## Yeavering

# An Anglo-British centre of early Northumbria 

Brian Hope-Taylor

Published by English Heritage, Kemble Drive, Swindon SN2 2GZ
www.english-heritage.org.uk
English Heritage is the Government's statutory adviser on all aspects of the historic environment.
© Crown copyright 1977
First published 1977 as Archaeological Report No 7 by Her Majesty's Stationery
Office for the Department of the Environment
Reprinted with corrections 2009
ISBN 978-1-84802-052-8
(ISBN 0-11-670552-3 original hardback edition)
Product code 51498

British Library Cataloguing in Publication data
A CIP catalogue record for this book is available from the British Library.

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Brought to publication by Robin Taylor, Publishing, English Heritage.
Printed in England by 4edge Ltd, Hockley.

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ro8 Reconstruction-model showing Ad Gefrin as it might have appeared to Penda and Cadwallon had they attacked Edwin's township from the air
109 Rim-sherd of wide-mouthed bowl 'YAS' from Building DI (b)
rio Cremation-burial 19
II Merovingian coin and gold washer

## PREFACE

This book embodies the results of field-investigations that extended intermittently over ten years, on a site that appears now beyond reasonable doubt to have been that Ad Gefrin of which Bede wrote.

There were three phases of excavation. The first began in 1952, when quarrying had exposed the site's S.W. flank to mechanized attack: a phase of hurried rescue of archaeological features within the quarry's immediate range. The second phase saw the focus of more deliberate investigations moving steadily northward and eastward year by year, to meet in advance the archaeological threat presented by plans for massive extensions of the quarry (which in the end did not materialize). This phase ended in 1957, when the owner found himself unable to keep the ground any longer available to the then Ministry of Works, under whose auspices I had directed the investigation.

By that time the problems posed by the site stood in clearer perspective, and need could be seen for a third phase of excavation (on a far smaller scale) to test some points that proved not to have been fully resolved during the first desperate phase of the investigation. Luckily the crucial part of the area involved still survived, hanging on the quarry-edge, and permission was at last privately obtained for its piecemeal re-examination in ig60-62. 1961 saw the last considerable exposure of archaeological features in plan, and so is taken as the 'historical' date of the investigation's end. Nevertheless, systematic cutting-back of the quarry's edge, in 1962, provided cross-sections that elegantly double-checked the complex stratigraphical interrelationships already observed within the remarkable monument here called the Western Ring-ditch.

In the light of that twice-examined evidence, the theft in 1960 of a brief-case containing the original MS nucleus of this book (on the Hauptbahnhof in Hamburg, of all bizarre places) could be viewed now as an anonymous act of both public and personal service; since the work of reconstitution required yet another total review of the evidence and threw into even sharper focus the need for further critical investigation in the field. The account of Yeavering hastily compiled and presented as an academic dissertation in 1961 inherited all the shortcomings of its predecessor: formal regulations, besides, set bounds too narrow for exposition of all the evidence, and so attention was concentrated on the later rather than the earlier aspects of Yeavering's record. The prehistoric cremation-cemetery was all but ignored; and the complicated data relating to the Western Ring-ditch still awaited the critical resolution that was achieved later in 196I and in 1962. As the present book will show, the effects of that reinquisition were such as to make the third phase of the investigation not the least important.

The evidence, now reasonably whole, strongly hints at an immensely long local continuity in some aspects of custom and observance; but what emerges most particularly and unexpectedly is the suggestion that 'British' traditions played so significant a part in the development of an 'Anglo-Saxon' royal township. Since formal publication of such a
hypothesis could be justified only by the assurance of some external evidence, I have tested it on other relevant sites noticed in the text; but it was only when an urgently threatened site on Doon Hill, Dunbar, was excavated in 1964-66 that the idea of a sixth-century British world able to provide rectangular timber halls, such as Yeavering's architectural development seemed to require, was given broader and more solid probability. That investigation is noticed here only in a footnote, and will shortly be published in another place: its main result, in the present context, has been merely the staying of my hand in deletion of some arguments and ideas that arose directly from Yeavering's evidence.

As seemed likely at the outset, Yeavering proves to be common ground between students both of those evidences that survive in writing and of those involuntarily 'stratified' records no less subject to erosion. Accordingly I cannot discharge my full responsibility only in the presentation of those archaeological 'facts' and observations recorded in Chapters Two to Five and in the appendices, as would more comfortably have sufficed in a wholly prehistoric or non-historic context. Things are otherwise, and from first to last I have felt myself simply the privileged reader of essential historical documents buried in the ground - documents couched in terms outside the historian's conventionally verbal vocabulary. It is consequently not the least of my duties to act as interpreter and translator for colleagues immensely more accomplished in historical and literary studies; and, since I alone have had constantly direct sight of the original evidence, they will wish me broadly to indicate what historical constructions the archaeological evidence will or will not bear. Hence I have been compelled, in Chapter Six, to follow such historical implications of Yeavering's archaeological evidence as I am able to see. That part of this book must surely be as clumsily inexpert as the brave excursions of some historians into archaeological excavation. It will be easy meat for any reviewer who is not moved by the serious discrepancies between archaeological evidences, on the one hand, and the currently conventional interpretations of such scanty and not unambiguous written testimonies as have chanced to survive; but if it provokes further research it will have served its purpose. At best, my errors may underline that need for more fundamentally interdisciplinary studies of early literate societies that Chadwick saw so clearly long ago. His bright vision has largely been ignored; specialized academic developments have been allowed to become progressively more divisive; and we still lack in Britain that institute in which the background and growth of medieval culture could be studied and taught by a group of scholars, trained in different but related disciplines, united by the common intention to take all the available evidence into account.

There is still, alas, an academic no-man's-land between archaeology and history.

Acknowledgements of indebtedness have been made in appropriate places in the text and footnotes. But even so I must point out that Yeavering's investigation and this book sprang in the first place from the aerial reconnaissance of Dr J. K. S. St Joseph (it was he who brought Doon Hill's cropmarks also to notice), and I thank him warmly for taking various air-photographs specially to help me in my researches. Much of Yeavering would have been destroyed unrecorded had not the late Sir Walter de L. Aitchison sounded the alarm when quarrying began, and had not the late Bryan St J. O'Neil, then Chief Inspector of Ancient

Monuments, so quickly responded to the dossier and plea I laid before him. Nor can the patient helpfulness of Mr John Purvis, Sr , and latterly his son, be overlooked, when it was their land which was so long subject to archaeological invasion. The investigation owed more than can be estimated to my assistant in the field, Paul Savage, who worked so loyally and hard to make good the deficiencies of a chronically understaffed operation. Both he and I were sustained throughout by the kindness and interest of many other friends and colleagues - foremost among them, Richard and Hester Atkinson, Stuart Piggott, the late Sir Ian Richmond, and Martyn Jope; and, indeed, the Aitchisons of Coupland. I offer my heartfelt thanks to them all; and to Lionel and Vera Rutherford, constant allies in the field these ten years past, in whose house in Wooler so many of these pages have been written.

Colleagues and friends in Britain, Scandinavia, Germany and the Netherlands, and the Leverhulme and Gilchrist Trustees, have sustained the 'interdisciplinarian' idea that originally prompted the investigation of Yeavering. If each, within this diversity, finds one particular little point of interest between these covers, a lonely adventure was justified and the best kind of thanks has been given. In 1952 I thought something was better than nothing. Meanwhile this has become a belated book, since most of its growing content has been given, stage by stage, in Cambridge lectures and supervisions from 1958 onwards. My apologies for such delays as have been of my own making are as sincere as my thanks to effectively contributive colleagues.

Eric Higgs and Michael Jarman did the essential stuff of Appendix I, in Cambridge. The Royal Botanic Gardens, at Kew, identified the charcoals for Appendix II. Isla McInnes's sensitively written and drawn assessments of Yeavering's prehistoric pottery are the core of Appendix III. Unacknowledged drawings and photographs are, alas, mine own.

Still, that part of $A d$ Gefrin which lies south of the Wooler-Kirknewton road remains uninvestigated. Outlying buildings of the royal township are manifested annually, whatever the farmer's sowing. More important is the clear indication that excavation would also yield material for elucidation of the shadowy period roughly from 500 BC to AD 500 .

Brian Hope-Taylor
Cambridge, 1969

## CHAPTER ONE

## THE SITE: ITS DISCOVERY AND TOPOGRAPHY

... Tantus autem fertur tunc fuisse feruor fidei ac desiderium lauacri salutaris genti Nordanhymbrorum, ut quodam tempore Paulinus ueniens cum rege et regina in uillam regiam, quae uocatur Adgefrin, XXXVI diebus ibidem cum eis cathecizandi et baptizandi officio deditus moraretur; quibus diebus cunctis a mane usque ad uesperam nil aliud ageret, quam confluentem eo de cunctis uiculis ac locis plebem Christi uerbo salutis instruere, atque instructam in fluuio Gleni, qui proximus erat, lauacro remissionis abluere. Haec uilla tempore sequentium regum deserta, et alia pro illa est facta in loco, qui uocatur Maelmin.

The Venerable Bede
Historia Ecclesiastica Gentis Anglorum II, xiv, f. 39b

## (A) INTRODUCTION: THE CONTEXT OF DISGOVERY

When Bede wrote the words that stand at the head of this chapter, he gave the royal townships Ad Gefrin and Maelmin their only known notice in history. ${ }^{1}$ Had the decision not been taken, a century earlier, that the former place should be the centre of Paulinus's Bernician mission, the identities of both would have been irrecoverably lost to us; for it was that choice that brought them within the scope of Bede's scholarly record of the activities of the Roman church in Britain.

Bede is not concerned to locate either site with absolute precision, but in indicating that Ad Gefrin stood close to the River Glen he sets it somewhere in the district now known as Glendale, west of Wooler in Northumberland; and there its name has remained attached to one small area during the thirteen centuries that have ensued since the township, on Bede's testimony, was abandoned. After passing from tongue to tongue and pen to pen over forty generations, it has emerged recognizably in our time as Yeavering or Yevering, ${ }^{2}$ and the connexion between Yeavering and the villa regia recorded by Bede has long been acknowledged. Camden, indeed, felt no doubt about the identity of either site; for in quoting the relevant passage of the Ecclesiastical History he notes firmly, of the one, 'Ad-Gebrin (at this day Yeverin)'; and of the other 'Melmin . . . at this day Melfeld'. ${ }^{3}$

Yet Mr Hogg could truly remark in 1949, ${ }^{4}$ in suggesting that a nearby earthwork was the site of the former royal centre: 'the identification of Adgefrin with Yevering seems never to have been doubted, but no convincing suggestion has yet been made as to the actual site of Edwin's "villa" '. By a strange stroke of chance, it was in the summer of that same year, 1949, that air reconnaissance disclosed at two places the existence of remains which are here identified as those of $A d$ Gefrin and Maelmin respectively. The earthwork whose claim to the former title was argued by Hogg has since been taken into the fold of Mr Jobey's native rectilinear sites of the Roman period. ${ }^{5}$ Its position is shown here in Fig. 2.

## 


$\triangle$ "ANGLO~SAXON" CEMETERY"?

- PLACE-NAME ENDING IN ~INGHAM OR $\sim$ ING

Fig. r. Map showing Yeavering in its regional, intramural, setting.


NATURAL LIGHT-SOIL ROUTE
FIELD-WAY VISIBLE ON AIR~PHOTOGRAPHS .............
Fig. 2. Map showing Yeavering in its local context, in relation to the Yeavering Bell oppidum and the course of the north-Cheviot dry-soil route. Land below $200^{\prime}$ O.D. stippled; contours at $50^{\prime}$ vertical intervals; rising to 1182 ' O.D. at the summit of Yeavering Bell. Rectilinear site $\frac{1}{4} \mathrm{~m}$. N. of word 'Bell.'

The new sites were observed from the air by Dr J. K. S. St Joseph, Curator in Aerial Photography in the University of Cambridge, during an exceptionally severe drought which brought to notice many previous unknown antiquities in various parts of the country. While gathering in his harvest of previously unknown Roman military sites in north Britain, St Joseph passed over Yeavering (Fig. I and Plate r) and photographed a brilliant series of cropmarks, there displayed by a field of growing oats (Plates 3 and 4). At Milfield, $2 \frac{1}{2}$ miles to N.N.E. (Fig. I), similar cropmarks were observed and photographed, at that time and in later years (Plates 7, 8 and 9, and Fig. 7). In due course a representative air-photograph of each site was published. ${ }^{6}$

In 195I, the writer subjected the Yeavering air-photographs to critical interpretation, with the specific object of determining whether the remains they indicated could possibly be those of the seventh-century royal township. The significant cropmarks consisted exclusively of dark outlines on a lighter ground (Plate 3). Those which were rectangular clearly represented hall-like buildings which, since they were manifested by darker, taller growth of the crop, had either been stone structures in deep foundations from which the stone had been completely robbed, or structures entirely of timber. The homogeneous character of the indications strongly favoured the latter alternative. The size, sophistication, diversity and number of the structures suggested that this had been a settlement of unusual status and importance; and as at least one seemingly 'public' building ( E ) was in evidence, the whole could reasonably be described as a township. It could be seen that several buildings had stood successively in one place, so that this township must have remained in existence for some time; and interrupted traces of a field-system (Fig. 73) indicated still earlier use of the site. Side by side with strange (and still unparalleled) features were two buildings which, from the form their revelation took, appeared to have had sunken floors and so could possibly be related to the Grubenhäuser characteristic of many post-Roman Germanic settlements. Altogether, on archaeological grounds, the possibility that this was the site of $A d$ Gefrin could be entertained.

At that stage the problem was taken into the field. There, Bede's terse topographical testimony was found to leave little room for doubt about the site of the royal township. He states explicitly that Ad Gefrin lay close to the River Glen, and so reinforces the general improbability of Edwin's villa having been placed on the side or top of a rocky hill. Probability, accordingly, is in inverse proportion to distance from the Glen. Boggy ground would prohibit permanent habitation of the land immediately beside the river; but between the Glen and Yeavering Bell there intervenes an irregularly ridged terrace of sand and gravel, which presents the most favourable conditions for settlement in the whole of the area to which the name Yeavering can reasonably be applied (Fig. 2). This offers two possible sites. One, now occupied by Yeavering Farm, is relatively small and irregular. The other is the glacial whaleback on which the cropmarks occurred. This, from its superior size, elevation and position, is obviously the more likely choice and accords well with the scale of the recorded events of 627 . It is the only site close to the river that is in all respects suitable, and, moreover, it lies in that western part of Yeavering which is still known as Old Yeavering.

Bede's statement that the township was abandoned in favour of another called Maelmin implies that the two settlements cannot have been very far apart. It indicates, too, that the end of the one coincided at least with the beginning of the other; and its wording could be
taken to suggest that these townships had co-existed for some time. Accordingly Ad Gefrin and Maelmin might be expected to have had some structural elements in common; and, indeed, it was evident from the outset not only that the major building visible among the Milfield cropmarks precisely paralleled in its main outlines one of the buildings manifested by the same means at Yeavering, but that a palisaded enclosure or 'fort' was a feature of both settlements (Fig. 7, cf. Fig. 12).

Thus, even before excavation began, it seemed likely that the cropmarks at Yeavering represented the $A d$ Gefrin, and those at Milfield the Maelmin, of Bede; and, in the event, Camden's bold claims - made over three hundred years ago and without access to evidence conjured from the air - were found to be justified.

In the year following the recognition of the potential importance of these two sites, the necessary informal overtures and approaches were made to learned and governmental bodies with a view to such a systematic programme of excavation as the outstanding merits of the sites demanded. This long process (familiar to all of those who are dedicated to archaeological research in Britain, but almost incomprehensible to their colleagues on the Continent) had hardly begun when the issue became one of emergency. In $195^{2}$ a small, disused sand-pit at Yeavering was re-exploited with various of the mechanized modern aids to archaeological destruction. Had it not been for the vigilance of the late Sir Walter de L. Aitchison (without whose kindness and zest for archaeology Northumbria is now so much the poorer), the threat to the western part of Ad Gefrin would have passed unnoticed and several of the buildings there would have been destroyed without record. Fortunately the importance of the remains at Yeavering had already been discussed with the then Chief Inspector of Ancient Monuments of the Ministry of Works, the late Mr B. H. St J. O'Neil, who took immediate action when Sir Walter's warning telegram was brought to his notice. Archaeological excavations began on a small scale at Yeavering in March 1953, directed by the writer on behalf of the then Ministry of Works. Thereafter, several months of each year were devoted to investigation of the main features of the settlement until the beginning of 1957, when further work in the central part of the site was prohibited by various factors. Between 1958 and 1962 the writer was allowed privately to carry out a series of smaller, supplementary excavations in areas around the eastern edge of the quarry. Even so, investigation of two areas of the site (the 'fort' or Great Enclosure, and the western of two cemeteries) unavoidably remains less extensive than could be wished; and as this book goes to press air-photography confirms (Plate. 6) that further cropmarks, previously observed from ground level, mark a small southward extension of the Yeavering settlement. Several minor halls, a square structure not unlike a Romano-Celtic temple, and a presumably preRoman palisaded enclosure, are clearly in evidence. The writer intends to investigate these and all other remaining features of the site as soon as the land becomes accessible.

## (B) LOGAL TOPOGRAPHY AND PLACE-NAMES

## I. Location

Yeavering lies at the western end of Glendale, where the northern foothills of the Cheviots give way abruptly to the fertile plain of the Tweed Valley (Figs. I and 2 and Plate I). It is
in that part of north Northumberland which marches with Roxburghshire, and anciently was in the heart of the Anglo-Saxon kingdom of Bernicia? (Fig. I, inset): territory which appears to have been occupied by the tribe known as the Votadini during the Roman period. ${ }^{8}$

Newcastle is 47 miles away, as the crow flies, to S.S.E.; and Berwick, a little east of due north, i6 miles. The road connecting the small market town of Wooler, $4 \frac{1}{2}$ miles to E.S.E., with the village of Kirknewton, $\frac{3}{4}$ mile to W., defines the southern edge of the field in which the cropmarks disclosed the township's remains.

This, the field which became the excavation site (National Grid ioo-metre reference NU 925306), covers the crest of a whaleback of glacial sand and gravel (Fig. 2 and Plate 2) lying between the River Glen and the foot of a great hill called Yeavering Bell (known familiarly among the local people simply as 'the Bell').

## II. Yeavering Bell, the oppidum and its field of view

It is Yeavering Bell which is the key feature of the landscape (Figs. 2 and 3, Plates I and io). Its bulk, position and characteristic shape make it an instantly recognizable landmark from far off. At close range it dominates the site of the ancient township and establishes those qualities of character and atmosphere which, though partially indefinable, are yet not wholly irrelevant to studies such as this. Local people still gauge time and distance, weather and the progress of the seasons by reference to the Bell; and its temporary excavating neighbours were not unaware that in December and January its broad, twin peaks occluded the sun for all but an hour of each day.

But Yeavering Bell has two more particular claims upon our attention: first in that it is crowned with the largest hill-fort in Northumberland, which lies at the focus of the densest concentration of native settlements in Northumberland (Fig. 4); ${ }^{9}$ and secondly in that it is from its commanding height (it narrowly achieves the technical status of a mountain by rising to $1182^{\prime}$ O.D.) that the setting of the ancient township can most directly be observed and demonstrated (Plates io and 12).

Both peaks of the hill are enclosed by the tumbled remains of what was once a massive, dry-built stone wall, the enceinte of the fortress. Within this defence, an area of about 13 acres, the ground is pockmarked (Plate 10) by the closely-packed sites of circular, scooped huts which, extending even to the most bleakly exposed and craggy parts of the hilltop, testify reliably to the former presence of a large population. The whole merits no less a term than oppidum, and it will be so designated here. Some of its huts were crudely excavated in the middle of the nineteenth century ${ }^{10}$ and yielded small finds referable at latest to the first century Ad. Further excavations, carried out by the writer in 1958 (Plate 12), ${ }^{11}$ produced two late-Roman minimi from a small pit in the floor of one circular hut, and three abraded sherds of true 'Samian' ware from two other circular hut-sites; besides establishing that in two cases circular huts were overlaid by rectangular drystone structures (e.g. Plate in), with which small fragments of crude 'native' pottery were associated.

The eastern peak of Yeavering Bell carries the remains of a small palisaded enclosure which presumably pre-dates the oppidum. It seems reasonably clear that the oppidum itself was built at the end of the first millennium bG and that its heyday came to an end in or by the first century after Christ. The meagre handful of later relics shows that part of the site was


METRES


Fig. 3. Plan of the Yeavering Bell ofpidum (the original Gefrin (maing afer Yobey).


Fig. 4. Distribution-map of native settlements in Northumberland (after Hogg).
occasionally used thereafter, but there is no reason to suppose that the old stronghold still served as a major, defensible centre. Indeed, the remains of its great stone wall are so completely flattened as to suggest that all may have been deliberately overthrown, and it is conceivable that this, like some other hill-forts, was slighted as a suppressive measure during the Roman occupation of its territory.

Southward from the oppidum, the hills rise to the peat- and cloud-topped bulk of The Cheviot; all today being uncultivated and given over to bracken, heather, bilberry and the rough grazing of the hill-sheep. Northward there is sudden and complete contrast: the Tweed Valley stretches out, tamed and fertile, joined to the west by Teviotdale with its extension of the dense north-Cheviot distribution of native settlements. ${ }^{12}$ In the western background of the northern view, the peaks of the Eildon Hills mark the site generally accepted as that of Trimontium, to which Dere Street runs its northward route from Corstopitum and Bremenium, most closely approaching Yeavering at NU 740189, a distance of about i3 $\frac{1}{2}$ miles. The smoke of Edinburgh can sometimes be discerned, over and beyond the Lammermuirs, to the N.W.; and North Berwick Law and Traprain Law thrust up more nearly to true N. Eastward, one looks along the steep northern frontier of the Cheviots to Dod Law (near Wooler) where there is a lesser but possibly significant concentration of native settlements; to the Devil's Causeway (at a remove of $6 \frac{3}{4}$ miles, the nearest Roman road); and ultimately to the coast, to take one's Anglo-Saxon bearings from Bamburgh and - with the eye of faith - Lindisfarne (Fig. I).

## III. Rivers, Routes and Geology

From this glancing preliminary view of the more distantly outstanding features of Yeavering's general context, attention may now be directed to the immediate surroundings of the whaleback.

Northward (Fig. 2) runs the Glen, born of the confluence of the Bowmont Water and the College Burn at Westnewton, $\mathrm{I} \frac{1}{4}$ mile W. of Yeavering. The river enters the narrowly constricted western end of Glendale at Kirknewton (where the church dedicated to St Gregory contains a presumably pre-Conquest sculpture of unusual interest). Continuing its eastward course, it hugs the northern edge of the widening valley until it puts out a sharp southward loop to the northern edge of the Yeavering whaleback. As it withdraws again, the northern, flanking hills die away and the valley opens out into the wide expanse of the Milfield Plain. The Glen flows on eastward and then northward to join the River Till, which running N.W., passes the Milfield cropmark site (Fig. I and Plate 7) and goes on in turn to join the Tweed between Coldstream and Norham.

Both the Glen and the Till are relatively wide and shallow, and easily forded. Usually many of the boulders with which their shingly beds are strewn are partially exposed, and at the present day there is generally an insufficient draught of water even for the lightest canoe. It might appear that local clearance of the most upstanding boulders could formerly have allowed the passage of small boats, given a higher water-table, were it not that some sections of both rivers are prevented from spreading out over low-lying areas only by the presence of artificial banks of very recent origin.

Thus, unless it can be postulated that these rivers had at the relevant time a more


Fig. 5. Map showing distribution in Northumberland of light alluvial soils, in relation to the distributions of early Anglo-Saxon metalwork and place-names.
vigorous, scouring flow, it would be difficult to maintain that the choice of either site was determined by the actual or potential value of the Glen and the Till as waterways. Rather, on the face of the matter, is it likely that the rivers influenced the choice negatively; in that, while they were unconfined and untended, large surrounding areas of low ground must have remained boggy and uninhabitable (perhaps even impassable). Marshy ground still survives here and there, despite modern drainage, and particularly around the north and east sides of the Yeavering whaleback.

It is notable that at Milfield, as at Yeavering, the remains of settlement occupy the crest of a ridge of sand and gravel; and the distribution of light-soil deposits in relation to the general relief of the region (Fig. 5) appears overall to have been a significant factor in early exploitation of the lowland areas. An almost unbroken series of habitation- and cemeterysites and stray finds, ranging in date from the mesolithic to the Roman and medieval periods, extends along the valley from Kirknewton to Wooler and beyond; and these evidences of Glendale's long-standing accessibility ${ }^{13}$ follow the line of a system of light-soil terraces, south of the Glen, of which the Yeavering whaleback is a culminant point. This constitutes the natural route indicated in Fig. 2, ${ }^{14}$ and the air-photographs (e.g. Plate 3) reveal on the whaleback remains of an actual road running between field-boundaries found to pre-date the township (Fig. 73). (Fig. 6 may be helpful towards modern perspectives.)

The Glen, flanking the north side of the route for about 3 miles east of Yeavering, has the character of a lowland frontier-line, and would effectively have confined east-west traffic to the narrow strip of light-soil ridgeway between its marshy borders and the Cheviot escarpment. At Yeavering, its southward loop so constricts the valley as to give the whaleback absolute command of the route. At the east end of the whaleback, a natural causeway passes between the boggy ground south of the river and an extinct watercourse that divides the whaleback from the northern side of Yeavering Bell. The modern road kinks in order to follow the line of the causeway, skirting the north edge of a boggy patch, and the fragment of ancient road referred to above appears to proceed from the same point.

Thus, the Glen combines with the relief and geology of the area to give the Yeavering whaleback the character of a gateway at a nodal point on the natural lowland route skirting the northern edge of the Cheviots. Given that there was need for a major settlement in that area, the choice of site was obvious and logical on all counts. The Milfield cropmarks lie on what may be regarded as the alternative branch of the route from the areas south and east of the Cheviots into the Tweed Valley. It is probable that the 'fort' there (also on a river bluff) (Fig. 7) was the original nucleus from which the township later took rise, and there is a distinct possibility that it is coeval with the similar palisaded enclosure at Yeavering.

This section could hardly be closed without reference to the particular historical distinction which is likely to attach to the tip of the Glen's southward loop at Yeavering. It was on its southern edge, surely, that the mass-baptisms were carried out by Paulinus in 627. ${ }^{15}$

## IV. The Whaleback

It is unnecessary here completely to describe the conformation of the whaleback, since the map in Fig. 2 and the general plan of the excavations (Fig. 12) fully demonstrate its relief; but it should be pointed out that its northern and eastern sides are the most abrupt, and


Fig. 6. Diagrammatic maps of the Tyne-Forth province in modern times: (A) arable land; (B) soils, good, middling and poor; (C) land utilization; (D) schematic definition of the Coastal and Central Zones of the Tyne-Tweed region (A, B and C after O.S.)
that their steepness increases steadily towards the point at which they meet (marked by the northern end of the firwood visible in Plate 1 ).

The obsolescent Wooler-Kirknewton railway line runs along the base of the northern side, in one section through a cutting which breaches a curving protuberance at the foot of the whaleback. Mr J. Purvis, the late owner of Yeavering Farm, of which the site is part, told the writer that when the cutting was made in $1885-86$ his father was a witness to the


Fig. 7. Plan: cropmarks at Milfield (Northumberland), presumably representative of Bede's Maelmin. Drawn largely from air-photographs in the University of Cambridge Collection of Aerial Photographs, but verified and extended by fieldwork on the ground.
discovery of 'enormous quantities of horse-bones' in its eastern half. Mr Purvis, Sr, had emphasized that the bones were those of horses and not of cattle: it was this particular circumstance that he considered remarkable. It appears that the bones represented complete and articulate skeletons, that they lay either in an extensive and very shallow grave or on the natural surface of the subsoil, and that the greater part of the soil covering them had been washed down from the whaleback. The date, and even the identification, of these remains must be regarded as uncertain, but the possible relevance of this discovery lies in its having been made at a point almost directly below the entrance to the palisaded enclosure which is seen in the air-photographs to occupy the eastern part of the whaleback's crest (Plates 3 and 4).

## V. Old Yeavering

The western edge of the whaleback is defined at one point by a stream, which runs down between the western side of Yeavering Bell and the eastern side of the neighbouring Westnewton Hill, passes the site of the township and joins the River Glen (Fig. 2). The place where it reaches the floor of the valley is known as Old Yeavering, in contradistinction to Yeavering Farm, a mile to the east. Two conjoined nineteenth-century cottages are today the only dwellings at Old Yeavering, but the ground round about them - particularly to the south - is faintly ridged and terraced by the buried remains of earlier foundations. These indications probably represent a settlement which appears in late-medieval documents. ${ }^{16}$ Consequently, particular interest attaches to a third building, used until recently as a barn and now converted (by great enlargement of its originally narrow north doorway) into a garage which stands to the south of the cottages. Locally it is called 'King Edwin's Palace', and this name was formerly attached to it on the $6^{\prime \prime}$ O.S. map (though now transferred to the whaleback, with the additional words 'site of'). Hogg'17 describes this building (mistakenly in the writer's view) as 'a medieval cottage'. Although excavation in its floor, in 1955, produced seventeenth-century pottery from the basal layer underlying deposits 3 feet deep, a medieval origin is not impossible; but that this structure began its obviously complex history as a mere cottage is open to extreme doubt. The lower parts of its walls (the upper storey is a later addition) are 5 feet thick, pierced by internally splayed windows of uncertain date and retaining the bases of large tree-branches which formerly served as rafters. Behind this building, to the south, is a rectangular enclosure bounded by the remains of a remarkably substantial stone wall; beside which the banks of the stream carry the breached remains of a dam, testifying to the former existence of a water mill. It seems most likely that here was a small late-medieval or immediately post-medieval centre, and that the surviving building was at one time its mill-house. While the possibility remains that the building was originally a residence of some kind, there can be no hesitation in dismissing its local name, or rather nickname, as the lingering result of a belated and fanciful christening, probably performed by a local eighteenth- or nineteenth-century parson who knew his Bede. Doubtless the name was attached to this particular structure because it was the only building in the area whose origin was unknown to history and beyond memory.

The leading characteristic of western Glendale's climate at the present day is a very strong and persistent W. to S.W. wind, often rising to 8 on the Beaufort Scale and occasionally to 12. This is a local intensification of a regional characteristic, and appears to be due to a Venturi effect produced by the constriction of the valley west of Yeavering.

The excavations produced evidence which suggests that there has been little change in the prevailing wind direction and force in the last four thousand years. A pit, containing related fragments of Rinyo-Clactonian pottery, another containing part of the base of a Middle or Late Bronze Age urn, and graves certainly contemporary with various phases of the township, all showed differential erosion of their sides exactly corresponding with that suffered by modern excavations on the site when left exposed for a few days. This local condition is of sufficient severity possibly to have influenced the orientation and constructional form of early buildings; as, indeed, it will be shown directly to have affected the course and technique of the site's investigation.

## VII. The names Yeavering and MaElmin

The antecedent forms of the modern name Yeavering ${ }^{18}$ obviously do not allow of its ending -ing being interpreted as a sign of early Anglo-Saxon settlement.

Bede is the one independent authority for the earliest known form of the name. ${ }^{19}$ Plummer ${ }^{20}$ prefers the Adgefrin (or Ad Gefrin) of the Moore MS. to the adgebrin of Cotton, Tiber. C ii (the latter form occurs also as an alternative to Adgefrin in Cotton, Tiber. A XIV): he equates the name with the modern form (which, incidentally, he spells as Yeverin), and comments extensively on Anglo-Saxon use of the local preposition $\operatorname{Ad}$ (Aet).

Ekwall ${ }^{21}$ cites both the above early forms of the name, and adds Yever (1242) and Teure (1329). Gefrin, he says, is evidently the old name of Yeavering Bell. He derives the name from Welsh gafr 'goat' or a compound containing the word, e.g. a name with Welsh bryn (mutated fryn 'hill') as second element.

Professor Kenneth Jackson has most kindly re-examined the derivation and meaning of this name, at the writer's request. His conclusion is that if, as he considers most probable, Gefrin is to be derived from Welsh gavr, 'goat', the plural form - approximately gevr by the second half of the sixth century - is indicated; giving gevr-vrinn or gevrinn, with the meaning 'The Hill of the Goats'.

Topographically and archaeologically there is every reason for supporting Ekwall's attribution of the name originally to Yeavering Bell, where the oppidum appears to have been in its time a major Celtic centre of its region. In that region it is excessively unlikely that so small a feature as the Yeavering whaleback, overshadowed by the towering bulk of Yeavering Bell and all but surrounded by the massive outliers of the Cheviots, could itself have given rise to a name meaning 'hill'. Hence it is most reasonable to conclude that the name of the pre-existing Celtic centre was simply transferred to the Anglo-Saxon royal township.

The name Maelmin presents special problems which have not as yet been fully examined. There is a lack of forms intermediate between that used by Bede and the Melfelde of latemedieval documents, and the apparent transformation of the originally Celtic name cannot
be explained on a secure basis. Presumably Mael- is derived from the British * mailo 'bare' or 'blunt' (as in Mailros = Melrose). ${ }^{22}$ The second element, -min, possibly relates to Welsh mynydd; which, although usually translatable as 'mountain', often means merely a tract of wild unenclosed land, such as a common, without there being necessarily any reference to extreme hilliness. Thus it is possible that Maelmin meant 'a bare (treeless?), or smooth, tract of unenclosed land'. This interpretation could well be consistent with the early topography of the Milfield cropmark site; but stress must be laid on the weakness of its basis.

## VIII. The River-names Glen and Till

Little can usefully be said about these names save in acknowledgement of the probability of Ekwall's most recent pronouncement on them, ${ }^{23}$ which derives Glen from Brit. glano 'clean, holy, beautiful', with suffix $-i \bar{a}$ or $-i c$; and suggests that Till may be cognate with Welsh tail 'to dissolve, flow', the name possibly meaning 'stream'.

As is well known, both of these river-names also occur in Lincolnshire.

## IX. The name Bell

Smith ${ }^{24}$ cites Yeavering Bell as an example of OE belle (as dial. bell) used in a transferred sense of 'a bell-shaped hill'; and it appears that the name is yet another instance of that tautology which is so common in hill-names. A hill two miles west of Yeavering, near Westnewton, is known as Hethpool Bell, and there are other examples of this element in the hill-names of northern Britain.

It may be remarked that it is usually only by some stretch of the imagination that these bell hills can be accepted as being any more bell-shaped than many others; but as no early occurrences of the name are recorded in this instance further discussion of its derivation and meaning is not justified in the present context. The essential point is that here Bell is clearly a later addition to the original British name, probably brought about by the need to distinguish the hill from the settlement in the valley to which its name had been transferred.

## (C) THE PATTERN OF EARLY SETTLEMENT IN BERNICIA

$A d$ Gefrin stood in 627 against the political background of a comparatively recent transference of power from British to English leaders, the actual date and means of which will be discussed in the final section of this book. There were more convenient and less bleak Bernician lands in which this Anglo-Saxon royal centre could have been established; yet it was sited at the very edge of the Cheviots, far from Bamburgh, in what is today a quiet backwater. It could hardly be supposed that its location was determined by a mere whim, or that there was no special reason for its existence. The fact that it was to Yeavering that Edwin took Paulinus, in preference to any other centre in Bernicia, is enough to indicate that the place had some particular relevance to the contemporary situation. The crucial question is whether the Yeavering district had newly gained its importance through the imposition of an Anglo-

Saxon pattern on the Bernician landscape, or whether the royal centre was set up there in recognition of the established significance of the place in the native world. That question can be approached only by reference to what is known of the earlier pattern of native settlement in the Tyne-Tweed region.

Mr Hogg's well-known distribution-map of native settlements in Northumberland (Fig. 4) may not tell the complete story (indeed it will be argued at a later stage that it represents only one aspect of a complex situation), but unquestionably it reveals the activities of a substantial population in and around the Cheviot foothills at the end of the first millennium BC and to some extent later, and it shows that there were then certain areas of especially dense occupation. The greatest single concentration of settlement-sites occurs at the northern edge of the Cheviots, and it appears that the Yeavering Bell oppidum was its focal point. It is reasonable to suppose that by the first century AD at latest this, the original Gefrin, had become a major political (tribal or sub-tribal) centre, either of the immediately surrounding area or of the whole region between Tyne and Tweed (in which there is no other monument of comparable character and size). Thus it is apparent that the AngloSaxon royal centre to which Paulinus was taken by Edwin lay at the heart of an ancient British district and was known by the name of the earlier seat of power. It is reasonable, therefore, to suspect that the setting up of an imposing township there was a direct and deliberate reference to the traditional native institutions of the area.

Such continuity would imply that a substantial body of the native British population and its traditions still remained intact when power passed into English hands. The general probability of some degree of British survival north of the Tyne is widely acknowledged; but, since the archaeological record is so fragmentary, can it be assumed that the distribution of earlier native settlements has any relevance to the situation which existed in the sixth and seventh centuries ad? Between the heydays of the 'British' Gefrin and the 'Anglo-Saxon' Ad Gefrin there is, after all, a gap of several centuries.

There is in fact good reason to interpret the density of early settlement in and around the northern Cheviot foothills as a direct response to a geographical factor of enduring importance. When the distributional pattern of the native settlements (Fig. 4) is viewed in relation to the geology and physical relief of the region (Fig. 5) a striking correlation is revealed between the areas of exceptionally intensive occupation and the incidence of pervious soils such as gravels and sands. Nowhere is that correlation more impressive than in those lands abutting on the northern foothills of the Cheviots that are now especially in question. It can be no accident that the dense mass of monuments clustered around the Yeavering Bell oppidum developed alongside the greatest tract of easily cultivable soil in the whole region, which otherwise is characterized by tough boulder-clay. If, then, the fundamental pattern of native settlement was determined by the availability of pervious soil, it is unlikely to have been disrupted by mere political changes. As long as any substantial part of the native population survived, only a revolutionary innovation in basic farming methods would cause the established focus of activity to shift.

Our knowledge of early farming in the Tyne-Tweed region is minimal; but the problems may be put into perspective on a topographical basis. The region consists of two zones which lie more or less concentrically around the hard core of the Cheviot massif (Fig. 6, D). First there is what may be called the Central Zone, in which the belt of pervious soils is flanked, on
the one side, by the eastern and northern slopes of the Cheviots and, on the other, by the lesser upland mass of the Chatton and Bewick moors. Second, there is the Coastal Zone, a tract of boulder-clay which forms the coastal plain of Northumberland.

Obviously the Central Zone was the natural scene for early agricultural development. It alone offered 'easy' land, to both the hoe and the light plough, giving opportunity for successful mixed farming on a fairly large scale, with the possibility of such seasonal alternation between lowland and upland pastures as is still practised there today. Until such time as the potentially richer lands of the Coastal Zone could be exploited by use of a heavy plough, the Central Zone is likely to have been the main regional centre of cereal-cultivation; and that possibility will be examined more critically at a later stage.

As has been observed, the Central Zone carries a very high proportion of the region's visible monuments, which implies the existence there of a correspondingly large population supported by farming. Leaving aside the topographical argument that has been advanced, does the archaeological evidence give indication of the type of farming involved?

The native economy of this and other north-British regions is generally agreed to have been dominantly pastoral, and the visible upland monuments appear to offer even stronger support to that conclusion than is commonly recognized. Among those monuments are many called 'forts'; but few have any real claim to such title. The Yeavering oppidum stands out obviously from the rest - the Maiden Castle, so to speak, of the Tyne-Tweed region because it alone is both large enough to have sheltered the people and stock of any considerable community, and so sited as to be strongly defensible and potentially strategic. Otherwise, in the whole of the region, there are not more than seven other works of the hill-fort type that could be thought to have been built with any truly strategic intention; and none of those is more than half the size of the Yeavering oppidum. The rest of the so-called 'forts' are small fry indeed, and they exist on sites that are defensively so weak and unimportant as to deny the possibility of any such military intention as the name suggests. Let us then call them simply 'defended enclosures' or 'defended hilltop enclosures', and ask what purpose they can really have served. Their defensive strength is of just such an order as would render them proof against wild animals and small bands of human marauders - as it might be, cattle-raiders - and it is reasonable to conclude that that was the order of the threat they were calculated to frustrate (archaeologists tend to see warriors behind every palisade, and cry wolf too seldom). Hut-sites are in evidence in some, though not all, of these defended enclosures, and it could be thought that they were, overall, simply homesteads. But if they were permanent homesteads, it would appear that the lives of their builders must have been dominated by upland interests; whereas we have seen that it was apparently the availability of lowland tracts of light soil which determined the focus of their distribution. Moreover, most of the monuments now in question lie on high ground that, at the present day, is subject to frequent snowfalls from November to April, while the valleys and plains below usually remain green and open for the greater part of the winter. Since lowland settlement was not only possible but desirable, it is difficult to accept that the defended enclosures on the hilltops were necessarily occupied all the year round. Equally it is implausible that all existed purely and simply to provide places of refuge for human populations in time of emergency. Rather does it seem likely that they were highland farming bases, normally used only in summer when the beasts were driven into the hills to graze,
and that in winter activity focused more narrowly on the lowland pastures and settlements. If so, they were upland seasonal centres approximating to the hafod, and are better thought of as corrals than as forts. Some of the palisaded enclosures in the lowlands that air-reconnaissance has recently brought to knowledge might well be corrals also, and it is possible that there are among them works which were actually complementary to the better-known monuments in the hills.

What appears at first to be a grave objection to this hypothesis immediately presents itself. If, as on both topographical and archaeological grounds has here been suggested, native life in the Central Zone was subject to a seasonal rhythm in the balance between highland and lowland activities, the valleys and plains should yield at least as much archaeological evidence of occupation and use as do the hills. Yet our distribution-map shows us a marked preponderance of settlements in upland areas. This seems to deny the hypothesis of early exploitation of favourable lowland areas, and has indeed led some to suppose that the lowlands were actually unfit for human habitation until later times. However, it is notoriously dangerous to assume that any distribution-map tells a whole truth. Its positive statements may be trustworthy as far as they go, but its negative testimony requires more careful investigation. In the present case it is plain that while the distributionmap shows some of the effects of topographical factors on early human settlement, it is also no less a demonstration of the way in which those same factors tend to control the processes of archaeological discovery.

It has to be recognized that the physical structure of the Tyne-Tweed region, and of others like it, tends to produce unbalance in archaeological discovery. There is an exceptionally high rate of visible survival among its upland monuments of earth and stone because most of the land above the $400^{\prime}$ contour has remained untouched by the plough, and the archaeologist can recognize and record with ease what must be a very great proportion of the whole. ${ }^{25}$ Consequently the highland areas figure impressively on the distribution-map.

The matter is quite otherwise in the lowlands. There, when valleys and plains are opened up for cultivation and settlement, timber - the by-product of land-clearance - is likely to become the main medium of a distinctive building tradition, which will persist at least until the process of deforestation is nearly complete. Once the process of exploitation has begun, moreover, occupation and cultivation of the fertile lowlands is likely to continue indefinitely. Hence it may be said that the archaeological reflex of many lowland areas is concealment of ancient settlements and other monuments: first, in that their settlers are led to build in timber, which decays quickly and completely, and secondly in that agricultural continuity causes widespread obliteration of early earthworks by the plough.

Accordingly, while there is every reason to believe that Mr Hogg's distribution-map of native settlements in Northumberland represents the highland aspect of the situation with a high degree of realism, it is extremely likely that significant numbers of settlement-sites remain undiscovered in some of the blank lowland areas. The truth of this assertion is being shown more convincingly year by year by the continuing revelations of aerial reconnaissance. The discovery of the lowland townships at Yeavering and Milfield in itself directly illustrates the general point; but the less dramatic, piecemeal recovery of the pattern of minor settlement-sites below the $400^{\prime}$ contour is of more particular relevance, and
shows already that native life in the Iron Age (and in earlier periods) was not as tightly confined to the hills by lowland swamps and forests as some have suggested. ${ }^{26}$

As yet, any attempt to assess the precise balance between the highland and lowland aspects of native life would be premature; but the trend of the evidence can be illustrated by reference to the nature and location of various antiquities recently discovered on low ground in the neighbourhood of Yeavering itself.

In the valley of the Glen, between the I50' and 200' contours (Fig. 2), the archaeological record begins with microliths, blades and the debris of mesolithic flint working, and is continued by neolithic 'ritual' pits and a long series of cremation-burials which appears to represent every phase of the Bronze Age and to run through most of the first millennium ba. A standing-stone of the Bronze Age and four palisaded enclosures referable to the preRoman and Roman Iron Ages are known within a quarter-mile radius of Yeavering, on level ground between the same contours, and another native settlement-site yielding pottery of the second century after Christ has been found in a similar situation near Humbleton. Between Milfield and Akeld, at no great remove from the putative site of Maelmin, aerial reconnaissance has revealed the presence of three henge-monuments, one of them of impressive size, again near the $I_{50^{\prime}}$ contour.

All indicates, then, that the river terraces and other lowland tracts of pervious soil were open to human use and occupation from the neolithic period onward. The distribution of beakers and Bronze-age antiquities ${ }^{27}$ indicates that settlement extended over more considerable lowland areas in the coastal plain of north Northumberland well before the first millennium bс. That is a matter of some relevance to the present issue, as persistence of Bronze-age traits (e.g., in pottery and presumably in house-form) is an acknowledged characteristic of native culture in this region even in the early centuries AD. The pattern of Iron-age settlements shown in Mr Hogg's map is indeed suggestive of a leached-out version of the Bronze-age distribution, ${ }^{28}$ and this general correspondence is likely to become more rather than less marked as our knowledge of the lowland settlements develops.

However, although there are certain geographical points of resemblance between them, the Bronze-age and Iron-age distributions are curiously antithetical in composition. Whereas the Bronze Age is known to us largely from characteristic funerary and 'ritual' monuments and grave-goods, our conventional picture of the Iron Age in this region is made up almost entirely of those kinds of settlement-site that happen to survive visibly. While our inability to discover (or to recognize) Iron-age graves in this region presumably reflects a lateprehistoric trend towards unfurnished or poorly furnished burial, without lasting monuments, the persistent absence of Bronze-age settlement-sites from the archaeological record is a matter of more general significance. Since it is obvious that such sites must exist in fairly large numbers, it demonstrates that the negative aspect of any distribution-map of early settlements in this region is untrustworthy.

In short, Mr Hogg's distribution-map is a record of conspicuous sites on certain types of land that are too rugged, too high or too poor for modern cultivation. Nevertheless it is still, within those limits, a valid statement of one part of the Iron-age situation. However impressive the complementary lowland aspect of that situation may ultimately prove to be, the extraordinary concentration of upland sites in the Yeavering district - which was the start-ing-point of this discussion - must be significant in one way or another.

At an earlier stage it was suggested that, although many of those sites were probably centres of pastoral activity, the fact of their being massed together so close to easily cultivable land may denote a mixed farming economy with a lowland aspect that is partly concealed. That possibility must now be examined.

As Piggott has pointed out, ${ }^{29}$ it is evident that the plough played a far less conspicuous part in North Britain during and before the Roman Iron Age than it did in the more congenial lands to the south. It appears, moreover, to have been adopted in the north at a relatively late date, presumedly in the last quarter of the first millennium ва. The rotary quern is certainly in evidence in North Britain from about the first century bc (possibly earlier), supposedly introduced by hypothetical groups of Iron-age immigrants whose characteristic techniques in earthwork and stone are seen in the defended enclosures of the uplands. If the incomers did not succeed to the same extent in popularizing the plough, no less essentially a part of their cultural equipment in the south, their failure might be attributable partly to the different agricultural character of the new territory; but it would say something also about their social and numerical strength, relative to the native, 'Bronze-age' population. It could indeed be argued, from other indications, that the immigrants were disposed to 'go native' fairly quickly. Their own tradition in pottery-making was almost completely ineffective, and the vilely debased native wares remained the common ceramic currency of the region. There, again, the hill-fort tradition itself appears most often in degenerate form, in works that lack the nobility of scale and sense of broad communal purpose which are characteristic in the south. Overall, the picture is one of culturally weakened social groups yielding to native, Bronze-age, ways in an unfamiliar environment. In those circumstances it is not unlikely that the transplanted idea of the plough would be slow to spread to the least tractable areas of the north; whereas adoption of the rotary quern, as Piggott observes, would be of immediate benefit even to the hoe-cultivator.

Nevertheless, it is unthinkable that the rewards of plough-agriculture had been altogether forgotten by the 'immigrants' themselves. They remembered and used both the rotary quern and their repertory of fortification; and when we find the Yeavering oppidum lording it not only over so many sites characterized by those features of Iron-age culture but also over the region's best tract of soil for the light plough, it still remains difficult to believe that the plough was not locally effective in shaping the pattern of their settlement.

Hence it is a matter of special interest that a field-system of the so-called 'Celtic' type is actually present at Yeavering (Fig. 73). However, although the evidence allows of its being pre-Roman, it does not provide proof that this was the case. All that can be said, on the one hand, is that the fields were laid out over a long series of cremation-burials, the latest of which were in undatable urns of 'UltimateBronze Age' character; and, on the other, that they were being used during some part of the 'Roman' period. The possibility remains, therefore, that these fields came into existence as a result of Roman encouragement of native agriculture.

Apart from what appears to be another group of fields half-a-mile to the east of Yeavering, in a combe cutting into the north face of the Cheviots, there are two published sites in the intramural region that are particularly relevant to this issue: Tamshiel Rig and Crock Cleuch in Roxburghshire. ${ }^{30}$ Both appear to have been in use during the period first-fourth century AD, but it is by no means impossible that the Crock Cleuch site in particular was of earlier origin. It has to be remembered that the Celtic Iron Age at this latitude
offers so very little in the way of diagnostic domestic objects that the dates of native settlements are, as often as not, judged by reference merely to the presence or absence of provincialRoman pottery and metalwork; which is to say that some of those sites may be of earlier origin than is demonstrable.

Clearly, the question of the date of the first plough-agriculture in the intramural region must be left open; but it seems fair to assume that by the second century AD its extent was rather more considerable than the archaeological record at present shows. The fields of Crock Cleuch and Tamshiel Rig lie on land that is at the present day marginal, and it is conceivable that they represent but the fringe of greater and more fertile areas of ancient agriculture, concealed - like the Yeavering field-system - by modern cultivation.

The fields at Yeavering do, at all events, give substance to the hypothesis that the Centra Zone and its immediate environs supported mixed farming in or before the Roman Iron Age. What of the Coastal Zone meanwhile? The plough-share in the Eckford hoard ${ }^{31}$ shows that equipment suitable for cultivation of more difficult land reached southern Scotland by the first or second century AD; but it is impossible at present to suggest where and to what extent it was actually used. Whatever the condition of the Coastal Zone in earlier times, however, it is clear that the periods of Roman occupation must have contributed decisively towards its unification and exploitation. The roads, and especially the Devil's Causeway, cut such swathes across the landscape as would link scattered areas of earlier clearance and settlement; and it would not be surprising to find that the way was opened up for further land clearance and farming in the Coastal Zone at about the same time.

At this point the main terms of this approach to a general hypothesis may usefully be summarized and clarified.

The light-soil tract of the Central Zone may be regarded as the natural primary area of human settlement in the Tyne-Tweed region. Its henge-monuments imply the early existence of a fairly considerable farming community in this area of easy clearance, and deforestation of the surrounding heavier lands may first have begun as part of an expansion from this nucleus. Later, clearance became more widespread as the distribution of Bronze-age remains indicates, and it is evident that new pastures had been won on the boulder-clay before the arrival of elements of 'Iron-age culture'. It is conceivable that the Central Zone was by then already the province of an élite supported by mixed farming on a larger scale than was possible elsewhere in the region; but, be that as it may (and with due allowance for the hazards of uneven discovery), this zone particularly does appear to have been seized upon by the newcomers. The status of those immigrants is difficult to assess; but there is much to recommend the accepted view that they simply imposed themselves as overlords, ruling a native population of degenerate Bronze-age culture. It is reasonably likely, though not certain, that the most advantageous part of the Central Zone became their special preserve, and that some part of the land there was put under the plough. At all events, it is likely that the first Roman occupation of the region found the Central Zone - a largely self-sufficient area with both lowland and upland activities governed by a natural, seasonal rhythm - more advanced culturally and agriculturally than the Coastal Zone. From that time onward, however, the balance was to shift gradually from the one to the other. The Central Zone
might for some time maintain its old position, but it had reached the natural limit of its development. The Coastal Zone had a still greater potentiality, which was to be realized during the following centuries. Roman concern with communications, both by land and by sea, with provisioning, defence and administration, is likely to have stimulated and directed the most formative phase of coastal development.

Now, if there is any truth in that hypothesis, the period from the third or fourth to the sixth century in Bernicia was one of actual or incipient transition in more than politics. The historical data will be considered at a later stage (Chapter 6), and here it is sufficient merely to note that it is the Bamburgh area which is the focus of recorded events from the middle of the sixth century onward. The choice of a coastal stronghold as the major political centre of the region must surely involve or reflect the growth of an important community over a wider range of the seaboard; and effective development of some kind of farming on the coastal belt of boulder-clay is implied.

Such a situation is indicated by the distribution of early Anglo-Saxon indices in the Tyne-Tweed region. The occurrences of those forms of English place-name that are accepted as typologically the oldest - those ending in -ing and -ingham - are shown in Figs. I and 5 . Although they cannot be dated in absolute terms (and it will later be argued that they are in the main more likely to belong to the seventh than the sixth century), their distribution is of the greatest interest. They form a reasonably compact and apparently homogeneous lowland group, within a radius of eight-and-a-half miles from the middle waters of the Aln and its tributary the Eglingham Burn. Edlingham lies half-a-mile from the Devil's Causeway; Whittingham, a mile; Eglingham, three miles; and Chillingham, a mile and a half; and there is perhaps a connexion between those English settlements and the Roman road. Ellingham, a little over six miles south of Bamburgh, to the east of the Bewick and Chatton moors, is on several counts an exceptional instance. Birling, putatively the oldest English name in the region, is situated within half-a-mile of the coast, roughly two-and-a-half miles from the mouth of the Aln, and its location gives point to suspicion that overall this group of placenames represents primary English settlement in the Aln Valley, with the Roman road serving as a corridor for its northward extension to Chillingham. Ellingham, in that case, might represent a similar northward movement, on the other side of the Chatton-Bewick uplands, from the same nucleus.

The first inference to be drawn from that distribution is that the mouth of the Aln may have been of outstanding importance at an early stage in the English settlement in Bernicia. This point has received little notice in the past, as is natural enough in the face of Bamburgh's dramatic appearance in history as the outstanding political and strategic centre of early Bernicia. There is, nevertheless, general acceptance of the idea that the Bamburgh district was possibly but one part of a wider coastal area subject to early Anglo-Saxon influence. The advantages of the Aln estuary as an entrance-point are considerable, and appear to be acknowledged even in the Bronze-age distribution. ${ }^{32}$ Not the least of them is the easy access it gives to the coastal end of that natural light-soil route (on which Yeavering lies at a crucial midway point) into the Upper Tweed Valley (Fig. 5). There is a hint, indeed, that such development of the Coastal Zone as there may have been in earlier times dimly foreshadowed
the shape of things to come; for the only significant coastal extensions of the Bronze-age and Iron-age distributions coincide between Bamburgh and the south bank of the Aln. In contrast, the seaboards from north of Bamburgh to the Tweed and from the Aln to the northern edge of the Tyne Valley - the latter area roughly approximating to the modern dairying country over the Upper Carboniferous deposits - remain almost blank throughout.

Further geological investigation is required to show whether or not the pattern of early settlement in the Coastal Zone was influenced by some favourable variation in the composition of the boulder-clay between Bamburgh and the Aln. However that may be, there is a clear association between the earlier types of Anglo-Saxon place-names and boulder-clay. With only one exception, the -ingham names occur on and are surrounded by boulder-clay. Whittingham alone is set on a small, narrow island of alluvium, but it is bordered closely to the south by the clay lands. The same correlation appears in the other east-coastal kingdoms, and is usually taken to imply Anglo-Saxon use of a heavy plough. Nevertheless it is possible that the pastoral aspect of the early Anglo-Saxon settlements has been somewhat underestimated. Querns of various types are a constant feature of the Celtic world, but none has yet been found in an early Anglo-Saxon context in Britain. It would be premature to judge the issue at the present time; but if this lack persists, the implication will be that animal husbandry was the basis of the early Anglo-Saxon economy (unless it can be shown that communal water-mills were used from the very first). ${ }^{33}$

The most striking feature of the place-name distribution is the absence of typologically early Anglo-Saxon forms in the heart of the Central Zone - the 'easy' nucleus of the region. It is natural to suppose that the earliest Anglo-Saxon land-takers would have been quick to exploit the advantage of that district, like the pre-Roman immigrant overlords before them; but there, where the early imposition of new, Anglo-Saxon, names might so reasonably have been expected, there is none. On the contrary, what is particularly notable is the seventhcentury survival of two Celtic (British) settlement-names.

The general question of the survival of Celtic place-names has been authoritatively discussed by Jackson. ${ }^{34}$ On the basis of British river-names he has divided England and its borders into three areas, of which Area I is the zone of least survival and Area III that of the greatest. In the regions with which we are here concerned, his map draws the division between Areas II and III approximately along the western borders of Durham and Northumberland. The map shows, nevertheless, that those two counties are distinguished by a higher incidence of certainly or probably Celtic river-names, area for area, than is to be seen in any other district in Area II save that around the headwaters of the Trent. Statistically, indeed, there is a case for drawing the northernmost division between Areas II and III eastward along to the Tees to the coast which would bring Durham and parts of Northumberland into the zone of maximal survival; but that, however, is to press Jackson's most illuminating demonstration further than it was ever intended to go. River-names do not, in any case, tell the whole of the story. Although (disregarding for the moment Ad Gefrin and Maelmin themselves), Jackson is clearly right to point specially to the heavy concentration of surviving British place-names on the western borders of Northumberland, the contrast between Cumberland and Northumberland is lessened - as the same author indicates in another work ${ }^{35}$ - when allowance is made for British reoccupation of Cumberland in the tenth century. Nor indeed is the matter really to be conceived of in terms of modern counties or
sharp, simple divisions. Rather have we to think in terms of a ragged, diffuse fringe extending from the Lothians to the Tweed Valley and the Cheviot massif, and thence into Dumfriesshire. The Yeavering district is shown to exist in, or as an island extension of, that Celtic fringe even by a broad view of what survives at the present day - which is not, of course, at all the same thing as what survived circa 600 .

The wider distributions of later types of Anglo-Saxon place-name remind us of the extent to which English influence ultimately became effective in Bernicia. Without doubt, many or most of the Celtic toponyms still in use in the sixth and seventh centuries will have been wiped out in the course of later settlement, both by substitution of Anglo-Saxon for native names and gradually, in the course of time, by actual movement from old farms and settlements to new. Consequently, it is well-nigh impossible to weave together the remaining threads of the toponymical pattern that existed while Ad Gefrin stood: the Celtic warp is now so much more decayed than the Anglo-Saxon weft. Only through chance, arising from their superior status, were we told that this royal centre and its successor, Maelmin, were known to the English by Celtic names. It would be almost miraculous if that chance happened to preserve the only two Celtic names then locally in use. The law of probability indicates that others must have been current at the same time; and since both survivals occur within the same area, there is a reasonable presumption that the district in question then still retained strong Celtic associations.

Obviously it is impossible to assess the actual extent and degree of the loss that has taken place since the seventh century. But even if we go to the other extreme, and accept what survives today at its face value, a faint image of the same ancient situation is still reflected. When we take, on the one hand, the group of Anglo-Saxon place-names that is agreed to represent the earliest true settlement of the English in this region (i.e., not earlier than the sixth or seventh century), we find that it is centred on the Coastal Zone. On the other hand, those Brittonic settlement-names which we know to have been in use in the sixth and seventh centuries are restricted to the Central Zone. Small though these distributions are, their mutual exclusiveness might even so be meaningful. Either way, whether we make allowance for the specially severe erosion of Celtic settlement-names or accept the surviving evidence as it stands, it looks as though the old native world of the Central Zone to some extent remained distinct, in the sixth century and even later, from the newer, germanizing world of the Coastal Zone.

One day, perhaps, the masters of place-namemanship will give us that detailed and comprehensive distribution-map of toponyms that will enable us to compare philological and archaeological occurrences on a topographical basis. Isaac Taylor showed the way in 1864: ${ }^{36}$ Hodgkin ${ }^{37}$ reproduced his map as the only available demonstration of the material, but the present writer refers to it for the sake of provocation rather than demonstration. It shows in the Tyne-Tweed region an archipelago of Celtic place-names, which, like the map of Iron-age monuments, resembles an eroded version of the distribution of Bronze-age antiquities. Isaac Taylor's blunders are obvious, but did he wholly miss the truth? Let us at least be shown (in some detail) the error of his ways, by means of a bigger and better production of the same kind.

The preceding paragraph is the merest diversion. Our real business is now with the more strictly archaeological evidences of the Anglo-Saxon adventure in the Celtic north. The
principal question is, of course, whether the material remains of 'pagan Saxondom' confirm or deny the inferences drawn from the surviving Anglo-Saxon place-names, with particular regard to their apparent segregation from a philological zone of Celtic persistence. This inquiry need not, however, detain us long; for the fact is that no early, unequivocally Anglo-Saxon remains are known in this region, north of the northern edge of the Tyne Valley (Fig. 5). Mr Hunter Blair aptly summed up the situation when he remarked that the whole body of Anglo-Saxon material from the Bernician region 'would be scarcely equivalent to the contents of six well-furnished graves from, for example, the Cambridge region';38 but, even so, the bulk of the objects he had in mind were found in the neighbourhood of the Tyne. Leeds, fifty years ago, thought the 'astounding lack of evidence for the early [Anglo-Saxon] settlement north of the Tees, which seemed to be demanded by the important part played by Bernicia from the first' was 'perhaps the most inexplicable point in early Anglo-Saxon archaeology'; ${ }^{39}$ and he renewed that comment in later years. ${ }^{40}$

Still, no authenticated piece of specifically early Anglo-Saxon metalwork from a grave, nor a single Anglo-Saxon cremation-urn is in evidence from the area between the north bank of the Tyne and the Tweed. A few brooches at Corbridge, Benwell and Whitehill mark the northern frontier of such indices in this region. The Anglo-Saxon claim for several groups of poorly furnished inhumation-graves in the lands to the north ${ }^{41}$ is a weak one, based almost entirely on the presence of iron knives and spears which could equally well be representative of the Celtic population. The cemetery at Howick (near the coast, about four miles from Alnmouth) is perhaps a better candidate than the rest, but even so it can show nothing more conclusive than a bead. ${ }^{42}$ Whether or not these cemeteries are in any sense 'Anglo-Saxon', the fact remains that Bernicia north of the Tyne Valley altogether lacks the common archaeological characteristics of all the other English kingdoms along the east coast.

That fact and its implications have been blinked too long. When we consider, for instance, the huge total of Bronze-age burials brought to knowledge in this region, it becomes impossible to believe that at least a few typically furnished Anglo-Saxon graves would not by now have been recognized in the same territory, did they exist there in such numbers as in the other English kingdoms. Accordingly we can no longer shelter behind the over-cautious belief that this state of affairs represents no more than a failure in discovery. After more than half-a-century of archaeological micawberism the daily expectation of something turning up has remained unfulfilled. It is high time, surely, that we acknowledged the Bernician void as a highly significant piece of negative evidence.

The matter has been made to appear astounding and inexplicable only by uncritical analogy with the course of events in other early English kingdoms. It has been assumed that Anglo-Saxon power in Bernicia was won by force of arms, and that its achievement necessarily involved immediate and extensive settlement by a considerable body of 'typical' pagan Anglo-Saxons. In Chapter 6 of this book it will be suggested that all the available evidence can be thought to point to a different conclusion.

Here it is sufficient merely to note that there is nothing to show that Bernicia was widely or deeply anglicized during the early days of the royal township of Yeavering. Place-names and history indicate that for some time the main focus of Anglo-Saxon interest lay in one part of the Coastal Zone; an area which is hypothetically likely to have had a relatively advanced culture even before the sixth century. By its very nature, the Coastal Zone was
bound ultimately to attract and foster all that was outward-looking and dynamic in the Bernician world. Offering its own rewards to the initiative of the more enterprising farmer, and doubtless to fishing communities also, it gave scope and economic basis for the growth of a new and more progressive society. Above all, it was in intimate touch with the coastal sea-routes, and was accessible to trade and external influences which would stimulate and diversify its culture. Its coast was, indeed, the sea-frontier of Bernicia; and its strategic importance, during and after the Roman occupation, must have set the pattern for the part it was to play thenceforward. That role may well have been one of cultural, as certainly it was of political, dominance from the sixth and seventh centuries onward.

All in all, it is not unreasonable to suspect that the first Anglo-Saxon rulers of Bernicia inherited a world composed of two somewhat distinct hemispheres. They were naturally preoccupied with the more congenial and promising Coastal Zone, which gave ready communication with the other more truly Anglo-Saxon world to the south. But there remained the older, Celtic world of the Central Zone: cloistered, held subject by a stronger and more primitive seasonal rhythm; relatively remote from and resistant to new influences - a haven for reaction, the last refuge for all that was archaic. The English were the lords of both hemispheres and had accordingly to solve a dualistic problem of administration. The natural solution was the institution of two seats of government: one in the Coastal Zone, at Bamburgh; the other in the Central Zone. In that situation, perhaps, lies the reason for the building of Ad Gefrin, and for its associations with the British past.

This survey has sketched the topographical background against which the problems arising from Bede's account of Ad Gefrin may be seen in local perspective. Bede's words and the survival of the place-name set the location of the township into such sharp focus as to give the curious patterns in Yeavering's growing crops, glimpsed from the air, the possibility of unusual importance. From the moment of their revelation it was clear that any excavator who ventured to disturb the remains from which they sprang might carry more than a merely archaeological burden. If the soil to be dissected, heaped into wheelbarrows and dumped had indeed once lain beneath the feet of Anglo-Saxon kings, it might contain the answers to historical questions which otherwise would be difficult or impossible to answer. Why did this Anglo-Saxon royal township have a Celtic name? When was it founded, and why in that particular place? What caused it to be chosen, in preference to Bamburgh, as the central point of Paulinus's Bernician mission? For what reason, and precisely when, was it abandoned in favour of Maelmin? Such were the historical problems that had to be transposed into archaeological terms. The rest of this book is concerned successively with the techniques that were brought to bear on them, with the evidence that was recovered, and with the interpretation of both the archaeological and historical data.

# CHAPTER TWO <br> EXCAVATIONS AT YEAVERING <br> 1953-62 

The excavation of every archaeological site demands, to a greater or lesser degree, some special development or combination of procedures and techniques. The methods used will - or should - represent a series of apt reactions to factors falling into four categories: the nature of the inquiries, the physical nature and condition of the remains, the general conditions prevailing on the site, and the resources of labour and time available. It is only in the context of these factors that the validity of the techniques and their results can be judged.

In the present case, there is particular need to preface the statement of results with some explanation of the techniques that produced them; and accordingly the determinant factors must first be noticed under the several heads to which reference has been made.

## (I) FAGTORS DETERMINING EXGAVATIONAL METHOD

## (a) The nature of the inquiries

The historical questions set out in the concluding section of Chapter I , above, were readily capable of translation into archaeological terms. They resolved themselves essentially into such problems of cultural identity, sequence, date and function as are amenable to archaeological inquiry. In the archaeology of the Highland Zone in Britain, however, the occurrence of small-finds significant of culture and date on settlement-sites is a matter for hope rather than expectation (and at Yeavering, indeed, such objects proved to be rare). But here were series of buildings that might themselves provide unusually reliable indices to most of the issues involved: elaborate and non-portable artifacts, not subject to the vicissitudes of trade, of which the date of manufacture and the date of deposition in the ground were one and the same. Each building should, with its associated detritus of human activity, reflect the need to which it was a direct response, and betray something of its function; and, in the aggregate, the structures of the settlement should represent various aspects of the cultural life of its people and possibly their antecedents. The corporate function of the township might indeed be discoverable.

These considerations placed a premium on recovery of structural detail and sequence, and imposed special problems of technique in the conditions which will be described below.

## (b) The physical nature of the remains and their context

The subsoil of the site was fine, sharp, glacial sand, with an intermittent and usually thin capping of residual gravel. Centuries of ploughing on the whaleback had brought about
some loss of topsoil from its crest, and corresponding redeposition round the lower boundaries of the modern field. As a result of this process, there was rarely more than a foot's depth of overburden over the areas investigated, and for the most part the ancient floor- and surfacelevels had been removed. It was found that variations in the 'background-tone' of the airphotographs corresponded consistently with the thickness of the overburden, the most denuded areas appearing lightest in tone (Plate 3).

Ridge-and-furrow cultivation had cut grooves, sometimes nearly a foot deep, into the subsoil. More recent ploughing had contributed its own share of damage and had left its characteristic mark on the already palimpsest subsoil (Plate 4).

The cropmarks proved, as had been suspected, exclusively to represent negative structures: foundation-trenches, post-holes, ditches and pits cut into the subsoil. With the exception of a large number of prehistoric cremation-pits, which need not be considered here, nearly all the features were filled with disturbed subsoil containing variously fractional amounts of humus. None of the foundation-trenches contained any vestige of building-stone or mortar, and various indications within the trench-fillings left no doubt but that the buildings of the township had been made entirely of wood.

When newly stripped of topsoil, the fillings of the foundation-trenches and post-holes were hardly distinguishable from the undisturbed yellow- to orange-brown subsoil, save where local occurrences within them of charcoal, burned or unburned daub, decayed animalbones, or large pebbles made them evident. The process of drying, which usually began immediately, briefly gave them definition; for the subsoil, devoid of humus, dried and lightened in tone more rapidly than the trench- and pit-fillings, in which humus was present. The revelation was indeed brief, in some places to be measured in minutes rather than halfhours, for its duration was in direct proportion to the humus fraction. Thus, those parts of an ancient trench which happened to be filled with material containing a minimal humus fraction dried-out and lost tone and colour almost as quickly as the subsoil, while other portions, richer in humus, might remain diffusely visible for some hours. The absolute terms of duration were set overall by the strength and dryness of the wind. During the few and brief moments of complete revelation, the trenches and pits were conspicuous as darker patterns, ranging in colour from light to dark brown, against a lighter, buff-coloured background (e.g. Plate 14; cf. Plate 17).

Once both subsoil and fillings were superficially dry, there was again little difference in tone between them (e.g. Plates $\mathrm{I}_{3}, \mathrm{I}_{4}, \mathrm{I}_{5}$ and $\mathrm{I}_{7}$ ). The subsoil retained a faint yellowish tinge, more pronounced in some places than others, and the fillings were in comparison slightly less yellow. The general distinction may best be made by calling the colour of the subsoil a very pale, greyish-yellow, and that of the fillings a pale yellowish-grey. In this dry condition, as in the uniformly moist conditions prevailing at the first moment of exposure and after rain, it was found to be particularly difficult to see the structural indications when only a small area had been laid bare. This observation applies in some degree to the great majority of composite negative structures encountered in excavations, and might be extended into a generalization to the effect that, within reasonable limits, the greater the area exposed the clearer the visibility of such indications becomes. Complexes of structural indications of this kind can be effectively resolved only as a whole, and there is need to isolate them within a broad frame of clean subsoil. In their horizontal aspect they are seen most clearly when
viewed from a moderate distance and from a high level; at close range the clarity of the contrasts in the tone and colour of the soil diminishes, and the eye is guided as much by the tenuous distributions of charcoal, daub and the like, and in those unnatural arrangements of pebbles which denote disturbances.

To the touch, however, as it operates through the agency of a trowel, there was at Yeavering a more readily perceptible difference between the disturbed and undisturbed sand. The virgin subsoil there is composed chiefly of sharp particles; whereas the constituent particles of the fillings (as was observed under the microscope) had among them a greater proportion which had been rounded off by incidental mechanical friction. Thus the subsoil had a slightly harsh 'bite' on the trowel; the fillings a minutely gentler reaction. The difference could often be demonstrated more effectively to the hearing than to the touch: the trowel gave out a subtly more vibrant note as it passed over undisturbed subsoil.

## (c) General conditions prevailing on the site

Persistent west to south-westerly winds, often strong and sometimes ferocious, rapidly dried the convex surface of this well-drained field, and created thereby a series of problems. Topsoil and exposed subsoil surfaces alike lost cohesion as they dried, and both were readily eroded by the wind. Redeposition of the fine, wind-blown material over the excavated surfaces often completely obscured the archaeological indications; and when rain followed, it so effectively puddled this deposit as to transform it into a scum that had to be scraped off over the whole of the exposed areas. The sides of foundation-trenches and post-holes from which the fillings had been wholly or partly removed were specially subject to erosion, which led to undermining and partial collapse; and redeposition in such excavated features was frequently severe. The deep, bowl-shaped sand-quarry, upwind of the areas excavated, created considerable air-turbulence, and was itself continually and heavily eroded. Wind-blown sand in great quantity rose at times to a height of 50 feet before being swept eastward to be redeposited over distances of up to 500 feet. ${ }^{43}$

A further difficulty was created by these conditions: for when areas stripped of their topsoil became desiccated it was impossible to set foot on them without producing deep footprints with broad, raised rims, which collapsed inward when vacated. This problem was partly overcome by the introduction of a pump and a great length of fireman's hose with a fine-spray nozzle, through which water from the stream at Old Yeavering could be diffused over the working areas. This expedient helped to stabilize the surfaces and made it possible for work to go on, but the duration and vertical extent of its effects were small in relation to the time and labour required to produce them. ${ }^{44}$

During the years in which the excavations took place the field which was their site was under plough, and usually sown with oats. Its owner, Mr J. Purvis of Yeavering Farm, had kindly agreed to the excavations being carried out, area by area, on condition that cropping of the field was not interrupted. Accordingly, in this region of late harvests, it was seldom possible for the annual season of excavation to begin before September. The one hypothetical advantage of this arrangement was that in autumn and winter the ground would be more regularly moistened by rain; but that was offset by the actual disadvantages of frequently excessive rainfall on the one hand, and of more constantly high winds on the other. Further,
the scale and complexity of the work to be done in each season were usually such that it could not be brought to completion until the following January or February; so that snow and severe frost added their own forms of damage and hindrance to the rest.
(d) The nature of the labour force

The circumstances described above increased the difficulty of obtaining and retaining labour. Limited funds did not in any case allow of a large paid force, ${ }^{45}$ but the local scarcity of labour was so acute that workmen had to be brought by van from Alnwick every day. These were building labourers by trade, totally unfamiliar with (and at first seldom sympathetic to) the aims and procedures of archaeological excavation. They had to be trained to observe and react predictably in these new and extremely trying circumstances; for such was the nature of the soil and the remains that the slightest misunderstanding of instructions could have brought about gross archaeological damage within the space of two or three minutes. ${ }^{46}$ Hence, real systematization of method was essential: complexities had to be reduced to their simple elements, so that all working on the site would share a common code of principles and standards.

It would be unfitting to pass to other matters without a word of gratitude to that small band of men who worked at Yeavering during several successive seasons. None of them young, they had often to endure extreme physical hardships; and it says much for them that under the lash of sand-laden winds they remained so loyal and dedicated.

## (II) THE PROGESSES OF EXCAVATION AND REGORD

## Stage i: Survey and Sampling: general approach to excavation

A contour-plan of the site was prepared before excavation began, and provided the basis for Fig. 12.

Cautious preliminary removals of the ploughsoil at a series of 'safe' sample points showed that in nearly all of the areas to be investigated it lay directly on the surface of the subsoil. In those cases there could be no archaeological virtue in retention of vertically complete strips or balks of undug topsoil over the remains; for above the subsoil, there remained no archaeological layers to be recorded in cross-section, and the preliminary contour-survey had sufficiently recorded the conformation of the modern surface. Further, the more any area was sub-divided by such balks, the greater would be the accumulation of wind-blown material within it; since the balks would directly determine the occasion of redeposition. ${ }^{47}$

Thus, more often than not, all the positive and negative requirements were satisfied by total, initial exposure of large areas, with as few dividing balks of ploughsoil as possible. Below the level of modern cultivation, however, considerable use was made of vertical as well as horizontal soil-sections, as will be described below (under stage 4).

## Stage 2: Selection, Loqation and Stripping of Areas

The limitation of funds, labour and time allowed the excavation only of those areas that contained features shown by the air-photographs. ${ }^{48}$ Once these had been located, an area
allowing a generous margin around the known features was set out with line and pegs. The depth of the ploughsoil was carefully determined at various points, and the bulk of it was then removed by straightforward digging with spades. A veil of disturbed soil was allowed to remain over the area, to be partially removed by delicate horizontal shaving with polished 'lady's spades'. When the tips of stones embedded in the uppermost archaeological levels could be felt and heard to rasp on the underside of the spade, exposure of the undisturbed surface was completed with trowels and brushes, this work proceeding methodically from one end of the area to the other.

## Stage 3: Study and Recording of the Primary Horizontal Segtion ${ }^{49}$

Stage 2 had consisted, essentially, of the preparation of a complete horizontal section, at the highest surviving level, of each structure or group of structures. This will be called here the primary horizontal section, to distinguish it from secondary horizontal sections later exposed at lower levels.
(a) Study

The complex series of soil-patterns so exposed was subjected to prolonged observation in various conditions of light, humidity and reaction to weathering; for on this single plane several kinds of evidence were accessible in unique combination, viz:
(i) Major intersections of foundation-trenches, post-holes, graves and other negative features; demonstrating the sequence of the various structures which successively had occupied wholly or partly coincident sites.
(ii) The total surviving plan of each structure.
(iii) Generalized indications of the processes of construction, repair and demolition relating to individual structures.
(iv) The horizontal incidence, on the surface, of various possibly significant materials (e.g., burned and unburned daub; nails; charcoal; pottery; loom-weights and food-bones), which often indicated by their respective natures and distributions something of the composition and form of the structures, and of the activities those structures existed to serve.
(b) Drawn records

A series of rigid datum points was established with the greatest possible precision, ${ }^{50}$ and a master-plan of the primary horizontal section was prepared, at a scale of I:40. Measurements were taken at exceedingly close intervals along every outline of the negative features, because (since so much existed in terms of post- and stake-holes) even the smallest irregularities might prove to be significant. Most of the measurements were taken with two co-ordinate steel tapes; but three were used at wider intervals to check the accuracy of crucial points, and the use of optical surveying instruments provided other means of control. The plan itself was tested by reading off from it various cross-measurements which were then verified on the ground. A drawn scale round the margins of the master-plan, checked with one of the perfectly matched steel tapes, ensured a correct relationship between actual and drawn scale and made any subsequent stretching or shrinkage of the material on which the plan was drawn precisely determinable in both dimensions. ${ }^{51}$ A tabulated record, in figures, was kept of all important measurements.

The distributions of the possibly significant materials exemplified in (iv), above, were then plotted on overlays traced from the master-plan. Separate overlays recorded cumulative observations of the structural indications as seen under widely differing conditions.

Details of significantly complicated features were drawn additionally at larger scales (i.e., smaller representative fractions).

## (c) Photographic records

Two forms of photographic record of the primary horizontal section were required: comprehensive general views, and details at close range. The former was a matter of particular difficulty. The indications were more fully resolved when seen from a moderate distance; but the degree of removal which was needed to give a complete view of the larger areas produced, from ground-level, such severe foreshortening as to make effective photographic demonstration impossible. Accordingly, towers were built as vantage-points for observation and general photographic record of each season's work. Plate 13 shows the largest of these towers, which was constructed to give command of the most extensive and complicated areas. ${ }^{52}$ Its purpose and size - its effective height was 40 feet - dictated that it should remain continuously in one position. Two lower towers which could be moved from one area to another, by two and four men respectively, were built at the same time (the smaller of these is visible in Plate 50).

The extreme subtlety of the soil-patterns at Yeavering in normal circumstances has been referred to above (p. i4). They were unusually difficultsubjects for photography, even from the favourable vantage-point offered by the tower, and some additional commenton the plates may, be of interest. Every attempt to achieve a general record had to be preceded by scrupulous cleaning ${ }^{53}$ of the whole area involved. In the case of the central complex (Area A, Fig. 12). a week was spent in the effort to secure a photograph of the complete horizontal section, Plate 14 shows its almost utterly blank appearance in normal conditions (even though this photograph was taken after the whole area had been swept free of every particle of dust). The results of subsequent slight rain, and of a long vigil on the tower, are seen in Plate i5 which was taken at the precise moment of clearest definition. After a further interval, there was heavier rain overnight, ceasing before dawn. Then came a drying wind. Photographs were taken from the tower at roughly 30 -minute intervals from 7.30 am onward, and the best of these, taken at 1.30 pm , is the subject of Plate 17 . Comparison of Plates 14 and 17 particularly, provides a sufficient commentary on the likely fate of such remains on sandy sites, when they are exposed but partially and incidentally in the course of commercial excavations (and indeed of archaeological excavations focused on more solid forms of structure). Only total exposure, of some duration, will allow the full observation and record of structures of this kind. Moreover, with a little dust and trampling they can quickly become invisible, even on sites where the subsoil and the structural indications are more obviously contrasted.

In the first attempts to photograph the structural indications in the same area, it was artificially sprayed with an extremely large quantity of water; but the rate of drying was so rapid that only one small part of the whole could be revealed at any given time by this means (Plate I6). While spraying of a very small area will allow details to be photographed satisfactorily, nothing can compare in any case with the effects of natural rain followed by
wind. Artificial spraying, to be legitimately effective, must be uniform and simultaneous over the whole area to be recorded, so that natural drying can be the true means of revelation. Particular, selective spraying of the structural indications only - or, for that matter, exclusively of the subsoil - is no more objective or unprejudiced a record than a schematic drawn plan. No other use was made of that technique in the photography of Yeavering, and the writer feels that such dubious expedients should be avoided wherever possible.

It should be added here that prolonged weathering was occasionally found at Yeavering, as on many other sites, to operate in favour of the photographic record. Differential erosion and frost, separately or in combination, frequently brought particular features with a high humic content into tonal or physical relief. In this type of excavation, particularly, it seems desirable (if there is the choice between a small labour force and a long season, on the one hand, or a massive short-term attack on the other) that the site should be exposed to weather and observation for as long as is reasonably possible.

## Stage 4: Dissegtion of the Negative Structures

This phase of the investigation was required to provide the following exposures and their corresponding records:
(a) Complete secondary horizontal sections, at various levels, of each and every structure (notably, of course, the trench-fillings).
(b) Representative longitudinal sections of the trench-fillings, vertically complete.
(c) Complete, transverse, vertical sections at all critical points of structural intersection; and at those points where indications of the timberwork, and of the processes of construction, repair and demolition relating to it, could most effectively be examined.
To have made immediate vertical attack on the problems of sequence, by cutting complete transverse sections through the trench-fillings (as is often legitimately done in the investigation of buildings of known constructional type), would have been to frustrate the special aims of this inquiry. Instead, it was decided that the elegant vertical proofs of the horizontally observed intersections should be allowed to emerge gradually, by a methodical process of elimination now to be described.

Appropriate lines of section were laid out at every critical point of structural intersection, with bricklayer's line and long pins of tempered steel. Secondary, sometimes arbitrary lines, usually parallel to and about 3 feet distant from the first, were then set out in the same way; so that the blocks of trench-filling to be reserved were defined. Often the proximity of two required lines of section left no need for arbitrary, additional definition, and reservation of the single block between them served both purposes.

The compartments of trench-filling between the various reserved balks were then dissected. Usually a median line was set out, to bisect the trench longitudinally (as nearly as could be estimated, along the wall-line), and one half-width strip was gradually shaved down until significant changes in the soil-pattern were observed. When the partial longitudinal section then visible had been drawn and photographed, the other half of the strip was shaved down to the same level as the first; so that the full width of the trench-filling was thereby exposed in secondary horizontal section, which in turn was recorded.

By methodical repetitions of this process, a composite longitudinal section was built up (e.g., Fig. II). Distributions of artifacts and various materials were plotted throughout, in relation to both the horizontal and vertical exposures.

When it became apparent that the bottom of the trench had almost been reached, the entire exposed area was treated as a single horizontal section and was delicately skimmed down with trowel and brush, in order that the basal indications of wall-timbers might be detected and recorded. It was found possible, as had been hoped, to isolate impressions that had been made by individual wall-timbers on the soft beds of most of the trenches. This was achieved mainly by successive use of brushes of different grades. The shallow fillings of the basal timber-impressions were often but minutely different in tone and texture from the sandy subsoil, and were usually obscured by the slightest powdering of dust; but with the application of a brush made of the finest hair obtainable their emergence resembled the development of an image on a photographic plate. (The constructional significance of these indications will be demonstrated in the following section.)

When all the parts of the wall-trenches chosen for early excavation had been completely investigated and lay empty of disturbed soil, the complete transverse vertical sections then displayed by the reserved balks were drawn and photographed; whereafter they were allowed to stand for as long as possible, so that they could be observed and re-photographed in diverse conditions. The effects of weathering, and of differential erosion in particular, tested and amplified the original interpretation of these crucial sections.

Finally, the balks of trench-filling hitherto reserved were themselves dissected. In some cases the complete transverse section was cut back in successive 3 -inch stages, yielding confirmation of important structural details.

The fillings of the isolated post-holes in each excavated area were then dissected and recorded in at least two planes. This operation was always held over until the investigation of the area was well advanced, when the excavators' experience of the types of soil and combinations of included materials associated with each structure and phase was at its height. Certain series of post-holes could thereby be distinguished and related to particular structures: soil and inclusions, dimensions and alignments, combined to allow of one series after another being, as it were, lifted out of the complex; leaving, in the end, at most a small residue of minor features unrelated to the general sequence.

This technique was simplified at a later stage. Had the writer to investigate further buildings on the same site, he would reserve the vertical transverse sections as before, at crucial points of intersection and at optimum points for display of the vertical characteristics of each foundation-trench; but he would now dispense with most of the longitudinal sections and work more directly in terms of successive horizontal sections. The longitudinal sections were at first of vital importance in the analysis, not only of these particular structural remains but of general matters of soil mechanics which are seldom considered or expounded; but they could be exposed only in deep, narrow slits, which gave no satisfactory viewpoint for photography and made the production of drawn records very slow and difficult. This simplification, therefore, adds to speed and detracts relatively little from the comprehensiveness of record, once the fundamental principle of the structure in question has been established.

The methods of dissection used in the excavation of the 'eastern cemetery' in Area B were
necessarily more complicated, both horizontally and in depth. Their relevance to the general problems involved in the excavation of graves and cemeteries will be discussed in a later publication.

## (III) DIAGNOSIS BY SOIL-DISSEGTION

In order to allow the descriptions of the excavated structures (Chapter 3, Section I, p. 46 below) to proceed without undue repetitions, the present section will summarize the diagnostic features on which certain conclusions, concerning the nature and history of the major trench-built structures, were based. The schematic diagrams in Figs. 8, 9 and io illustrate the main principles involved; while the plates and other figures to which reference is made show various relevant instances.
(a) Evidence showing that buildings were of wood: characteristically with continuous walls made of squared, vertical timbers (Fig. 8), probably joined with vertical slots and chamfered tongues (Fig. 9) and with inclined external buttresses.
The filling of each foundation-trench was found to be, from a certain level, bisected medially by a continuous vertical anomaly, here called the wall-line (Plates 19, 24, 65). The continuity of the former wall was further demonstrated by the differences between the fillings on either side of the wall-line (Plate 66). That the walls were made of vertical wooden posts was shown by various indications within the wall-line, but most forcibly by the discrete impressions left by their individual members in the bottom levels of the trenches (Plates 27 and IO2), which also proved that ground-sills were not used. Iron nails (Fig. 91), and burned daub bearing the impress of squared timbers (Fig. 93) were found in some cases, but there was a total absence of building-stone and mortar. In one building, excavated during the final season, fallen wall-timbers survived as balks of charcoal (Plates $56-58$ ) and provided independent confirmation of the use of squared timbers, which elsewhere had been diagnosed by the means described above.

Where later disturbances were at their minimum, the discrete basal post-impressions could be seen in certain cases to give way abruptly at a higher level to a continuously and precisely defined wall-line of the same thickness, with the original packing-soil remaining intact on both sides. It was evident that at this level the posts represented by the basal impressions were unified by the addition of intermediate timbers of the same thickness. Since there was every sign of cohesion and uniformity, and certainly no trace of a longitudinal batten or tie along either side of the wall-line at any surviving level, this evidence implies that the deeper posts were slotted down their narrower sides to receive chamfers or tongues (probably the former) on the corresponding edges of the intermediate timbers, so that the lower ends of the slots held the intermediate securely at the required level.

Diagnosis of posts structurally inclined from the vertical usually rests on study of the effects produced by their collapse or deliberate removal, which are considered in (c) below. Nevertheless, several fundamental characteristics may appropriately be defined under the present heading.

Below ground, all that is required for the institution of the type of wooden prop or buttress here in question is merely a secure lodgement for the thrusting end of the timber.

The greater the thrust-loading, and the more extreme the inclination from the vertical, the more is strength of resistance required at the seating-point - so that, in this particular context, the deeper the lodgement-pit must be, and consequently the more extensive in its surface area. Whereas the setting up of a vertical post ideally requires a narrow, cylindrical


Fig. 8. Diagram showing soil-features indicative of construction and demolition of timber buildings, as observed at Yeavering. A: impression of wall-timber on trench floor. B-C: transition to continuous wallline of same width. D: demolition-trough. E: original packing-soil. F: external buttress-pit.
socket, the lodging of an inclined buttress calls for a pit of far less exacting form. Some generosity of breadth may even be desirable, to give play for positional adjustment of the post: the one essential need is for a more or less sheer, cliff-like face at the point where the end of the post exerts its outward and downward pressure. Hence, the typical buttress-pit will be more bowl-shaped than a normal post-hole, and the side furthest from the wall it


Fig. 9. Diagram demonstrating interpretation of soil-features indicative of characteristic wall-construction at Yeavering. Upper half of nearer side of foundation-trench cut away for purposes of demonstration. The chamfered form of the timber member shown as (a) was present among the charcoal balks on the floor of Building Cr.
serves will usually be the steepest. Often, for obvious reasons, the side adjacent to the wall will present a longer, more gradual slope, and not infrequently any bridge of subsoil intervening between pit and wall-foundation will have been broken down to some extent. Thus, the morphology of the empty pits can be a useful guide when distinction has to be made between series of vertical and inclined settings; and on that basis alone Yeavering's distinctive building technique could be shown to have leant more and more heavily, from phase to phase, on the development of increasingly large external buttresses inclined towards the wall-plate.

Rarely, if ever, can an inclined buttress-post remain in situ to rot, after the structure to which its upper end was attached has collapsed or been pulled down. If of any considerable length it will tend to fall forward under its own weight: since it was never intended to stand independently, the packing-soil and stones over its embedded foot are unlikely to be heavy enough (or, at Yeavering, sufficiently stable) to form an immovable counterbalance. If it falls, there will be increasingly deep and severe disturbance of the packing-soil towards the lower, outer end of the post; but there may yet remain the impress of its sloping underside on the packing-soil that remains intact. This phenomenon was observed in two of Building A4's buttress-pits, exposed in the one instance by careful measurement of the resultant anomaly in series of successively deeper horizontal sections, and in the other by a vertical section at right-angles to the wall of the building.

Fortunately the thrust of the post on Yeavering's sandy subsoil had left in nearly every case a well-defined impression of the post's (usually more or less oblique) end-section, around which there was more often than not a cluster of disturbed packing-stones. Occasionally, as in the sockets of the great posts that propped up the back of Building $E$, the packingstones would remain sufficiently undisturbed to indicate, within rough limits, both the thickness and the leaning stance of the lodged timber. In all but the two instances of spontaneous or induced collapse to which reference has been made, the fillings of the buttress-pits showed a pattern of disturbance which the next section will show to be characteristically produced by the deliberate uprooting of inclined posts.
(b) Evidence indicating systematic demolition of buildings and implying the use of block-and-tackle (Fig. Io $a$ and $b$, and Fig. I I).
Systematic demolition was usually evidenced by a continuous, longitudinal trough, disrupting the upper part of the wall-line and the stratification of its packing-soil (Plates 28 and 38). That the trough was instrumental in the removal of wall-timbers is shown by the fact that in all cases its lines of silting ran directly into the sockets left vacant by those removals (e.g., Fig. I8 ( $\mathrm{A}_{4}$ ), and Plates 40,80 and 81). The stratification of the materials refilling the trough took place uniformly across its width, having met with no obstruction. The absence of a vertical medial anomaly from the trough is the critical feature distinguishing demolition pure and simple from demolition followed by rebuilding (see (d), below). Horizontal continuity of the trough distinguished total demolition from mere local repair, which was evidenced by discrete pits with vertical anomalies representing new timbers.

Minute examination of the filling of each trough showed that the first step in the demolition of a building had usually been the removal of one or more corner-posts. That had enabled each successive wall-timber to be exposed in turn, by clearance of the soil to a


Fig. io. Diagrams showing diagnostic distribution of burnt material in buildings (a) demolished and (b) demolished and rebuilt after destruction by fire. 1 : original timber-socket. 2: original packing-soil. 3: soil with included burnt materials refilling demolition-trough and top of surviving timber-socket. 4: secondary timbersocket, free of burnt debris. 5: secondary packing-soil, containing burnt materials from destruction of the original building.
convenient depth around it (the worker standing on the lower level provided by the initial excavation, and facing along the wall towards the central door). That the demolition-trough was thus formed piecemeal, as a gradual extension of the pit at the corner-post, was shown by series of thin, trampled layers superimposed on its floor (often more readily perceptible tactually in horizontal section than visually in vertical transverse section, but occasionally (as in Fig. I I) plainly exposed in longitudinal cross-section where burnt debris was included).

The demolition-trough was characteristically a shallow feature, relative to the original wall-trench, and never extended to the bottoms of the wall-timbers. In one case (Building $\mathrm{C}_{3}$, q.v., Chapter 3, p. 91, and Plate 65), there was no surviving trace of a demolitiontrough; but that this structure had been completely dismantled is shown by the fact that all the timber-sockets were filled with silted and derived material (including large stones and pieces of burned daub which were in many instances as wide as the former timbers had been) quite distinct from the fine, homogeneous replacement-soil which indicates that timbers have rotted in situ.

Had the timbers successively been levered out of the vertical before or during removal, one side or end of each post-impression on the floor of the wall-trench must inevitably have been deepened and the greater part of the whole distorted; whereas most of the basal impressions were in fact truly horizontal, and the sockets above them had parallel, vertical sides. Hence it appears that in the course of their extraction the timbers were lifted perpendicularly (Fig. I I). Since many of the timbers - mainly of oak - must have weighed several hundredweights apiece and were deeply founded, the use of some kind of mechanical lifting-gear (presumably involving block-and-tackle) is implied. ${ }^{54}$ Accordingly the demolitiontrough may have been made to expose joints below ground-level; but it would, in any case,
have eased the resistance that had to be overcome, and would have facilitated the securing of a rope or sling at a suitably low level, while at the same time allowing each timber to stand securely. The hazard involved in the free fall of such heavy balks from the vertical must have been familiar to the demolition-gang (who were doubtless experienced builders also).


Fig. Ir. Diagrammatic view of longitudinal, vertical section of mature 'Yeavering-style' foundation-trench, demonstrating the sequence in which wall-timbers were extracted during the building's demolition. Here the work of removal is seen to proceed from left to right, beginning with the pulling of a door-post from its pit (bottom left). In various instances, demolition from the corner-posts inwards appears to have gone on at the same time. This illustration is based on the composite long-section of the E. half of Building A4's N. wall, but is representative of all the demolished structures based in trenches.
(c) Withdrawal of inclined posts serving as buttresses or props (those of Buildings $\mathrm{A}_{4}$ and $\mathrm{D}_{2}(\mathrm{~b})$, Figs. I6 and 20, are particularly good examples) was indicated by characteristic disturbances of the soil, different in form from those occasioned by extraction of vertical posts and usually far greater in degree. The evidences representative of various procedures of removal may be summarized as follows:
(i) Post pulled upright, away from wall, presumably with rope or ropes attached to newly disconnected upper end of buttress. The effects of this preliminary move could be observed only where the seating of the earthfast end of the post had remained secure, allowing the timber to stand upright and to be withdrawn more or less vertically. The disturbance of the packing-soil left, in this case, an anomaly that was shaped in plan like a truncated wedge (or, where the post had been turned round its axis while being lifted out, like a keyhole) at right angles to the wall-line and widening out from it. Sectioned along the line of movement, the anomaly was seen to caricature the profile of the typical buttress-pit form (see (a) above) in the slope of its inner side and the relative sheerness of its outer side. Five very clear instances of this procedure were observed in the buttress-pits of Building A4, and it would appear generally to have been the normal method; which implies that the upper ends of most of the buttresses were fastened to the walls in such a way that each in turn could readily be disconnected and removed before the section of wall it served was dismantled.

In a great many instances the disturbance of the packing-soil was more extensive, obscuring all but the distorted impression of the timber-end on the bottom of the pit, and here it would seem that intractable timbers had variously been skewed round in their sockets (stirring the packing-soil like a pudding) or partly dug out. In eight cases (seven of which occurred in Building A2) buttress-pits with their outer sides abnormally broken down proved to have basal timber-impressions that were abnormally long, deep and irregular. Most of these were remarkable, too, for the small size and number of their packing-stones; and altogether it appeared that the seating of their timbers had not been sufficiently firm to prevent the foot of the post from moving inwards as the top was pulled outwards - allowing the outer edge of the pit to act at a fulcrum while the post was pulled up to and beyond the perpendicular. Consequently the top of the post had fallen outwards, partly under its own weight, and the reflex leverage exerted by its foot had caused a destructive upheaval of the packing-soil. This could happen only where the buttress-post remained substantially intact, hence the relatively high incidence of this phenomenon in $\mathrm{A}_{2}$, the only major building whose demolition was not occasioned by a fire. Significantly, the exceptional instance in A4 occurred close to the S.W. (downwind) corner.
(ii) Foot of post pulled upwards towards horizontal, while top still attached to wall. This procedure could explain an effect which was confined to the pairs of buttress-pits flanking Building A2's long-wall doorways (the pit to the west of the north doorway is the most dubious instance of the four). The pattern of disturbance was closely similar to that postulated in (a) above to be the result of an inclined post's free forward fall, save that here a small, sharply defined pit appeared to have been dug deliberately to expose the earthfast end of the post, and the breaching of the pit's outer side seemed more likely to be purposeful than accidental. If this interpretation is sound, it shows the four particular buttresses in question to have been at least more strongly secured to the wall than the rest; and it is not unreasonable to consider the possibility that they passed over or through the wall to make direct connexion with some part of the roof structure.

Obviously (i) represents the normal technique for removal of the external wall-buttresses characteristic of Yeavering's major buildings. A minor effect associated with the vertical extraction of Building $\mathrm{D}_{2}(\mathrm{~b})$ 's formerly inclined buttresses is described in note 65 (p. 98).
(d) Evidence of rebuilding after demolition of original structure (Fig. 1о, B), disregarding distribution of burned material.
Truncation of the upper parts of the original wall-line and packing-soil was in evidence, as in (b) above; but the trampled floor of the demolition-trough had usually been trimmed or
cut away to give a suitably regular, flat surface for the reception of new timbers. The filling of this re-cut feature did not, as in (b), flow evenly over the line of the earlier wall; but was itself bisected medially by a vertical anomaly representing the new wall-line (as in (a), above) (e.g., Fig. 18: re-cut trench, representing Building $\mathrm{A}_{3}(\mathrm{~b})$, in trench-filling of $\mathrm{A}_{3}(\mathrm{a})$ ). Here again, basal timber-impressions and the other relevant indications described could usually be recovered.
(e) Evidence showing that a particular structure was damaged or destroyed by fire before demolition (Fig. IO, a).
The general evidence was as in (b), above. The critical, additional feature was the significantly localized presence of burned debris. The most truly diagnostic material was daub showing impressions of squared timbers and/or wattlework, baked hard or at least strongly reddened by fire (Fig. 93); but the evidence of dense and extensive linear concentrations of charcoal, charcoal-blackened soil and fire-crackled pebbles also was found to be a reliable guide, especially when accompanied by reddening of the soil in situ. The critical requirement in this diagnosis is that these burned materials should occur exclusively in the sockets of the former timbers (usually densely) and in the filling of the demolition-trough (in general admixture, but often especially evident on its trampled floor). At Yeavering, relatively large, sharply fractured fragments of daub and charcoal were of more frequent occurrence in the timber-sockets than in the demolition-trough.
(f) Evidence characteristic of later constructions in wall-trenches of earlier buildings destroyed by fire (Fig. 10, b).
This differs significantly from the evidence in (e), above, in that the burned material was distributed (usually in smaller, more worn fragments) throughout the packing-soil of the re-cut trench. Unless the secondary building was itself later burned down (when the evidence under (e) would again be present), its actual wall-line will be characterized by the absence of burned debris.
(g) Evidence indicative of wind-direction during destruction of wooden building by fire.

It was observed that in the remains of all the rectangular buildings destroyed or damaged by fire at Yeavering the effects of heat were invariably more intense at one or other end of the building. In this respect the burned structures fell, indeed, into two distinct categories: in one series the most pronounced effects occurred towards the N.E. quarter, and in the other it was the diagonally opposite, S.W., quarter that was most severely affected. As such effects must be indicative of the course taken by the fire, which will have been set by the bearing of the wind at the time, both the wind-direction and the fire's point of origin should be discoverable.

In all but a few small areas at Yeavering recent ploughing had removed the original ground surface; but the process of structural demolition had allowed large samples of the overlying debris to fall into the sockets of newly withdrawn timbers. Hence, although some degree of displacement and admixture must have blurred its outlines, a broadly revealing pattern emerged from the distribution of the burnt materials within the foundation-trenches and post-holes of the buildings in question. The end of general demonstration will be best
served by particular reference to Building $\mathrm{D}_{2}$, in which the relevant evidence was so abundant and clear (Fig. 44) as to permit critical study of the diagnostic features and problems. There, the essential points were found to be as follows:
(I) GEneral horizontal distribution

While burnt materials were present in all the demolition-holes, they were most grossly abundant along the east wall, particularly towards its northern end. Strikingly less plentiful in the south and west walls, and in the western half of the north wall, they were minimal around the S.W. corner. Analysis of the general distribution showed the particular aspects considered below to be significant.
(2) Distribution of gharcoal

Charcoal was most densely plentiful in the sockets of the eastern roof-posts. In general its distribution was heavier in the east and north than in the west and south walls, and it was particularly sparse around the S.W. corner.
(3) Distribution of daub-fragments

As is shown in Figs. 44 and 45, this was not altogether dissimilar, in the general balance of its pattern, from the distribution of charcoal. Its special significance will appear from the analysis below.
(4) Size and condition of daub-fragments

Overall, a clear progression could be traced, from small and very lightly baked fragments around the S.W. corner to vitrified masses near the N.E. corner. In this respect the evidence of the east wall was particulary, striking. Near its southern end, the daub occurred in small pieces, soft and fudgy, rarely with more than a thin heat-hardened, yellow-orange crust. Northwards the material occurred in steadily larger and more thoroughly baked fragments. By the south side of the east doorway it had attained a consistently cement-like hardness which preserved some impressions of posts and stakes, and showed yellowish-grey outer surfaces merging into a chrome-orange core. North of the east door it passed rapidly from lumps that had bubbled and vitrified superficially to large metamorphosed masses that had fused, frothed and oozed before collapsing conglomerately.
(5) distribution of sGorghed stones and soil-surfages

These distributions speak on the one hand of ground exposed to the collapse of burning timbers, and on the other of that rare wind-driven extremity that will allow one or two posts to burn down into the first few inches of their sockets. These indices, too, were most concentrated towards the N.E. corner of the building. Reddening of the subsoil surface was most plainly apparent in the northernmost section of the balk between the inner and outer trenches of the east and north walls, and especially on their eastern faces.

The forms of evidence noticed under (4) and (5) are obviously the most direct and reliable, and they indicate that the heat, duration and destructiveness of the fire increased steadily from west to east and from north to south. The other distributions consistently support the inference that the blaze was fanned and driven by a south-westerly wind. Since fiercely burning wood fully exposed to the air will normally be reduced to a blowing white ash, the distribution of charcoal will be roughly indicative of the areas in which structural collapse has produced the smothering conditions required for long, slow burning. In this particular instance, the evidence suggests that at least the northern half of the roof collapsed (probably eastwards).

Experimental burnings of rough wooden models, and consultation with modern fireinvestigators, confirm this interpretation; and there can be little or no doubt that D2 was fired from its S.W., upwind, corner. The way in which the pattern of destruction expands and intensifies as it draws away from that least devastated corner implies that, as might be expected, it was the inflammable thatch or shingling of the roof that was touched off first,
at the gable end. Thus, the first flames will have been driven along the roof, above and away from the south and west walls, their mounting heat giving them at last a hold on the structural roof-members towards the middle of the building. The box-like northern end of the building will then have become virtually a kiln raised to an extremely high temperature by the forced draught of the wind. Later, its roof timbers will burn through and collapse eastward, converting it into a smother-kiln productive of charcoal. Thereafter the remains of the west wall will be more directly exposed to the wind than those of the east, and so such material as still burns on the western side will be reduced more completely to white ash. In the end, when the inferno has burnt itself out and the ashes are cold, the demolition-gang will find the part of the building nearest the fire's point of origin remaining the least damaged; and, as the wind has blown most of the falling debris away from it, that area will carry relatively little burnt material to intrude into the timber-sockets when the stumps are drawn.

Building $\mathrm{D}_{2}$, the particular subject of this general demonstration, is representative of one of the two series of buildings mentioned at the outset. $\mathrm{Dr}_{1}, \mathrm{D}_{3}, \mathrm{D}_{4}(\mathrm{a}), \mathrm{D}_{5}, \mathrm{E}, \mathrm{Ar}_{\mathrm{I}}(\mathrm{a}), \mathrm{A}_{4}$ and their associated structures were all destroyed in precisely similar circumstances: rebuilding had in two cases disturbed the evidence, but even there the same broad pattern emerged from the distribution of scorched surfaces and of burnt materials in the newly redeposited packing-soil - all had been fired from the S.W. corner while a south-westerly wind was blowing. The form of the damage to Building E will later be shown to be more directly indicative of foul play; and the burning of a later series of buildings ( $\mathrm{D}_{4}(\mathrm{~b}), \mathrm{Ci}_{\mathrm{I}}, \mathrm{C}_{4}, \mathrm{Ar}_{\mathrm{I}}(\mathrm{b})$, $\mathrm{A}_{3}$ and, less certainly, B) from the N.E. corners in a north-easterly wind still further supports the general conclusion that what is represented here is the result of a simple but wellcalculated technique of deliberate destruction.

## GHAPTER THREE

## THE EXCAVATED STRUCTURES

## (I) GENERAL DESGRIPTION OF STRUGTURES AND OGGURRENCES OF ARTIFAGTS

Here the general characteristics of each building will be described as briefly as possible, together with the evidence of relative sequence provided by intersections and by the composition of the soil filling the various negative features. For this purpose the structures are dealt with in groups corresponding with the main areas indicated in Fig. 12, in alphabetical order. The relevant plates are arranged in approximately the same sequence, area by area; and, accordingly, special reference to them here is restricted to the demonstration of particular points.

It will be evident that the capital letters and numbers by which the structures are identified are merely instruments of reference, and that they carry no general implications of actual sequence. The prefixed capital letter in each case indicates the area within which the relevant structural group is to be found on the general plan in Fig. 12; and the following number is solely a key to the identity of the particular structure within that group. The two together form an index to the relevant passage of description in the present section, and to the corresponding group of plates. Designation by a letter or letters without a suffixed number (e.g., Building $E$, Building $B C$ ) indicates that there was but the one building in the relevant area.

Where a lower-case letter in brackets is suffixed to the key-number, it refers to one of two or more structural phases through which the particular building indicated was found to have passed. Thus, $A_{I}(a)$ identifies the earliest of three successive structures, of which $A_{I}(c)$ was the latest.

The significant small finds associated with each structure will merely be noted in the course of this general description. A full catalogue raisonnée is given in Chapter 4 (pp. 170-200, Figs. 80-94). For convenience, the loom-weights found have been numbered from $\mathrm{Lr}_{1}$ to $\mathrm{L}_{4}$; the two pieces of gold are called $\mathrm{Gr}_{1}$ and $\mathrm{G}_{2}$; and the objects of glass are identified as $\mathrm{Gli}_{1}-4$.

The ancient field-boundaries that are seen from the air in Plates 3 and 4, and are the subject of the plan in Fig. 73, were found uniformly to be shallow, diffuse gullies with fillings of loamy sand, invariably interrupted at every point of contact with the structures which are now to be described; and accordingly further reference to them will be omitted from this section.

## Area A: The Central Complex (Plates i4-4I inclusive)

This group of structures will be demonstrated from west to east in relation to the plan given in three consecutive sections in Figs. I3, I5 and I7 (Figs. 22, 23 and 24 show the corresponding

Fig. 13. Area A. Primary horizontal section, Area A, showing Buildings AI (a), (b) and (c), part of Building A2, and Palisades I, 2 and 3. Dotted lines represent earlier field-boundaries. Hyphenated lines denote 'recent' plough-lines.


Fig. i4. Area A. Characteristic vertical sections of Building Ar (shown at double the scale of the drawings that immediately follow). (I) AI (a), (b) and (c), N. wall, W. of N. door. (2) AI (a), (b) and (c), S. wall, E. pit of S. door. (3) $\mathrm{Ar}_{\mathrm{I}}(\mathrm{b})$, W. annexe, S. wall. (4) AI (b), W. annexe, W. wall. (5) Ar (b), E. annexe, N. wall (at intersection with W. partition-wall of A2).
negative features; and Figs. 60, 6I and 62 isolate the timber structures of Buildings A2 and $\mathrm{A}_{4}$, demonstrating their metrological and axial relationships).
Building Ai (plan Fig. i3; representative sections, Fig. 14) proved to have passed through three distinct structural phases (Plate 19), of which the latest will be described first.
Building $A_{I}(c)$ was an aisled hall, with an annexe at its east end. There was a doorway in each wall of the main structure. Those in the north and south walls were opposed at the ends of the transverse axis and divided the long axis. The door in the east wall (giving access to the annexe) was placed almost symmetrically to the longitudinal axis; but the west door was set to one side, so that its southern jamb stood directly on the long axis.

This building was constructed in a relatively shallow, narrow and irregular trench, which was for the most part cut into the fillings of earlier trenches (Plates 19 and 21). Its separate identity was indicated not only by its departures from the lines of the earlier structures in all its lateral walls (Plates 16 and 22), which were dug into virgin soil, but also by the conspicuous blackness of the soil which had been tamped down around its timbers. Crushed fragments of charcoal and burned daub representative of the preceding building $\mathrm{A}_{\mathrm{I}}(\mathrm{b})$ were present throughout the trench-filling; but the hardness and size of the daubfragments increased steadily from N.E. to S.W., and vitrification occurred only around the S.W. corner. The former positions of vertical timbers, at an average separation of 5 feet, were indicated by pockets of fine, even, brown humus, which contained no burned daub or charcoal and extended deeper than the normal trench floor. Along the southern and western walls a pinkish suffusion, round the outside edges of the timbers, indicated that unburned daub had been washed down where $\operatorname{Ar}$ (c)'s exposure to weathering was most severe. Between the posts of these walls, the same pink material occurred variably along the wallline, which intermittently was marked also by a thin slot, $\mathrm{r} \frac{3}{4}$ to 2 inches wide, containing fine, dark-brown soil. The degree of definition of the slot was in direct proportion to the depth of the trench, and it was locally diffuse or invisible in the shallowest parts of the trench. ${ }^{55}$

It was thought at first that the timber-framed walls of this building had been panelled with wattle-and-daub; but the regularity of the wall-line between each pair of posts gave rise to doubt, which was strengthened by the discovery of five intact iron clinch-nails (e.g., Fig. 9I (I2-I5, I8 and 20)) - and concentrations of rust representing many more - at various points beside the walls. Accordingly, it seems that the panels were of clinker-built planking faced or caulked with daub.

AI (c) yielded no other small finds, and powdery traces of decayed bone along the inner sides of the south and east walls were the only index of occupation. Built after its predecessor had been destroyed by fire, it was itself left abandoned to rot in the ground.
Building $A_{I}(b)$ : an aisled hall, with its doors disposed similarly to those of $\mathrm{AI}_{\mathrm{I}}(\mathrm{a})$, this building had both an eastern and a western annexe. It was more robustly and precisely constructed than its successor, and its walls were composed entirely of squared vertical timbers.

The foundations of $\mathrm{Ar}(\mathrm{a})$ had been so slight that the lower parts of the foundationtrenches of $\operatorname{Ar}(\mathrm{b})$ survived intact (Plates 19 and 21). Their evidence confirmed that this building had been severely damaged by fire and, thereafter, demolished. The distribution of large pieces of charcoal and hard-baked daub in the sockets of its wall-timbers was markedly
less intense in the north and east walls of the eastern annexe and the N.E. corner of the western annexe, and was heaviest around the S.W. corner of the main chamber (where a few vitrified fragments occurred). Fig. 82 (7) is typical of the class of pottery represented by a small group of stratified sherds.

That $\operatorname{Ar}$ (b) had itself replaced an earlier structure which had been burned down, many small fragments of burned debris in its derived packing-soil demonstrated. From their distribution and condition it was evident that the N.E. quarter of $\mathrm{A}_{\mathrm{I}}(\mathrm{a})$ had burned longest and most fiercely. The relationship in depth between the foundation-trenches of $\mathrm{AI}_{\mathrm{I}}(\mathrm{b})$ and its predecessor varied; so that in some places post-impressions belonging to $\mathrm{Ar}(\mathrm{b})$ were clearly stamped upon virgin subsoil, and in others were difficult to see against a background of soil which had previously been disturbed. The western annexe, immune from later and (as will be seen) earlier disturbance, other than the simple process of its own demolition, produced the most clear and extensive indications of individual wall-timbers. Those of which reliable measurements could be made were uniformly rectangular, from $3 \frac{1}{2}$ to 4 inches thick and from II to I2 inches wide. They were spaced at intervals roughly conforming to their own width. The door-posts had been of larger section (about $16 \times 8$ inches) and set into deeper pits. Thresholds were marked by undisturbed causeways of subsoil.

The emplacements for a series of posts, set round the outside of the building, are visible in Plate 16. They represent one of the common characteristics of the majority of buildings on this site. In every case in which such diagnosis was possible, these external posts proved to have been inclined inwards to the wall.

Building $A_{I}(a)$, the earliest of the three successive buildings, was a plain, aisled hall, devoid of annexes. It was characterized by a greater massiveness of construction, with wall-timbers $5 \frac{1}{2}$ to 6 inches thick set in trenches varying from 36 to $4^{2}$ inches deep. Plate 20 shows the indications of closely set timbers at the highest surviving level of the trench-filling; and Plate 2I, the more widely spaced basal impressions. A doorway was set squarely in the middle of each wall. Each door-jamb and corner-post was housed in a deeper pit, and there was an intermission of the wall-trench at each doorway. External posts were again present.

Burned daub occurred (in small, often eroded, fragments) only within what remained of the sockets of the withdrawn timbers: it was apparently derived mainly from the inside of the building, and towards the N.E. corner there were many instances of partial vitrification. Seven featureless sherds of rough, hand-made pottery, of which the largest was about $\frac{3}{4}$ inch square, were found in various timber-sockets: one in each of the two westernmost roof-post sockets, one in the eastern jamb socket of the north door, two in the western half of the north wall, and two in the eastern half of the south wall. These sherds closely match the ware of the Class $I($ b $)$ pieces shown in Figs. 8r and 82, and do not differ in any significant respect from the material associated with $\mathrm{Ai}_{\mathrm{I}}(\mathrm{b})$.

At the east end of the building's interior were several post-holes which were distinguished from the rest by the absence of burned debris. The posts had been withdrawn from them, and the holes refilled with gravel and sand. These evidently belonged to the west end of Palisade I, which will be more fully considered when Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ are described. Here it is relevant to remark that these particular post-holes were evidently re-filled before Building $\operatorname{Ar}(\mathrm{a})$ was constructed, and that they all contained basal packing-stones. Whereas
all the post-holes of the palisade were packed with stones, none of the roof-post holes of the building was so characterized. It was observed that the only palisade-holes that contained considerable quantities of charcoal were those outside the building. From this it appears that the palisade was pre-existent, and that its west end was altered when $\operatorname{Ar}(\mathrm{a})$ was put up, to allow it to embrace the east end of the building. In its later, modified, form this palisade, which will be called henceforward Palisade 2, was evidently involved in the same fire that destroyed Building $\mathrm{AI}_{\mathrm{I}}(\mathrm{a})$.

Building A2 (plans, Figs. 15, 23 and 6o; representative sections, Fig. 16)
The foundation-trenches of $\operatorname{Ar}_{\mathrm{I}}(\mathrm{a})$ and its successors were cut, at their eastern extremities, into the west end of an earlier building (Plate 22): a great hall of massive construction (Plate 23). In plan, it was a simple rectangle, with a partition making a long, narrow antechamber at each end. There was a door in the middle of every wall. The west door was evidenced by the usual pair of deep post-pits; but between them the wall-line continued, suggesting that the actual doorway was an opening higher up in the wall (a somewhat similar provision is to be seen in Building $\mathrm{D}_{5}$ ).

The interior was thickly punctuated by series of post-holes, among which pairs of roofposts (Fig. 23) were identifiable by reference to their consistently greater depth and preponderantly greater diameter. There was, moreover, a difference between the fillings of the roof-post sockets and the others, in that gravel and rock-fragments occurred far more conspicuously in the former series than in the latter. Further, the bases of the roof-posts had all been trimmed flat, whereas most of the other posts had rounded or pointed ends. Finally, it appeared that the bases of the roof-posts had been slightly charred before they were put into the ground; for a minutely thin, grey-black film adhered to the impressions they had left on the floors of their sockets. This feature was present in none of the other internal postholes, although it appeared again in the door-post pits. Most of the remaining internal postholes appear to represent piles supporting a raised wooden floor, divided longitudinally by a passageway (Figs. 59 and 6o).

The trenches of the long walls were on average 3 feet deep ( 4 feet, from the modern surface), those of the end-walls as much as 6 inches deeper. Uniformly filled with clean sand and gravel, they were in some places barely distinguishable from the subsoil. Dissection of the fillings revealed that, at an early stage of construction, the trenches had been dug and the walls emplaced section by section. This process had begun at the long-wall doors and extended outwards to the corner-posts; whereas demolition later followed the reverse course. Diffuse indications of the wall-line were visible immediately below the demolition-trough (Plate 24). At a lower level the continuous wall-line gave way to a series of discrete indications (Plate 26). Basal impressions (Plate 27) showed the wall-timbers to have been $7 \frac{1}{2}$ to 8 inches thick and fractionally over II inches wide. All the door-posts had left precise impressions on the floors of the pits which had housed them, and in every case the evidence indicated that the timbers were 22 to $22 \frac{1}{4}$ inches wide by I I inches thick. External posts were set at regular intervals round the walls, frequently corresponding with posts that had apparently stood vertically against the inner faces of the walls.

Further consideration will be given to the constructional aspects of this building in sections III and IV of the present chapter.



What was at first taken to be a sub-rectangular hearth (visible in Plate 23), near the centre of the building, proved to be the base of a prehistoric burial-pit, heavily packed with stones, in which basal fragments of a 'secondary neolithic' pot remained. A second, smaller pit, close to the first and shown by crumbs of similar pottery to be roughly contemporary with it, lay to the west. Both pits had suffered extreme damage from the plough, and the absence of hearths in the buildings of the central complex is to be attributed to the same cause.

That A2 was lived in - or at least feasted in - was demonstrated by the presence of decayed bone in the sockets of the roof-posts. This survived mainly as a buff-coloured powder. In the eastern door-jamb socket of the south wall, however, it was possible to recognize the horn of a sheep or goat, and shells of enamel from the teeth of ox and boar were identified in the door-pits of the eastern and western partitions respectively.

Other, more diffuse, powdery concentrations were noticed in the sockets of the walltimbers, but were not understood for some time. They occurred only intermittently, but appeared to derive from both sides of the walls. They resembled the decayed food-bones in colour, ranging from off-white to an ochreous yellow, but were granular in texture. Their nature was explained when a large boulder was removed from the surface of the filling of the south-west corner-post pit; for underneath it lay a slab of white lime-plaster, which had a yellow undercoating. ${ }^{56}$ Here only had this material been sufficiently protected to survive intact.

Sherds of pottery were relatively few and small. All fell into the class represented by Fig. 82 (in which 4 shows the largest fragments recovered from $\mathrm{A}_{2}$ ).

In no part of this building was there the slightest sign of damage by fire. It had been systematically demolished, and the rare flecks of charcoal in the soil which replaced its withdrawn timbers (particularly the roof-posts) were merely sufficient to testify to the former presence of a domestic hearth.

It was otherwise with a high proportion of the post-holes of the palisades to north and south of A2. Here again two separate series could be distinguished: Palisade 2, every post-hole of which had a core discoloured by charcoal and burned daub; and Palisade 1 , which was shown to be the earlier by several intersections with holes of Palisade 2 and was characterized by clean, sandy fillings free of charcoal.

The west end of another palisaded enclosure, Palisade 3, appears at the east end of Building A2. In contradistinction to Palisades I and 2 it was trench-built. Deeper holes dug in the trench floor received its main uprights, which were split timbers of half-round section. Many replacements and additions of posts were evident; but originally the posts were staggered, set alternately to one side and the other of a thin, longitudinal slot, always with their flat sides presented to it. This palisade is clearly related to Building A2 by the behaviour of its western terminals, which curve inward, like a pair of callipers, to grip the eastern end of the building. Thus, Building A2 was made to serve as the west side of the enclosure. It will be seen in the following plan (Fig. 17) that Palisade 3 defines a large area, which is divided into two by a north-south partition with a gateway. Another entrance appears to have existed at its north-east corner, but to have been blocked subsequently. This palisade, like the building to which it was attached, had never been exposed to fire and was ultimately dismantled simply because, in a new phase of construction, it had ceased to be useful.


Fig. 16. Area A. Characteristic vertical sections of Buildings A2, AI and A3. (i) right, W. wall A2 midsection (at threshold of $\operatorname{Ar}(\mathrm{a})$, breached only by S. jamb-pit of $\mathrm{Ar}(\mathrm{b})$ 's E. door) : left, N. edge of $\mathrm{Ar}(\mathrm{c})$ 's corresponding door-pit. (2) A2, N. wall, W. jamb-pit. (3) Left, A2, N. wall, E. edge of E. jamb-pit: hyphenated line gives profile of jamb-pit as seen $30^{\prime \prime}$ to E. Right, buttress-pit of A2. (4) A2, W. partition-wall, N. jambpit. (5) A2 W. partition-wall beside doorway, showing also W. wall of A1 (b) E. annexe, left, and corresponding wall of $\mathrm{Ar}_{\mathrm{I}}$ (c). (6) A2, S. wall, 6 feet E. of S.W. corner. (7) A2, S. wall, io feet W. of W. edge of W. jamb-pit, with buttress-pit to S. (8) A2, S. wall, E. jamb-pit. (9) A2, E. partition, N. jamb-pit, showing intrusion of W. wall, W. annexe, A2. (io) A2, E. partition, invaded by W. wall of $\mathrm{A}_{3}(\mathrm{a})$ 's W. annexe. (II) A2, E. wall, S. jamb-pit.

Building A3 (plans, Figs. I7, 24, 68 and 69; representative sections, Figs. 16, 18 and 19), was of two distinct structural phases, in both of which its plan resembled that of the major building revealed by the Milfield cropmarks (Plate 7). The relationship between this building and those in Area C, demonstrated in Fig. 64, should be noted.

Building $\mathrm{A}_{3}(\mathrm{a})$ was in plan a larger and more elaborate version of $\mathrm{Al}_{\mathrm{I}}(\mathrm{b})$, and in the circumstances of its construction was the counterpart of $\mathrm{Ar}_{\mathrm{I}}(\mathrm{c})$. Finally replaced by a less deeply founded building (Plate 29), of similar plan, after patent destruction by fire, this great hall had been designed with considerable ingenuity so that the posts flanking the internal doors served also as roof-posts. Whereas in A2 (and as will be seen, in A4) the southern and northern rows of door-posts were uniformly aligned, longitudinally, the equivalent posts here were alternately transposed to north and south; so that the inner post in each case was set against the line of the building's long axis. This emphasis on the centre-line is indicative of a form of roof-construction which is possibly implied also by the offset enddoorways of Buildings $\mathrm{A}_{3}(\mathrm{a}), \mathrm{Ar}_{\mathrm{I}}(\mathrm{a})$ and (b), $\mathrm{B}, \mathrm{C}_{2}-4$, and $\mathrm{D}_{4}(\mathrm{~b})$. The constructional aspects of these buildings will be further considered in section III below (p. 124).

Building $A_{3}(b)$, built after the destruction of $\mathrm{A}_{3}(\mathrm{a})$ by fire, had evidently been left to decay in situ. The traces of its timber walls were in general somewhat diffuse, because the trenches were extraordinarily shallow, existing almost wholly within the zone of greatest earthworm activity near the surface. The uniformly extreme darkness of the trench-fillings made their elucidation still more difficult. The plan presented is largely the result of a process that might pretentiously be called 'micro-dissection', and is virtually a chart of fine, even, replacementsoil free of charcoal, pebbles and other inclusions.

Between the major, structural post-holes, a continuous channel of such soil 2 to $2 \frac{1}{2}$ inches wide was found to represent the building's wooden shell (Fig. 69). That this was plank-built was shown not only by the continuity of the narrow timber-channel but also by the presence of iron clinch-nails (Fig. 91 (10, II, 16, 17 and 19)), like those used by boat-builders, along its course. Despite the extreme ravages of corrosion, a few of the nails could be lifted from the ground, and a great many more that survived merely as rusty stains in the soil revealed their structure to careful cross-sectioning. In only one instance had the tell-tale triangular rove obviously been divorced from the rivet it had locked into place; and there was seldom any greater bending of the nail's shank than would be produced, in the normal course of events, by its having been driven through imperfectly registered holes in the members it was to join. Thus the testimonies of the nails and the soil interlock: $\mathrm{A}_{3}(\mathrm{~b})$ was in the end left to rot. Its timbers were never uprooted from the ground, and the rivets that held them together remained unbroken. The building must have been suffered to survive as a shambling wreck, slowly disintegrating. There was some evidence of repairs, especially in the eastern half of the building; but these seemed always to be indicative of a process of reinforcement, not replacement.

A faint, creamy-pink suffusion lining the edges of the timber-channel (especially the inner edge) could be identified as the characteristically fine detritus of unburnt daub washed down into the crevices between timbers and packing-soil while the structure still stood. Viewed as a simple plank-construction, $\mathrm{A}_{3}(\mathrm{~b})$ appears to have been remarkably flimsy; but it is arguable that its walls may have been given greater solidity, at and above ground-level,

Fig. 17. Area A. Plan showing primary horizontal section of Buildings A3-8 inclusive, with contiguous structures.
by a substantial casing of daub (to which, perhaps, the planking would give a seemly outer face). That, however, is not wholly borne out by the next piece of evidence to be noticed.

The most tellingly important single object discovered on the entire site was found against the inner (timber) face of the north wall, in the eastern half of this building: a Merovingian tremiss of base gold (Gr, Plate III), which lay on edge precisely between the inner side of a vertical (structural) wall-post and the defining edge of its packing-soil. It is of course remotely possible that this exceptional and vitally significant object merely happened to be available to be incorporated accidentally into the packing-soil pressed into place when this post (and $\mathrm{A}_{3}(\mathrm{~b})$ ) were put up; that it merely happened to fall into such intimate contact and alignment with the post - and that, from first to last during all the discovery-provoking turnings over of earth, this shining golden disc escaped every ancient workman's sharp eye - but the chances against that hypothetical combination of unlikely circumstances call for statistical rather than archaeological expertise in their calculation. The point must in conscience be laboured, because it will later be seen to be fundamental to the question of the absolute dates to be given in Yeavering's modern obituary. All who saw the discovery of this little coin spontaneously and unanimously declared it an object dropped and (in practical, everyday terms) irretrievably lost during the occupation or use of the building under investigation, and the terms of probability seem to allow of only the one conclusion.

The investigators were all completely convinced that the coin, $\mathrm{G}_{\mathrm{I}}$, was introduced and was lost during the lifetime of Building $\mathrm{A}_{3}(\mathrm{~b})$. Whether the reader happens to share a certain personal amusement in the conjuring-up of a bottoms-up picture of an early-medieval treasure-hunt matters not at all. The crucial, mechanical, point is that a rolling disc is as likely as not to fit itself snugly into the vertical crevice offered by the awful 'give' of a flimsy timber structure exposed to the full force of north-Northumbrian winds.

That, however, argues potently against the charitable hypothesis that Building $\mathrm{A}_{3}$ (b) must needs have been something better than archaeologically appears. The only acceptable compromise seems to lie in the proposition that $\mathrm{A}_{3}(\mathrm{~b})$ really was a half-hearted expedient: a wooden shell actually and visibly solidified by a plastering of daub only where the arrangements of its interior left particular areas exposed to view and craftsmanly treatment. Coin $\mathrm{G}_{\mathrm{I}}$, that is to say, can have made its undoubtedly direct contact with standing timber only because those parts of the walls concealed by abutting fixtures had been left unrendered. Given that there was a gap of $\frac{1}{8}$ inch where a platform or bench met the wall, the loss and non-recovery of this coin would be perfectly explained.

No pottery was securely associated with $\mathrm{A}_{3}(\mathrm{~b})$, but crumbs of the ware shown in Fig. 82 occurred in its packing-soil.

Building $A_{3}{ }^{(a)}$ (the timber structures of which are isolated in Fig. 68) was a great hall similar in plan to $\mathrm{A}_{3}(\mathrm{~b})$, but considerably more robust and deeply founded. Its vertical walltimbers (Plates $3^{1}$ and 32 ) varied in size from 13 to $14 \frac{1}{2}$ inches wide and $3 \frac{3}{4}$ to $4 \frac{1}{2}$ inches thick. In one small area it was possible to observe the transition from the lower pattern of discrete posts to the upper, unified wall-line; for here the withdrawal of the posts had been accomplished with the minimum of disturbance to the surrounding soil. It might have been thought, indeed, that the timbers had been sawn off and left to rot below ground-level, had their sockets not contained large fragments of baked daub and charcoal.
$\mathrm{A}_{3}$ (a) had been severely damaged by fire, as the last observation has implied. The indices of fire were distributed in much the same pattern as was remarked in $\mathrm{Ar}(\mathrm{b})$, in that the north and east walls of the eastern annexe, the north wall of the main chamber and the north-east corner of the western annexe were the portions least affected. The S.W. corners of the western annexe and the main building, on the other hand, had burned so furiously that animal-bones lying beside the wall had been partially calcined; and the dense mush of trampled charcoal in which they lay had further helped to preserve them. Elsewhere, there were traces of decayed bones, and a few patches of rust marking the presence of fragmentary iron nails (Fig. 9I), which were not, however, of the clinch variety. A severely corroded fragment of an iron slide-key $\left(\mathrm{IR}_{3}\right.$, Fig. 89) was found near the doorway in the east partition-wall.

A rectilinear enclosure, defined by a palisade-trench (Palisade 4), embraced the east end of the main hall. Burned material occurred less frequently within its timber-line than in that of the building it served, and appeared to be less directly derived; save at the west ends of its north and south sides, where the indications were fairly intense. The trench was flatbottomed, except where the posts of a gateway in the east side had been set more deeply into it.
$\mathrm{A}_{3}$ (a) had succeeded an earlier building which also had been burned, and its trenches cut into and across those of its predecessor (Plates 28 and 38 ). The burned material in the packing-soil of $\mathrm{A}_{3}(\mathrm{a})$ occurred in consistently smaller and more rounded fragments than in the previous instances, and there seems hence to be a distinct possibility that an interval of at least some months elapsed between the demolition of the earlier building in question ( $\mathrm{A}_{4}$ ) and the erection of $\mathrm{A}_{3}(\mathrm{a})$; whereas the same form of evidence suggests that the other buildings destroyed in this way were reconstructed or replaced almost immediately.

Buildings A4-8 and Associated Features (plans, Figs. i7, 24 and 6i; representative sections, Figs. 18-2r)
Building $A_{4}$ was the largest and most massively impressive of all the great halls on the site, and was built with most remarkable precision (Fig. 6I). It was certainly earlier than $\mathrm{A}_{3}$ (a)


Fig. 18. Area A. Vertical section across S. jamb-pit of A4's E. wall, demonstrating sequence $A_{4} / A_{3}(a) / A_{3}(b)$.


Fig. 19. Area A. Characteristic vertical sections of Buildings $A_{4}, A_{3}$ (a) and $A_{3}(b)$. (i) left, $A_{3}$ (a) and (b); right, $\mathrm{A}_{4}$, N. wall. (2) left, $\mathrm{A}_{4}$, N. wall; right, $\mathrm{A}_{3}$ (a) and (b). (3), A4, E. edge, E. jamb-pit, N. wall, showing intrusions of $\mathrm{A}_{3}$ (a) and (b). (4) left, $\mathrm{A}_{4} \mathrm{~S}$. wall immediately E. of S.W. corner-pit; right, associated buttresspit of $\mathrm{A}_{4}$. (5) Conjunction of $\mathrm{A}_{3} / 4 \mathrm{~W}$. end-walls. (6) left, $\mathrm{A}_{4}$ E. partition-wall, N. jamb-pit; right, $\mathrm{A}_{3}$, corresponding jamb-pit. (7) A4 N. wall, E. of A3's main chamber N.E. corner: right, Palisade 4. (Scale in feet.)
and $\mathrm{A}_{3}$ (b), as the horizontal and vertical sections demonstrate (Figs. 17, 18 and 19, Plates 28 and 45). That it was erected later than Building A2 is shown by the intersection of the two westernmost, external post-pits of A4 with the edges of corresponding features at the east end of A2 (Fig. 17). The point is further demonstrated in plan by the removal of all trace of Palisade 3 where its line is crossed by features belonging to Buildings $\mathrm{A}_{3}(\mathrm{a}), \mathrm{A}_{3}(\mathrm{~b})$ and $\mathrm{A}_{4}$. Additional observations concerning the chronological relationship between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ will be made in the course of section III of the present chapter, below.
$\mathrm{A}_{4}$ bore a great resemblance to A2 (Fig. 60, cf. Fig. 6I); but differed from it in three respects. First, whereas A2 had two partitions A4 had only one, at the east end. Secondly, $\mathrm{A}_{4}$ is remarkable for the very great emphasis placed on the external posts, which in $\mathrm{A}_{4}$ were set in large pits (Plates 4, I7, 33 and especially 35 ) which uniformly showed the partial


Fig. 20. Area A. Vertical sections of A4's major buttress-pits. $N=N$. wall. $S=S$. wall: both relevant series of buttress-pits numbered $1-12$ from W. to E. (for plans see Figs. 17 and 61).
collapse of the filling characteristically caused by removal of an inclined post. (The phenomenon described in connexion with $\mathrm{D}_{2}(\mathrm{~b})$ 's buttress-pits, p. 98 and n .65 , occurred here also, but rarely and less strikingly). Some of A4's S. buttresses appeared possibly to have been reinforced by a second post, but the disturbances produced by demolition were too great to allow of certain diagnosis. Thirdly, longer and wider than $\mathrm{A}_{2}, \mathrm{~A}_{4}$ was founded in trenches of quite extraordinary depth (Fig. I8 and Plate 40). In several places the floor of the external wall-trench at the gable ends of the building was as much as 7 feet deep, measured from the modern ground-surface; and, since it is certain that the general level has been reduced by centuries of ploughing, the depth from the former surface must have been greater - probably at least $7 \frac{1}{2}$ to 8 feet. The side-walls, as in A2, were slightly less deeply founded; the bottoms of their trenches lay on average just under $6 \frac{1}{2}$ feet from the modern surface. The evidence of sectional construction and demolition noticed in connexion with Building A2, above, was repeated here. A4, however, came to a more dramatic end: on all hands there was evidence of its destruction by fire. As in $\mathrm{Ar}(\mathrm{a})$ and $\mathrm{D}_{2}$ (p. 43) the condition and distribution of burnt daub-fragments indicated that the fire had grown in intensity from S.W. to N.E.

The wall-timbers of A4 were strikingly uniform in size, consistently maintaining a standard very close to II inches by $5 \frac{1}{2}$ inches (Plate 39). The door-posts, set in enormous pits (Plates 36 and 40), had left sharp basal impressions in the sand, and there was no doubt that all had been 22 to $22 \frac{1}{2}$ inches wide and If to $1 \frac{1}{2}$ inches thick. Here again, as in A2, averaging of the dimensions of the clearest examples gave a section $22 \cdot 1$ inches by II. 05 inches (Figs. 60 and 6r).

The east and west doors had an interesting feature in common. In each case the original north jamb had been removed from its pit and set about 2 feet further to the north (Figs. I 7 and 6 r). The bases of the original pits showed vaguely rectangular impressions in which there were peripheral concentrations of grits; but the fillings above gave only the most diffuse traces of corresponding vertical anomalies, and were of absolutely clean sand and gravel (apart from occasional lenses of humus). The sockets of the secondary posts, however, were (like the 'original' southern post-holes and the main wall-lines) made conspicuous by many inclusions of vitrified daub, occasional traces of plaster ${ }^{57}$ and by charcoal-blackened soil. A post-hole with a clean filling, south of the north door's west jamb, probably represents a similar alteration; but disturbance caused by later building had removed nearly all trace of the timber it supported.

Within Building $\mathrm{A}_{4}$ was a complex of post-holes (Fig. $\mathrm{I}_{7}$ and Plate $\mathrm{I}_{7}$ ), which represented features belonging to not less than six successive structures. Ten post-holes were distinguished from the rest by their relatively greater diameter and depth and, particularly, by the presence of numerous small, firmly wedged packing-stones and a characteristic mixture of derived material in their fillings: burned daub, charcoal, calcined scraps of bone, and small reddened pebbles. These holes formed two evenly spaced rows parallel to the walls of A4, and divided the interior of the building symmetrically into three longitudinal parts. Clearly, they represented the roof-posts which had been standing when A4 was ablaze. Slightly to the south of each post-hole of the northern row was another, of similar depth, from which burned material was completely absent (although packing-stones were again present). Two unambiguous intersections of representative pairs of these post-holes confirmed that the series with clean fillings had been replaced by that in which fired material occurred so
characteristically. It should further be noted that the lateral distance between those two series corresponded with the interval between the earlier and later door-posts, remarked in the preceding paragraph (Fig. 6x). The implications of these changes will be discussed in section III, below.

Between the two operative rows of roof-posts were two almost parallel lines of smaller posts (Figs. I7 and 6I), which appeared partly to have been driven into the ground. In one of them was found a minute, circular mounting of gold filigree (G2, Plate III). Midway between these longitudinal series, and laterally aligned with the western sides of the western jambs of the north and south doors, was a bowl-shaped pit, into the floor of which two small, pointed posts had successively been driven. Its filling was free of daub and charcoal.

All the pottery found in secure association with $\mathrm{A}_{4}$ was of the same character as the pieces shown as Fig. 82 (5) : rough, hand-made ware such as was typical of Ar, A2 and various other buildings.

Lying unobtrusively within the complexities of this area was Building $A_{5}$ (Figs. 17 and 67, and Plate 29), one of the two smallest trench-built dwellings on the site (the other being Building D6, in Area D, shown in Fig. 54). A5 is, indeed, better described as a house or even


Fig. 21. Area A. Vertical sections of $\mathrm{A}_{3}(\mathrm{a})$ and (b), and $\mathrm{A}_{5} .(1) \mathrm{A}_{3}(\mathrm{a})$ and $\mathrm{A}_{3}(\mathrm{~b})$, W. annexe, S . wall (left): Building $\mathrm{A}_{5} \mathrm{~S}$. wall (right). (2) $\mathrm{A}_{3}$ (a) and (b), W. partition-wall (right): Building $\mathrm{A}_{5}$, E. wall (left). (3) Buildings $\mathrm{A}_{3}(\mathrm{a})$ and (b), W. annexe, N. wall. (4) $\mathrm{A}_{5}$, deepest point in N. wall (one of a series of lodgings for truly structural posts). (5) A5, S. wall, E. jamb-pit.
a cottage than as a hall. In plan its sides measured roughly $27 \frac{1}{2}$ feet $\times 19$ feet. The trench in which it was founded was rarely more than ${ }_{15}$ inches deep from the surface of the subsoil, and its filling yielded only intermittent indications of a thin wall-line (with faint traces of pink daub-wash) between larger posts set at varying intervals. The floor of the trench proceeded in a series of roughly levelled sections, with shallow terminal depressions marking the positions of vertical timbers resting directly on the subsoil. At the north-east and south-east corners the junctions between the side- and end-trenches were incomplete: at a low level, in the corners, small ridges of subsoil remained undug. There was a door in each wall, save possibly the west (where the evidence had been disturbed by later building and was ambiguous). Sherds of very thick, hand-made pottery (represented in Fig. 8o (middle)) occurred in the trench-filling beside the south door.

The foundations of Buildings $\mathrm{A}_{3}(\mathrm{a}), \mathrm{A}_{3}(\mathrm{~b})$ and $\mathrm{A}_{4}$ had all been dug through the remains of $\mathrm{A}_{5}$, as is obvious from the plan in Fig. 17; but attention is drawn particularly to the fact that its west wall-trench had been partially cut away by the east end of A2. Thus, A5 was the first of all the trench-built structures in this complex.

There were, however, at least two earlier structures wholly based in series of separate post-holes. Building $A 6$ (Figs. 17 and 67 ) was of this character, but was of much the same size as $\mathrm{A}_{5}$, by which some of its post-holes had been removed. The surviving holes of A6 were readily related by reference to their fillings, which were uniformly tinged with the characteristic pink colour of unburned daub. Building $A_{7}$ (Figs. I 7 and 67 ) was shown to be earlier than A6 by only one intersection of post-holes, but the fillings of the two series were so uniformly different that there is no doubt of their separate identities and relative sequence. The sockets of $\mathrm{A}_{7}$ contained dark humus and a high proportion of gravel. While there was fairly direct evidence that the walls of A6 were of wattle-and-daub, it was not possible to determine this point in the case of A7. Post-holes of both A6 and A7 yielded small scraps of the same kind of thick, hand-made pottery as was found in $\mathrm{A}_{5}$.
Palisades I and 2 are seen to terminate at the western corners of Building A4; and 2, with its abundant indications of damage or destruction by fire, must be presumed to have been standing when $\mathrm{A}_{4}$ was burned down. Its easternmost post-holes contained vitrified lumps of daub, some of which, when split open, revealed an off-white core of plaster in which lime was present. Precisely similar fragments occurred more numerously in the sockets of A4's wall-timbers. ${ }^{58}$

Palisade 5, represented by series of separate, 'staggered', post-holes, enclosed a nearly rectangular area bounded on the west by the east end of Building A4. As the plan (Figs. 17 and 26) demonstrates, Palisade 5 was later in origin than the first two recognized phases of the 'fort', and earlier than its third (seemingly penultimate) phase. Here, however, we are mainly concerned with the relationship between this palisade enclosure and Building A4, which is established beyond doubt by the setting of the palisade's large terminal post-pits between the 'buttress-pits' (at the north-east and south-east corners, respectively) of the hall. In this connexion it is significant that none of the palisade-holes contained charcoal or burned daub, although they had been refilled with sand and humus when their posts were pulled out. It seems, therefore, that this enclosure was comparatively short-lived and was removed before the time of the conflagration that destroyed Building A4.




Fig. 24. Area A. Plan of excavated trenches and post-holes (corresponding with Fig. r7). Form-lines at 6 -inch intervals.

Within Palisade 5 was a more irregular series of post-holes, defining a small area outside the east door of Building A4. Most of these were shallow and round-bottomed, but one was of abnormal character, and will hereafter be distinguished as Post-hole AX (Figs. 17, 25 and 61). It had been dug deeper than the rest, and a pointed post had been driven into its floor. All the posts had ultimately been withdrawn, but the socket of Post-hole AX was exceptional in containing materials other than clean soil. It appeared deliberately to have been partially packed with fragments of bone when its post had been removed. Decayed flakes of enamel from teeth of sheep or goat, and a small, conical mass of buff-coloured powder which appeared to be the tip of a horn from an animal of the same type, were all that could be distinguished in the crushed mass. On top of this packing of bone a flat piece of sandstone lay horizontally across the socket, and above that was dark soil containing a few small fragments of vitrified daub. It is practically certain that the post was withdrawn before the fire to which the daub-fragments refer, and that those were later intrusions.

As there is no point of correspondence between the form and contents of Post-hole AX and the neighbouring post-holes, there seems to be no basis for supposing that they were in fact related. It seems more likely that Post-hole AX intruded by chance into a series of defunct post-holes representative of an earlier building, resembling A6 and A7, to which the name Building A8 may tentatively be attached.

Post-hole AX does appear to be related, however, to one of the strangest and most interesting minor features of the site. The post it supported stood at the east end of a grave aligned (east-west) precisely on the long axis of Building $\mathrm{A}_{4}$ and immediately outside the threshold of its east door. This, which will be called Grave $A X$ (Figs. i7 and 62), contained various traces requiring detailed description in addition to the plan given in Fig. 25.

Just within the eastern end of the grave, and 2 inches below its surviving surface, three small patches of green discoloration in the filling (here of very fine gravel and sand) were noticed. Careful removal of the surrounding soil, with a dental scraper and a fine paint-brush, revealed that two of three indications were in fact the highest projections of a more extensive outline. This described an irregular arc of a circle, met tangentially by one of the patches first observed. The third of the original indications was found to be an isolated spot. The plane on which the outline could be traced was inclined very slightly from the horizontal, tipping down towards the west end of the grave. It was thought at this stage that the green arc marked the rim of a small bronze bowl or bronze-bound cup, but, when it had been drawn, further delicate probing disclosed that there was no direct continuation of the marks horizontally or vertically: the sand and grits below them reverted within $\frac{1}{8}$ inch to their natural colours. However, a very small, spherical bead of green powder, about $\frac{1}{5}$ inch in diameter and $\frac{1}{10}$ inch thick, was found $\frac{3}{4}$ inch deeper, almost vertically below the first isolated spot. At this point a pocket of concentrated grits, bounded by the arc, reached its lower limit; but it continued horizontally (at a slightly higher level) westward, narrowing sharply and leading into a cylindrical channel (not unlike an infilled mouse-hole) of about $\frac{3}{4}$ inch diameter. At the beginning of the channel the corroded remains of an iron spike or nail were found, flanked by two further green patches to north and south respectively. The cylindrical feature, thought to represent a wooden pole or shaft, was followed with great difficulty to the west end of the grave. At one stage, doubt was entertained as to its reality, for the indications were visible only intermittently and on the closest inspection; but the


Fig. 25. Area A. Grave AX, composite horizontal section built up from traces recovered from 0 to $7 \frac{1}{2}$ inches, measured upwards from the grave-floor. See also Fig. 94.
emergence of two additional traces of bronze along its line confirmed the original interpretation. Here, again, no metal survived; but the indications were cylindrical, and it was evident that they had once been thin bronze bindings around a wooden shaft. Two further cylindrical green patches were found, respectively north and south of the 'shaft' and at right-angles to it, and a third lay vertically below it; with faint indications of wooden cross-pieces connecting all three with the main member. It is suspected that a fourth cross-member was originally present and that its traces had either been removed by the plough or had gone unnoticed by the excavator. A similar, but shorter, 'pole-hole', with traces of bronze oxide near one end and an iron spike at the other, was found lying below the first horizontally at an angle of about $45^{\circ}$.

During the investigation of the features described above, the grave-filling was found to have contained an animal's skull. This lay under the east end of the wooden shaft, and survived for the most part merely as a minutely thin film of buff-coloured powder, held in place by a matrix and core of sand. It was possible only to plot its main outlines; but the silhouette of one horn visible in side-elevation, the characteristic triangular section of the other, and a consecutive series of remains of teeth, indicated that this was certainly the flattened skull of a goat, facing eastward.

Delicate skimming and brushing of the underlying level of the grave-filling revealed powdery traces that represented a human skeleton. These were examined and plotted in successive, thin levels, and the record which was thus built up showed that the body had lain on its back, inclined towards its left side, in a slightly flexed position, arms drawn up and head to the west. A small section of the sinciput and a few cappings of enamel from the teeth were the only portions of the skeleton which retained their structure.

The grave contained no burned daub whatsoever, and, although such traces were specially sought, only two small flecks of charcoal were observed within its filling, which was of clean sand and gravel with a few lenses of clean, brown humus (in all these respects closely resembling the filling of the original, abandoned, north jamb-pit of A4's east door, close by). Thus, it is scarcely conceivable that this grave could have been made in the period immediately after the burning of $\mathrm{A}_{4}{ }^{59}$ and it is safe to conclude that it had actually been in place while $\mathrm{A}_{4}$ stood. The point is reinforced by the condition of another grave, Grave $A X$ (Figs. 17 and 25) : demonstrated to be the later feature by its intersection with the foot of Grave AX, it contained over a hundred separate fragments of vitrified daub (larger and far less abraded than those in the trenches of Building $\mathrm{A}_{3}(\mathrm{~b})$ ) and its filling was generally blackened by charcoal. Apart from a few scattered flakes of enamel from the teeth of a sheep or goat on the floor of its east end, this grave contained no trace of significant objects. The diffuse outline of a human skeleton was recovered, and the crowns of eight of its teeth were found in situ.

A possible interpretation of the contents of Grave AX will be discussed in Chapter 4, section (c), p. 200. Its general implications will be considered in section III of the present chapter, p. 141, in which the suggestion will be advanced that its position and special character relate it to the earliest constructional phase of Building A4.

Grave AY appears to be a later reference to the known presence of Grave AX, and will be further discussed in the course of the section that now follows.

# Area B: The Eastern Cemetery, Building B, The Great Englosure’s Palisades and the Ring-Ditah (Plates $42-54$, inclusive) 

(i) The Eastern Cemetery, Pit BX, Grave BX i and Building B (plans, Figs. 26 and 27).
Grave AY, described above in connexion with Buildings $\mathrm{A}_{4}-8$, was related by the burned material in its fillings to a series of graves, earlier than and running eastward from Palisade 4 (Figs. I7 and 26). Two continuous rows or strings of graves, with the northern of which AY was in alignment, were especially conspicuous. That AY and these adjacent graves were closely contemporary can hardly be doubted.

Eastward, the strings of graves led into an area of far more intensive burial (Plates 50, $5^{1}$ and 54). The whole of the area in which burials occurred, from Grave AY eastward, will hereafter be called the Eastern Cemetery. ${ }^{60}$

The Eastern Cemetery was apparently in continuous use throughout a long period. A complex series of intersections enables five successive phases of use to be distinguished, in all of which total absence of grave-goods and adjuncts of dress was characteristic. In Figs. 26 and 27 the earliest graves are indicated by the lightest of the conventional tints, and those of the subsequent phases by successively darker tints and hatchings.
The first phase is well represented by the graves already noticed in connexion with Grave AY; for it is typified by groups of graves dug in isolated linear series, in which the foot of one grave was laid at the head of the last (the arrangement is best described in naval parlance, which would have the graves 'in line ahead'). These, which here will be called string-graves, extended further to the west than those that followed (Fig. 31). They were characterized by the waywardness of their linear patterns, and by the frequency with which they appeared in the primary horizontal section to be continuous, unsegmented trenches. From the frequent continuity of the upper contours of the graves, and of their fillings also, it appears that, initially, a long channel was dug some inches into the subsoil, was then resolved into a chain of individual graves by further localized digging within it, and was ultimately filled in as a whole in one operation. There is no doubt that some at least of the grave-groups of this phase represent contemporary series of simultaneous burials. Their charcoal-blackened fillings, and the presence of large, sharply fractured pieces of vitrified daub in those which were westernmost, indicate that these particular burials were made soon after a fire had devastated structures of timber-and-daub.

The second phase (Fig. 33) saw a systematization of the practices of the first, and a restriction of the burial area. Whereas, formerly, strings of graves had been allowed to run irregularly westward to - or, more probably, had proceeded eastward from - the vicinity of Graves AX and AY, all the demonstrably later burials were confined within an area whose western limit did not extend so far.

This confined area was found to have been enclosed within a fence, of which the west side was represented by five post-holes, in a north-south line, $3^{8}$ feet east of the east end of Building A4. In the small area that was investigated immediately to the west of this line,

Fig. 26. Area B. Primary horizontal section of the Great Enclosure's palisades, the Eastern Ring-ditch, Pit BX,
graves of the Eastern Cemetery, and Building B. Here the Great Enclosure is conventionally miscalled 'Fort'.
only three graves were seen to cross it; and two of these were aligned with the two westernmost rows of early graves. On the other hand, the heads of eight later graves lay within 2 feet of the line on its east side; two, of the four that actually touched it, cutting away the eastern edges of two of the post-holes. The southernmost post-hole exposed was later than a grave which almost certainly belonged to the southern row of string-graves to the west.

The northern boundary of the fenced cemetery was represented by an east-west line of post-holes. This series appears to be incomplete, and it is possible that other post-holes were not recognized against the background of disturbed soil; but that the boundary was strictly defined and respected is additionally demonstrated by Plates 48,49 and 50 , where the abrupt contrast between the area disturbed by burials (to the right) and the ground free of burials (to the left) is clearly seen.

Within the excavated parts of the fenced area, ${ }^{61}$ the burials of the second phase were laid out in closely packed, parallel straight lines: head to foot as before.


Fig. 27. Area B. Primary horizontal section of Building B and graves of the Eastern Cemetery.

The third, fourth and fifth phases (Fig. 33) were represented by successive series of superinhumations, which partly obscured the orderly pattern of the second phase (Plates 5 I and 52 ). Those shown in Fig. 26 call for no special description, and accordingly attention will be turned to other features in the same area which require detailed consideration.

Pit BX (Figs. 26, 28, 31, 32, 33 and 62) lay immediately inside the northern fence. It was large and deep, with an unusually clayey filling packed round a large wooden post, Post $B X$, around the base of which were diffuse traces of decayed bone. The original post (about I I inches in diameter) had been withdrawn, and the surviving part of its socket had received dark, gravelly soil containing small fragments of burned daub and charcoal. A new post had then been inserted into the higher two-thirds of the original socket still remaining open. Evidently the later post was partly driven into position: its lower end could be seen in vertical section as a silhouette in fine, even, replacement-soil, and was exceptional in that it was pointed. It is a matter of some interest that the foot of the post appeared to have rotted in situ. Since the filling of the upper parts of the socket was composed of gravel and silted soil, it was concluded that the secondary post had been broken in the course of its ultimate withdrawal and that the earthfast fragment had been suffered to remain in place. As this post was about io inches in diameter, this evidence suggests that it must already have stood in position for a considerable period at the time it was removed.

Grave $B X I$ had been cut into the west edge of the filling of Pit BX, and had itself been disturbed by the removal of the secondary post (and possibly by a palisade-trench ( $\mathrm{FP}_{4}$ ) which had been destroyed at all points of intersection with other graves). BXI was earlier than those graves with which it intersected, and could have been contemporary with the string-graves or with Grave AX. The latter alternative is the more likely because Grave BXI, in contrast to the string-graves, contained no burned debris. In this connexion, the curious exactitude of the alignment of Building A4's long axis with Grave AX, Grave BXI and Post BX may be significant (Fig. 62).

Pit BX and the graves adjacent to it were surrounded by the remains of a ring-ditch, their relationship with which will be discussed when that feature is described in (ii) below.

Building B (Figs. 26-28 and 33 and Plates 50-53) was a hall-like structure with a western annexe. It proved to have had throughout its existence an intimate connexion with the cemetery and to have been, indeed, the focus of burial in the later phases. The main body of the 'hall' had a longer stratigraphical history than its annexe: its foundation-trenches had cut through only the wandering strings of graves of the first phase of burial, and all the other graves with which this part of the building was in direct contact had been cut partly into the packing-soil around its walls (Plate 53). The building had been extensively repaired after most of the burials were in place; and it was at this time that the annexe was added, its trenches cutting ruthlessly through grave-fillings of the previous phases (Plate 51). Fire appears to have been the occasion of the remodelling, although its effects were less extensively evident than in other instances. The fillings of the re-cut southern wall-trench of the main chamber, and of a number of subsequent graves adjacent to it, contained much reddened and baked daub to which disintegrated (as it were, puddled) charcoal commonly
adhered. The floor of one extremely small grave, immediately outside the eastern half of the north wall, was itself reddened, as if it had been open at the time of the fire and had been filled by a fall of burning thatch or wood.

The soil in and around the foundation-trenches of Building B was so densely packed with the powdery traces of successive, uncoffined interments that not infrequently several sets of teeth, manifestly in situ, would be found within a few inches of each other, vertically and horizontally. A number of late graves against the walls were of segmental plan: in each case the lower ends of the wall-timbers had been exposed to allow of the body'sinsertion (Fig. 34). In two such instances sufficient traces of the skeleton remained to show that the corpse had been placed on its side, propped up against the wall. In one instance the body had been laid in a flexed position around an inclined buttress-post outside the north wall.

The many disturbances to which this building had been subject had blurred the record of most of its individual wall-timbers (Fig. 27), but sufficient details were recovered to show that in its original form the structure very closely resembled Building $\mathrm{C}_{2}$ (which is shown in Fig. 38). Its later plan connects it with Buildings $\mathrm{AI}_{\mathrm{I}}(\mathrm{c})$ and $\mathrm{C}_{4}$ (Figs. I3 and $38 / 39$, respectively).

Fragmentary remains of two lines of string-graves were detected within the area covered by Building B. They converged towards the west, but their point of convergence had been removed by later disturbance. At all their points of intersection with other graves, they were shown to be the primary features, and there is a sound basis for their attribution to the first phase of burial.

The general pattern of the area south of Building B, seen in horizontal section, appeared remarkably like the foundation of a small, boat-shaped building, with its squared-off 'stern' to the east (Plate 54); but what were at first thought to be foundation-trenches proved to be further rows of apparently simultaneous burials, overlaid by very few later graves (Fig. 27). An unusually large and deep grave of sub-rectangular plan ( $\mathrm{BZ}_{5} 6$ ), and a smaller (nearly square) pit, occupied the area within the superficially boat-like setting. Save for a somewhat indefinite central anomaly (free of burnt material) which might possibly have held a stumpy upright of wood or stone, the pit was featureless; but the grave was unique in the Eastern Cemetery, in that it contained iron objects (Figs. 35 and 87, Plate 54) in association with the indications of an extended skeleton. The objects in question formed a group at the waist-line of the body: a buckle, belt-loops, a curious fitting of uncertain use, and a small knife.

It is quite uncertain whether any significance is to be attached to this 'boat-shaped' setting of graves in itself. While there is no doubt about the reality of the individual strings of graves, which are characteristic of the first phase of burial, the patterns formed by their combination could have been fortuitous. In the present case, the western half of the pattern is so ambiguous that by judicious selection it could be transformed variously to suit different interpretations. The eastward-pointing ' $V$ ' of its eastern half, however, merits special consideration, since this shape is repeated to the north (within the area enclosed by Building B) and possibly to the west (by the two westernmost rows of graves in Fig. 31).

It is evident from Fig. 3I that Grave AX or Post AX was the point of reference from which one string of graves was set out. If other grave-rows similarly proceeded from such points (graves of special importance, perhaps, or standing posts), it would not be inconceivable that



Fig. 29. Area B. Vertical sections. Upper, section of Great Enclosure's inner trench, 7 feet N. of the N. edge of the E.-W. balk shown in Figs. 17 and 26 . The dark feature breaching Palisade-trench $\mathrm{FP}_{4}$ is an isolated later post-hole. Lower, the most starkly simple reconstruction to be inferred from the above.
two rows might radiate from one single point, thus forming a $V$; but the evidence is insufficient to allow any firm conclusion to be reached. Nevertheless, it may be significant that the exceptional grave, $\mathrm{BZ}_{5} 6$, lay inside the setting which is particularly in question, and that, although the ground within and to the north and west of Building B was subject to an almost excessive degree of superinhumation, this southern area remained immune from later, systematic exploitation.

Although, as has been remarked, the southern boundary of the cemetery did not fall within the area excavated, a small experimental exposure of the ground 25 feet south of the southern limit of that area shown in Fig. 27 disclosed no trace of burial. Hence it seems more likely than not that the cemetery's southern boundary was determined by westward prolongation of the line of Building B's south wall. If this was so, the absence of systematic superinhumation from the area south of Building B becomes explicable; but the extreme intensity of burial within the defined limits of the cemetery provokes curiosity as to the possible reasons for such severe and unduly prolonged restriction of a formerly more extensive burial area.

The string-graves south of Building B were flanked immediately to the east by a series of graves showing a more rigid orientation, with a possible western terminus roughly aligned with the east wall of the building. The stratigraphical evidence was insufficient to relate these graves to the main sequence. All that can be said is that they are more likely than not to have formed a group in some real sense, and to have been contemporary with Building B. They might be conjectured to represent an enforced, later extension of the fenced cemetery; in which case the preservation from further burial of the area directly south of Building B would seem the more remarkable.


Fig. 30. Area B. Vertical section of the outer foundation-trench of the Great Enclosure, drawn 7 feet N. of the N. edge of the E.-W. balk shown in Figs. 22 and 25 . Here the deep trench of the Enclosure's final phase is seen to cut through the shallow palisade-trenches of the presumably initial phase.

To sum up, only the most limited general conclusions as to the significance of the Phase i features of the cemetery can be reached on the evidence available. The simultaneous aspect of the string-graves, with all of which burned debris was associated, is surely a testimony to events. Their linear arrangement is obviously deliberate, and is more likely to relate to ritual and belief than to mere practical expediency. The apparent relationship between Grave AX and Post BX, and between Grave BXI and Post BX, noted above, gives rise to suspicion that the rows of string-graves, also, proceeded to or from certain physical points of reference. It is possible that the rows south of Building B were laid out to enclose, or to avoid, a contemporary or earlier grave of special importance.

The characteristics of the early graves serve to emphasize, by contrast, the order and concentration typical of the cemetery's later development around Building B; and their attendant uncertainties underline the need for further, more extensive, excavation in this area.

## (ii) The Great Enclosure's Palisades and the Eastern Ring-Ditch

 (Plan, Fig. 26)Limitations of time, labour and funds severely restricted the extent to which the fort-like enclosure could be investigated and, consequently, various problems connected with it remain unsolved. Nevertheless, sufficient positive evidence was obtained to show that at least two constructional phases preceded its transformation into the remarkable structure which the air-photograph in Plate 3 so strikingly displays.

There, its outlines are slightly reminiscent of the shape of a tore of the Celtic Iron Age, in which simile the terminals are represented by two circular entrance-works (Area BC, below); but, as appears more clearly in the plan in Fig. 12, a torc of which the curve has been as it were exaggerated at three points and mostly removed elsewhere.

The enceinte of the Enclosure is seen in the air-photograph as two parallel, dark lines, of which the inner is the broader. At the outset these were naturally interpreted as defensive ditches, and it was assumed that they had been flanked internally by complementary banks which had been levelled by weather and cultivation. Both ditches, as they will at the present stage be called, were exposed in horizontal section to the east of Building A4. In the southern part of this exposure (Plate 46) they were met and crossed, almost at right-angles, by the westernmost lines of graves of the Eastern Cemetery. Thereby, the relationship between the 'fort' and the cemetery was positively established; for, where they coincided, the graves had without exception been dug into the already complete fillings of the ditches.

In the northern part of the exposure, however, the horizontal upper surfaces of the ditchfillings remained intact, being outside the well-defined northern limit of burial. Here it was apparent that the 'fort' had certainly passed through four (and possibly five or even six) structural phases, which will be described with reference to the primary horizontal section. In $G E$ ( $=$ Great Enclosure) Phase IV the two broad 'ditches' were cut into earlier features, of which A4's palisade (Palisade 5) was one. A4's palisade was cut across an earlier palisadetrench, FPi, on the west side of the outer ditch (Plate 42). FPi, in turn, had been cut through the filling of an earlier discontinuous trench which itself was breached by the outer 'ditch' of GE Phase IV. This relationship is taken, therefore, to represent FPi as a GE

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Fig. 32. Area B. Above. Detail-plan of area around Pit BX. Crossed arrows show locations of appended vertical sections. Below. Vertical sections of Pit BX and contiguous graves: (a) socket of original Post BX; (b) Grave BXI; (c) pit made for removal of original post; (d) pointed end of secondary post left in situ; (e) pit made during removal of upper part of secondary post (diffuse central anomaly possibly allows of a third, thinner post having been inserted).
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Phase III structure replacing the discontinuous palisade-trench, which is accordingly assigned to GE Phase II.

The 'ditches' of GE Phase IV themselves were marked by longitudinal anomalies. These, as seen in the primary horizontal section, were initially thought to be narrow, later palisadetrenches referable to a nominally fifth phase; but later evidence, set out below, showed this interpretation to be false. One such anomaly ran along the middle of the outer ditch, and two more divided the surface of the inner ditch into three roughly equal parts. All three were lined irregularly with fragments of charcoal and vitrified daub.

Between the 'ditches' of Phase IV (Plate 43) were two well-defined palisade-trenches ( $\mathrm{FP}_{2}$ and $\mathrm{FP}_{3}$ ), in which regular series of deeper post-holes had been dug. The fillings of both were blackened by included charcoal. These palisade-trenches were parallel with each other throughout, but only locally with the longitudinal anomalies in the Phase IV ditches the two sets of features converged noticeably to the south. $\mathrm{FP}_{2}$ and $\mathrm{FP}_{3}$ may well represent a quite separate early phase, but at least as good a case can be made out for their having been of Phase II, since they are uniformly intermitted in line with an evident break in the palisades of that phase immediately to the west. Additional, separate, post-holes emphasize this eastwest alignment, and suggest that there was an entrance at this point in one or more phases. The evidence at present available is insufficient and ambiguous, and the true significance of these two palisade-trenches cannot be determined until the defences have been more extensively explored. For the moment it seems most economical, therefore, to assign $\mathrm{FP}_{2}$ and $\mathrm{FP}_{3}$ to GE Phase II.

A shallow palisade-trench ( $\mathrm{FP}_{4}$, Figs. 26 and 29, and Plate 46 ) was found to have been cut, in the northern part of its exposed course, into the filling of the inner ditch of Phase IV. Southward, $\mathrm{FP}_{4}$ became exceedingly shallow. The surface of the filling of Grave BXI, cut into the eastern side of Pit BX (Plate 49), was laterally scored by a track of small pebbles on the line of the palisade; but no more than a dozen pebbles were involved, and the matter is accordingly one of strong probability rather than absolute certainty. Where this palisadetrench could be seen in relation to other graves further south, however, it was certainly interrupted by them. The divergence of this feature from the line of the inner fort-ditch of Phase IV does not encourage the view that it was part of the structure of that phase. Only vague and diffuse disturbances (at unusually large intervals) were present to indicate the places within it where there had once been timbers, and at the time of excavation the writer noted his impression that the timbers had been withdrawn before the packing-soil around them had become consolidated. Pending wider investigation of the defences, it is probably safest to regard $\mathrm{FP}_{4}$ provisionally as a very short-lived structure representing a correspondingly brief Phase $V$.

Another palisade-trench $\left(\mathrm{FP}_{5}\right)$, of different character from any of the others, lay at a greater remove to the east (Figs. 26 and 27, Plate 49). It followed a smoothly curving course from north-west to south-east, contrasting in this with the straightness of the other trenches within the northern part of the excavated area. It was almost entirely filled with packingstones, which had been piled round a closely set series of vertical posts. This trench, quite free from charcoal and daub, was earlier than all the graves with which it came into contact, and appears from the air-photographs (Plates 3 and 4) to represent a very early phase of the 'fort', which could even be contemporary with the field-system. Accordingly this must be assigned tentatively to GE Phase I.

Before turning from the primary horizontal section of this area, attention must be drawn particularly to the behaviour of the staggered post-holes of Palisade 5 (noticed in connexion with Building A4, Area A) in relation to the outer fort-ditch (Figs. 17 and 26). The north and south sides of this enclosure were observed quite certainly to be later than FPi : and both the north and the east sides had been partly cut away by the broad ditch of GE Phase IV. The validity of these horizontal intersections was fully confirmed in vertical transverse section.

Cuttings were made through the fillings of the outer and inner fort-ditches at various places in this area. In the outer ditch (Fig. 30) the broad, central channel of GE Phase IV (Plates 42 and 44) was shown decisively to have interrupted the features attributed to GE Phases II and III, which were visible as narrow, shallow trenches to the east and west.


Fig. 34. Area B. Diagrammatic detail-plan of area around N.W. corner of Building B's main chamber, demonstrating attitudes and short stature of associated bodies. In many cases only the enamel casings of teeth survived visibly; and in others not even those could be found.

Thick, hand-made pottery sherds (Fig. 8o (top)) were found in the trenches of GE Phases I and II. The filling of the GE Phase IV channel proved to be vertically bisected by the longitudinal anomaly seen in the primary horizontal section, and at the bottom level a corresponding, narrow slot was found to have been dug into the bed of the ditch (Plate 45).

The inner ditch, like the outer, had allowed occasional traces to remain of earlier features that it had superseded, but they were slight and disconnected. The edge of what appeared to have been a palisade-trench was intermittently visible outside it, to the west (Plate 43). This appeared to have been the twin to the discontinuous GE Phase II trench interrupted by the west edge of the outer ditch (and by FPi). There was sufficient evidence overall to confirm that the inner ditch, in its visible form, was contemporary with the GE Phase IV channel of the outer ditch, as was implied by the uniform parallelism between the two features (Plate 4). Its filling (Fig. 29, upper, and Plate 47) was found to be divided into three sections by two vertical anomalies that corresponded, above, with the putative 'palisadetrenches' observed in horizontal section; and, below, with two narrow, north-south slots cut more deeply into the subsoil from the floor of the ditch. The filling of each outer section so defined consisted of a series of tips, and was remarkable for the high proportion of coarse gravel and rock-fragments it contained, and for the precise definition of its inner side. Here the stones were massed together, and in the section illustrated the vertical position of a boulder beside the western anomaly is especially noteworthy. The middle section of the filling was, by contrast, finer, and less conspicuously laminated.

One critical feature, found to be common to both the inner and outer ditches wherever their fillings were removed, must be remarked on with special emphasis: their sides were found invariably to be sharp and smooth, quite free from the effects of wind-erosion. This could not have been the case had these features been open, defensive ditches of the normal kind. It is noteworthy that within a week of their having been exposed, during the investigation, differential erosion had severely corrugated (even, in places, undercut) these formerly smooth slopes; and it may safely be assumed that had they originally been left open for more than a few days they would inevitably have displayed similar indications of weathering. Thus the significance of the two parallel, basal slots, and of the vertical anomalies running up from them through the divided filling-material, becomes apparent. The 'fort' was not defended by open ditches and upcast banks of sand, but by timber walls set in enormous foundation-trenches (Fig. 29, upper and lower). Confirmatory evidence was provided by the bed of each slot, on which large timbers had left sub-rectangular impressions which were but narrowly separated one from another.

The Eastern Ring-ditch (Plate 49) must be noticed at this point. Its plan is shown in Fig. 26. There it may be seen that a chord of its western arc was engulfed by the inner trench (as it may now be called) of the 'fort'; and one point of intersection between these two features is visible at the east side of the vertical section in Fig. 29. The ring-ditch was likewise earlier than all the graves of the eastern cemetery with which it came into contact. $\mathrm{FP}_{5}$, the stonepacked palisade-trench, did not encounter it; and seems rather to have been laid out with some circumspection narrowly to avoid it. That the ring-ditch originally enclosed a mound for which it had provided the material, and that both mound and ditch were still superficially visible when the eastern cemetery came into existence, may be inferred from internal
evidence. The primary filling of the ring-ditch (characteristic section given at the bottom of Fig. 28) consisted of gravelly quick-silt, derived mainly from the interior side, and was overlain by dark humus relatively free from gravel. Hence, the material dug out from the ditch was not returned to it, and is likely to have been made into a mound. The remaining concavity in the surface of the ditch was filled up with gravelly ploughsoil; which, since it completely obscured graves of the eastern cemetery whose outlines were plainly visible once the surface of the underlying dark humus had been exposed, was evidently of relatively modern deposition. It is extremely probable, therefore, that the mound and its ditch remained to some extent visible at least until the occupation of the site came to an end. This is confirmed by the shallowness of $\mathrm{FP}_{4}$ where it crossed the circular area enclosed by the ring-ditch. At the centre of the area, near Grave BXI, it was scarcely visible; i.e., its depth decreased in direct proportion to its distance from the centre-point. This is precisely the effect which might be expected to remain from the cutting of a shallow feature of this kind over a low, pre-existing mound, after the mound itself had been removed by ploughing in later times.

The eastern ring-ditch, then, may be presumed to have enclosed a mound, and the whole in all respects to have been, or to have resembled, a round-barrow; but though special search was made for a burial-pit, no obvious candidate was found. Pit BX was suspected, at the outset, of being this feature; but considerable difficulties would attend its identification as such, from the nature of its internal evidences (described in (i) above). Three of the consecutive events they imply must be taken into account in the present context: (i) the


Fig. 35. Area B. Plan of Grave $\mathrm{BZ}_{5} 6$, showing iron beit-fittings, knife and 'purse-mount' (see also Fig. 87). Outline of skeleton built up from discontinuous, powdery traces.
post and the bones (animal or human) were set in the pit, and the clay filling was packed into place; (2) Grave BXI was dug partly into the filling of the pit; (3) the original post was removed and a new one was substituted, with but slight disturbance of the fillings of the pit and the inhumation-grave, in exactly the same position. The first post's duration sets the maximum period of time that these events could reasonably be thought to cover.

In those circumstances, to assume that Pit BX represents the primary burial-pit of the barrow, would be to subsume either that the barrow was but a few decades earlier than Grave BXI or that the earlier post itself had been inserted into the pre-existing pit-filling without leaving any trace of this process. The former alternative would compress the entire history of the 'fort' into a similar span, which seems absurd. But the latter would require the earlier post to have been driven accurately into the centre of a pre-existing pit which by then had been concealed by an overlying mound; and since the chance of this happening accidentally is so remote, it implies further either that the pit's position was already marked in some way or that it was sought and exposed by excavation. Thus, in any way to argue that Pit BX was contemporary with the barrow is to involve elaborate series of assumptions out of all proportion to the available evidence.

It is certainly more economical, and as consistent with the known data, to take the eastern ring-ditch and its inferred mound at their face value, to attribute them to a considerably earlier period than the 'fort' or Great Enclosure and the inhumation-graves of the Eastern Cemetery, and to accept Pit BX as a later, intrusive, feature. It follows from this interpretation that the original barrow-burial was probably laid on the surface of the subsoil and not in a pit, in which case it would certainly have been ploughed away with the mound in which it was incorporated.

On all counts, it is most reasonable to conclude that what is here represented is the deliberate siting of a free-standing post, BX, on the small mound of a considerably earlier round-barrow. It must be noted that in all the early phases of the 'fort' the barrow is respected: the palisades are carefully laid out around it, and its presence seems even, to some extent, to have determined the shape of the Enclosure over a long period. Only when the huge foundation-trenches of GE Phase IV were dug (i.e., when A4's eastern enclosure bounded by Palisade 5 - was dispensed with) was the west side of the barrow disturbed; and then the site of Post BX was still left intact. The possible function of that post will be discussed later (in Chapter 5, section H). Here it need merely be observed that the evidence shows it to have been in place when Grave AX was put at the door of Building A4, and that the setting-out of both Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ seems to have reference to it. Grave $\mathrm{BXI}_{\mathrm{r}}$, perhaps more or less contemporary with Grave AX, was laid at its foot, and the position of Post BX appears likely to have determined the northern boundary of the fenced cemetery.

## Area BG: The Entrange-Works of the Great Englosure (plan, Fig. ${ }^{6}$ )

As will be seen from the air-photograph in Plate 3, the main gate of the Enclosure was flanked on either side by a circular ditch or trench. It will be noticed that the western circle (and of that, the western half) is the more clearly visible in this air-view of 1949, the eastern
works being indicated by faint - though definite - variations in an area of light tone. Comparison of the air-photograph with the contoured plan in Fig. 12 will show that the areas of lightest tone in the former correspond with the steepest slopes surrounding the plateau on top of the whaleback. In these areas, repeated ploughing had allowed natural forces full play, and denudation was severe. The north side of the 'fort', poised on the edge of a bluff, is indicated in the air-photograph so faintly, and against so light a background, that even then, in 1949, its remains must already have suffered serious erosion. In 1951, a land-slip led to the washing away of topsoil and virgin sand from an extensive area, of which the centre seems to have lain towards the west side of the eastern circle. ${ }^{62}$

In the course of the investigation, a large area, covering the former site of the eastern circle, was delicately shaved down horizontally in a series of thin levels (never more than r inch thick). Several days were allowed to elapse after each successive level was exposed, to allow suitably prolonged observation of its reactions to various weather conditions; but only at one point, roughly S.S.E. of the estimated centre, did a faint, curving discoloration of the sand remain to represent the arc of the circle. This indication was but 4 feet long and io inches wide, and was so subtly differentiated that the writer concluded that it was composed merely of stained but intact subsoil. In vertical transverse section, it had no sharp lower limit, but faded away indefinitely. Whether or not this feature represented, as the writer believes, the subsoil that formerly had immediately underlain a ditch or trench, of which all direct evidence had been removed, it is clear that the eastern circle was destroyed by the processes of erosion that have been described. This point is confirmed by the evidence that follows.

The western circle had been severely damaged, but only partially destroyed. S.W. of its centre enough survived to show that it had been defined by a trench of the same character as the inner trench of the fort's enceinte in Phase IV, with two parallel slots at its base; but even so it was evident that the upper levels had been removed to a depth of 24 to 30 inches. The beds of the slots were approximately horizontal, whereas the modern ground surface steadily fell away to the east and north; so that in vertical section on a S.W.-N.E. diameter these two planes converged at an angle of about $10^{\circ}$, merging a little to the N.E. of the centre-point. Most of that part of the circle that lay N.E. of a S.E.-N.W. diameter had been destroyed. The total absence of any trace of the trench at a point on the circle's circumference, S.E. by S. from the calculated centre, may indicate that an original intermission there marked a gateway.

Within the surviving S.W. half of the circle, foundation-trenches were found to define the N.W. corner, the west side and part of the south side of a rectangular timber building (Building BC). The S.W. corner-pit survived as a feature about 20 inches deep, and the immediately adjacent sections of the west and south wall-trenches retained roughly 12 inches of their depth. The foundations of this building had been subject to erosion to the same extent and degree as the circle, and it is estimated that its wall-trenches were originally of the order of 36 to 42 inches deep. The width of the building, from north wall to south wall, was approximately 23 feet, corresponding with that of Building $\operatorname{Ar}(\mathrm{a})$. Similar correspondence in length with $\mathrm{Ar}_{\mathrm{I}}$ (a) would have set Building BC into symmetry with the enclosing circle. Such traces of individual wall-timbers as could be recovered indicated that they were very closely similar in size and disposition to those of Building $\operatorname{Ar}(\mathrm{a})$.


Fig. 36. Area BC. Plan of W. circle of Great Enclosure's entrance-works, showing remains of Building BC and extent of total destruction by erosion.

Charcoal and small pieces of burned daub occurred in the wall-line at the west end of Building BC, which, hence, had been demolished after fire had damaged it or a neighbouring structure. There was no sign of its having been rebuilt.

Fire-reddened pebbles, and soil containing many fine particles of charcoal and baked clay (probably daub), occurred at the highest surviving level of the circular trench, in a fragmentary band broader than the basal timber-line of the inner slot but significantly aligned with it. This was consistent, as far as it went, with a trough or narrow pit having been dug for the extraction of some of the timbers; but as its remaining length was under 3 feet, and its greatest vertical thickness little over 3 inches, it served reliably to show only that burned material lay on the ground surface when this one section of the timberwork of the circle was either repaired or demolished. This small survival would not, in isolation, be a sufficient basis for generalization as to the fate of the whole circle; but when the evidences from the two structures are considered in association, there is hardly room for doubt that Building BC stood at the same time as the circular entrance-work; and that both were demolished as the result of the same fire.

The great size of the eastern circle would have allowed it to contain several structures of the same size as Building BC, or one very large building, and the complete destruction of the evidence here is particularly regrettable. The wide separation of the two circles possibly implies the former existence of a gate between them (perhaps multi-leaved, with a wide driving-gate and one or more riding-gates), of which no direct evidence now survives apart from the ambiguous traces recorded by air-photography. Plate 4 certainly indicates that there were structures within the relevant area in more than one period. It shows a dark semi-circle (intersecting with the west side of the large, eastern circle) that could be representative of an earlier and smaller entrance of the same kind; and other, more diffuse, curving indications hint at the former presence of further complexities, now beyond all possibility of investigation.

## Area $\mathrm{C}:$ : The Eqhelon of Northern Buildings (Plates $55^{-7} 73$ and Figs. $37^{-40}$, inclusive)

Buildings $\mathrm{Cr}_{\mathrm{r}}-4$, which are now to be described, are held to form a contemporary group. Fig. 64 shows that a straight N.W.-S.E. line, drawn from the south-east corner of Building Ci to the north-east corner of the main hall of Building $A_{3}$, unites them. This must represent an original setting-out line.

Building Ci (plan and section, Fig. 37) was represented by a rectangular pit (Plates 55 and 56), which may be likened to an emplacement for a water-tank or cistern. Its filling consisted of three main elements: at the top, a shallow lens of recent ploughsoil; below that, a series of layers of artificial filling, composed mainly of black earth with many fragments of rock, charcoal and burned clay; and a basal layer, consisting almost entirely of burned clay and charcoal, covering solid balks of charcoal (representing collapsed timbers) which rested almost directly on the original floor of the building (Plate 57).

The distribution of the contents of the basal layer is of particular significance. On the building's floor there was a film of white ash, in which small twigs and pieces of straw or reeds could be recognized. This was thickest in the north-eastern quarter of the building and


Fig. 37. Area C. Plan and section of Building Cr.
was hardly perceptible in the north-west. Overlying it was a spread of burned clay and twigs, which was resolved into three layers underneath the large balks of charcoal: a thin and discontinuous layer of reddened clay immediately underlying the lower faces of the balks; a pulpy layer of charcoal consisting mainly if not wholly of twigs; and a further, less reddened, layer of clay. A purplish-black, greasy deposit, occasionally attaining a thickness of I inch, in which more extensive remains of twigs occurred, directly overlay the charcoal balks. Hollows in its upper surface were partially filled with an amorphous, greyish-white substance resembling wood-ash, which was noticed to lie thickest on the west and south-west sides of each pocket.

Sufficient of the building's wooden structure remained in situ to show the principle on which it had been built (Plate $5_{5} 6$ ). At the bottom of the rectangular pit a series of planks set on edge, like skirting-boards, formed a stretcher-shaped framework. The north and south sides of the framework, extending to the eastern and western basal limits of the pit, had been emplaced first. A cross-plank, wedged between them at either end, had held the whole rigidly in compression. The addition of inner planks, parallel to the first series, had formed slots extending along at least three sides: these were 2 to 3 inches wide internally, and as found were filled with jumbled remains of clay and charcoal. The rectangular area bounded by these vertical planks was covered with a floor of well-prepared clay. Externally, the slots were flanked by horizontal planks (Plate 58 ), of which the inner edges had been more consistently preserved as charcoal than the outer. Between these and the sides of the pit were retaining-posts at varying intervals. At the surface-level outside the pit, the north and south sides of the building were flanked by series of widely separated post-holes.

It is certain that the large balks of charcoal on the floor of the building represent the fallen timbers of its north wall, and that the crushed clay and twigs underlying them are the remains of an internal screen or facing of wattle-and-daub. It appears most likely that the wattle-and-daub lining was set in the slots behind the 'skirting-boards', and that the vertical wall-timbers rested on the horizontal planks. Those last, as was noticed above, were more consistently burned inside than outside, and the presence of external packing-soil seems satisfactorily to account for this phenomenon. The post-holes at the surface level outside the walls of the building are thought to represent the lower ends of rafters set directly into the ground.

The evidence as a whole suggests that the north-east corner of this building caught fire first, and that here the deposit of white ash resulted from the burning of roof-thatch. It is most likely that the upper ends of the rafters, or the ridge-pole itself, then gave way; and that the north wall fell inwards on to the floor, underneath the remains of the roof. Such a sequence of events would account for these wall-timbers having been burned uniformly, as in a smother-kiln, to charcoal; whereas in different circumstances otherwise they, too, would have been reduced partly to white ash. The direction of their collapse and reddening of the subsoil edges on the west and south sides of the building combine to indicate that a northerly wind was blowing at the time.

The charcoal balks are thought to approximate fairly closely to the original dimensions of the timbers. In section, they averaged $7 \frac{3}{4}$ inches $\times 3$ inches, and three which were particularly well preserved were all within an inch of $4 \frac{1}{2}$ feet in length. Another, possibly a rafter, was 7 feet 8 inches long, with a notch (certainly original) near its southern end.

A feature of some interest was the cleanness of the building's floor beneath the burned
debris. There were signs of wear and patching along a line roughly 18 inches from and parallel to the long axis; but there was no extraneous matter in or below the clay. The floor rested on clean, undisturbed natural sand. The one object indicative of the building's use was a broken loom-weight (L2, Fig. 86), which was found against the outer edge of the horizontal plank along the north wall of the building.

Almost immediately after the charcoal blocks had been exposed, they were destroyed overnight. A vandal removed the planks and tarpaulins that protected them from the hard night frost, and most of what survived his prisings-up and hobnailed tramplings was frozen and disintegrated. Fortunately some interim photographs had been taken; but, as is obvious from the plates, the mist and bad light of the late afternoon seriously reduced their quality.

Building C2 (Plates 59-63) is sufficiently displayed by the diagrammatic plan (Fig. 38) and the sections (Fig. $40(\mathrm{I}-4)$ ) to remove the necessity for detailed description; but attention should be drawn to several points.

This building was certainly abandoned and demolished before Building $\mathrm{C}_{3}$, below, came to the end of its useful life; since a ditch originating at the north side of $\mathrm{C}_{3}$ (and clearly serving it) had been cut across the width of C 2 (Plate 59), removing the upper traces of the eastern and western jambs, respectively, of its south and north doors. The silting-pattern of the ditch indicated that a bank of upcast from its making closely flanked the western side of the new drainage-channel. The ditch had been cleaned out at least once.

Building C 2 showed no trace of fire whatsoever; nor did it appear to have undergone any major repair, save for the replacement of one post close to the S.E. corner (Fig. $4^{\circ}$ (4)). Of the wall-timbers which had left their impress in the foundation-trenches (Plate 62), most were from 14 to $16 \frac{3}{4}$ inches in width, and from 4 to $4 \frac{1}{2}$ inches in thickness. They were usually separated by intervals of from $5 \frac{1}{2}$ to 6 inches. In two aligned internal slots, which almost certainly represent an eastern partition, the traces were confused; but there is no doubt that they held consecutive, vertical timbers. The building had four doors, and the purposefully asymmetrical setting of the east and, particularly, the west doorways should be noticed. The misalignment of the southern row of external posts cannot be explained convincingly. The northern series appears to be duplicated, but there was no evidence to show whether or not all these post-holes were contemporary.

Building $\mathrm{C}_{3}$ (Plates $64^{-68}$ ) will be seen from the plan in Fig. $3^{8}$ to have been of unusual construction. All four sides were flanked by double rows of external post-holes, which appeared uniformly to have held vertical posts. Although the subsoil in this area had been subject to natural induration, and gave unmistakably sharp definition to all the artificial features cut into it, prolonged search revealed no trace of post-holes within the building. A slight looseness of the subsoil occurred at a point midway along the long axis of the building; but it is exceedingly doubtful whether it has any significance, and, but for its position, it would have been dismissed as a geological anomaly.

In this building, again, the door in the west wall was asymmetrically placed, so that its southern jamb stood slightly to the north of the middle point of the wall.

The remains of this building provided a demonstration of the efficiency with which its wall-timbers had been extracted. The wall-line, and even a large number of its individual
timbers, could be seen clearly in the primary horizontal section (Plates 64,65 and 66), and there was but exiguous trace of a demolition-trough (sections: Fig. 40 (5-9) ); yet dissection showed that all the timbers had been withdrawn. In most cases, the fillings of their sockets contained large stones and fragments of bone ${ }^{63}$ athwart the former line of the post, and particles of daub and charcoal further suggested that the humus in the sockets was derived from occupation levels on the surface. A few scraps of hand-made pottery stratified in the abandoned timber-sockets were of the class represented in Fig. 82, but are too small to be illustrated. The exceptional (wheel-made?) sherd shown as Fig. 85 (2), occurred in a postsocket of C 3 's N . wall, and another closely similar was found in the filling of the ditch running from $\mathrm{C}_{3}$ across the site of $\mathrm{C}_{2}$.

A curious feature was a consistent difference in the composition of the trench-fillings on either side of the wall-line of C3. Outside the wall, the filling was almost entirely of pure sand and gravel, and dried quickly; whereas, inside, humus was admixed to a sufficient extent to delay drying considerably (Plate 66). When this phenomenon was first observed, in the primary horizontal section, it was thought possibly to indicate re-exposure of the inner faces of the walls for some work of repair or reinforcement; but this hypothesis was found to be untenable when the trench-fillings were dissected. The true explanation of this division of the filling seems simply to be that the builders were methodical in digging the trenches, and that (in order to avoid later having to carry soil in and out of the half-completed building) they threw the upper half of the spoil from the trench inward and the lower half outward. Thus, as was the case, clean subsoil would have been back-filled on the outer side of each wall, while soil containing humus would be returned on the inside. ${ }^{64}$

Traces of later repairs were found, none the less. Additional vertical posts had been inserted alternately against the inner and outer faces of the walls, and the holes dug for their emplacement were cut into both the inner and outer fillings described in the preceding paragraph. Hence, those fillings were indeed already in place when the work of reinforcement was carried out.

The original wall-timbers were predominantly II to 12 inches wide and $3 \frac{1}{2}$ to 4 inches thick (Plate 67).

The ditch, noticed previously as crossing the site of the abandoned Building $\mathrm{C}_{2}$, was found to originate beside the north wall of Building $\mathrm{C}_{3}$. It issued southward from a bowlshaped pit, in which a thin, dark, basal deposit was overlain by soil containing fragments of burned daub and charcoal. The pit was curiously irregular in shape, as though it had stood open for a long period and had been repeatedly cleaned out. The southward deepening and widening of the ditch (Plate 63), and the condition of its lower filling, showed that it had served as a drain, discharging some kind of effluence over the brow of the whaleback's north side. There was no sign of industrial debris, and it seems possible that the pit and the ditch represent a latrine.

Building $\mathrm{C}_{4}$ (Plates 69-73) was the largest hall in this group. Two structural phases were distinguished, $\mathrm{C}_{4}(\mathrm{a})$ and $\mathrm{C}_{4}(\mathrm{~b})$, of which the former is represented in Fig. 39, and the latter in Fig. 38. Vertical sections are given as Fig. 40 ( $10-19$ ).
Building $C_{4}(b)$ was a hall with an asymmetrically placed west door which gave into a western annexe. The slight bowing of the walls, in plan, is probably due to the comparative lightness


Fig. 40. Area C. Representative vertical sections of Buildings $\mathrm{C}_{2}-4$ inclusive. (1) C 2 , N. wall. (2) $\mathrm{C} 2, \mathrm{~W}$. wall near N.W. corner. (3) Ditch cut across site of C2. (4) C2, diagonal section, S.E. corner. (5) C3, N. wall. (6) $\mathrm{C}_{3}, \mathrm{~S}$. wall. (7) $\mathrm{C}_{3}, \mathrm{~S}$. wall. (8) $\mathrm{C}_{3}$, W. wall. (9) $\mathrm{C}_{3}$, E. wall. (10) $\mathrm{C}_{4}$, N. wall. (11) $\mathrm{C}_{4}$, N. wall. (12) $\mathrm{C}_{4}$, N. wall, N.W. corner. (13) $\mathrm{C}_{4}$, N. wall. (14) $\mathrm{C}_{4}$ annexe, N. wall. (15) $\mathrm{C}_{4}$, W. wall at junction with N. wall of annexe (left). (I6) C4, E. wall near S.E. corner. (I7) C4, E. wall, N.E. corner. (I8) C4, E. wall. (19) $\mathrm{C}_{4}$, S. wall near S.E. corner.
and flexibility of the materials used in their construction; for the wall-line was rarely more than $\frac{3}{4}$ to 2 inches in thickness (Plate 71 ), and could be seen in several places to have been composed of unusually thin and narrow planks. The lower ends of nearly all of these planks were $V$-shaped in side section, and many showed deliberate charring; and most appeared to have been partly driven into the sockets of earlier timbers which had been withdrawn. In several cases they had certainly been driven down beside earlier, thicker timbers; but it could not be determined, of course, whether the earlier timbers had at that time remained intact above ground, and it is possible that only their buried stumps then survived. However this may be, $\mathrm{C}_{4}$ (b) was a notably flimsy structure: it was essentially a series of screens supported by a minimal number of heavy timbers, including a row of deeply founded ridge-posts along the long axis. Extensive horizontal spreads and vertical penetrations of unburned daub in the upper levels of the trenches suggest that the walls were made more substantial by a thick casing of that material. In the end, the building had been left to rot, and it showed no sign of fire.

Building $C_{4}(a)$, on the other hand, had obviously been damaged or partially destroyed by fire. Burnt materials were present in all the disturbances of the soil caused by reconstruction; but, as these disturbances were seldom deep or wide (save where new structural uprights for $\mathrm{C}_{4}(\mathrm{~b})$ 's framework had been inserted), enough remained of the earlier trench-fillings to show an original longitudinal division into two distinct sections (Plate 72). As in Building C3, the filling outside the wall had been of clean subsoil, whereas inside the wall there was slightly darker soil in which humus was present. As in $\mathrm{A}_{3}(\mathrm{a})$, the distribution of the most intensely burnt material indicated that the fire had developed from N.E. to S.W.

The western annexe of Building $\mathrm{C}_{4}(\mathrm{a})$ had been built after the walls of the main hall stood complete (Fig. 40 (15)); but this is a natural structural sequence, and does not necessarily imply that the annexe was an afterthought. The fillings of repair-pits in the west wall of the annexe and in those forming the main body of the hall (notably on the south side of the west door), were breached during the later reconstruction, indicating that both parts of the building had stood for some time before the fire. The original wall-timbers were uniformly $3 \frac{3}{4}$ to 4 inches thick (Plate 70) in both hall and annexe. The vertical transition from a continuous to a discontinuous wall-line appeared to take place at an unusually low level; but the traces of the original timbers had been blurred by the skewing (along the line of the wall) of each member in the course of its removal. Consequently the basal widths of the timbers could not be ascertained with the same precision as their thicknesses; but a width of II or 12 inches (as in $\mathrm{C}_{3}$ ) was found to be consistent with all the indications that remained.
$\mathrm{C}_{4}$ (a) was, indeed, constructionally akin to $\mathrm{C}_{3}$, which evidently was a lesser building of the same phase; but the techniques used in $\mathrm{C}_{4}$ (a)'s demolition, and in the construction of its successor, are so unusual as to require further consideration. First, there is suspicion that enough of $\mathrm{C}_{4}(\mathrm{a})$ 's eastern half remained standing, after the fire, to allow of piecemeal demolition and reconstruction; and the canting of the timbers during their extraction could be indicative of a massive wall-plate's survival. Some major posts were renewed, certainly, but here and there it was evident that at least the stumps of some original timbers had been left in place to rot. For the rest, it was clear that thin planks had been eased into the open
channels left by removal of $\mathrm{C}_{4}$ (a)'s sturdier wall-timbers. All would be consistent with a sequence of events such as the following:
(I) Building $\mathrm{C}_{4}(\mathrm{a})$, like several other patently contemporary structures, was subject to a fire that clearly began at its N.E. corner and was increasingly destructive as it spread south-westward.
(2) For some unexplained reason, $\mathrm{C}_{4}$ (a) survived the fire better than its fellows and/or was picked on as the subject for immediate patching-up.
(3) What survived of its structural framework was conserved, reinforced and made good.
(4) At the same time, most of the original wall-timbers - luxuriously thick and, at a pinch, dispensable in a short-term, structural view - were removed, to be replaced immediately by thin planks that (liberally daubed) would serve to keep out the weather for a few, foreseeable years.

In that interpretation, the moment of transition from $\mathrm{C}_{4}(\mathrm{a})$ to $\mathrm{C}_{4}(\mathrm{~b})$ is one that cannot be without special meaning in the history of Yeavering. If this is a true reckoning, the change betokens the end of a long period in which Yeavering's architectural development grew from assurance of a lavish supply of massive oaken logs . . . and from the ambitious certainty of an age that saw Yeavering as a good, long-term investment. Why were so many of $\mathrm{C}_{4}$ (a)'s surviving timbers drawn from the ground - when $\mathrm{C}_{4}(\mathrm{~b})$ shows there was care for the structure's perpetuation - if not cannibalistically to supply the deficiencies brought about by a sudden check in the supply of timber?

Locally, at all events, a similar change is to be seen between Buildings $\mathrm{A}_{3}(\mathrm{a})$ and $\mathrm{A}_{3}(\mathrm{~b})$; though there the presence of clinch-nails indicates a more leisurely, considered and purposeful solution to the problem. Here certainly there is one extreme of an antithesis that must at a later stage be put more fully into perspective: between buildings - such as A2 and A4that were conceived of in terms of load-bearing timber walls, on the one hand, and such structures as $\mathrm{C}_{4}(\mathrm{~b})$ as show reversion to the older and more economical idea of post-andpanel construction.

Among various crumbs of the type of pottery represented in Figs. 8i and 82, one sherd from $\mathrm{C}_{4}$ (a) alone merits illustration (as in Fig. 82 (Io)).

## Area D: The Western Range of Buildings and the Western Cemetery (Plates $74-89$, Figs. $4{ }^{1-56}$ )

Among the buildings of this group were the only three examples of north-south orientation on the site. These will be described first.

Building Di (plan, Fig. $4^{2}$ ), from the strange incompetence of its initial construction, might well have been a first, bungling essay in the large-scale use of an unfamiliar technique. Two structural phases were strikingly evident, the earlier of which will be called $\mathrm{D}_{\mathrm{I}}(\mathrm{a})$ and the later $\mathrm{D}_{\mathrm{I}}(\mathrm{b})$. Ploughing had caused particularly severe damage to the north-western parts of both.

Building $D_{I}(a)$, though clearly intended to be rectangular in plan, was rhomboidal (Plate 78 ). The foundation-trenches of the short walls at its north and south ends were set obliquely to
the parallel side walls, and were presumably laid out by eye. They were rarely more than 6 inches deep from the existing surface of the subsoil; although, in the north trench particularly, irregular holes (post-holes damaged during demolition ?) extended to greater depths. The trenches of the long walls varied between 8 and io inches deep; but, in the middle of each, two door-posts (partly cut away by those of $\mathrm{Dr}(\mathrm{b})$ ) had been dug 8 to io inches deeper. Diffuse traces indicated that large timbers had been emplaced in these shallow trenches (Plate 75) ; but there is no reason for supposing any great interval to have elapsed before the structure collapsed or was pulled down.

In Building $D_{I}(b)$ the most obvious imperfections of its predecessor were rectified, save that lateral misalignment still persisted in the roof-posts. This building was ultimately burned down (like D2, from S.W. to N.E.), and its timber-sockets were distinguished from the earlier series by the black soil, charcoal and hard-baked fragments of daub with which they were filled.

The foundation-trenches of $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$, though deeper than those of its predecessor, were still surprisingly shallow for the large wall-timbers they had carried (Plates 75, 76, 77), and were somewhat rounded in cross-section. In the course of excavation, special consideration was given to the possibility that the post-impressions had been distorted and enlarged in the course of the building's demolition. Many of the impressions found could indeed be seen to have been subject to lateral exaggeration; but, after careful examination, over a dozen of the smallest impressions were found to satisfy the critical requirements. All were rectangular, and all measured between 14 and $14 \frac{1}{2}$ inches in width and 7 to $7 \frac{1}{2}$ inches in thickness.

The wavering lines of the walls of this building point to an incomplete mastery of the form and techniques involved. The shallowness of the foundation-trenches must be held partly responsible for this characteristic; but the close setting of the posts as seen on the bottoms of the trenches strongly suggests that they were merely packed together in palisade fashion, as opposed to the sophisticated technique evident in other buildings (e.g., Buildings $\mathrm{A}_{3}$ and $\mathrm{A}_{4}$ ). An outstandingly important feature of $\mathrm{D}_{\mathrm{I}}$ is the presence of two posts for direct support of the roof-ridge, a distinction it shares only with $\mathrm{D}_{2}(\mathrm{a})$ and $\mathrm{D}_{3}$.

Building $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ had only two doors, one in the middle of each long wall. The south jambpit of the east door contained a large boulder, which appeared not to have been significantly displaced when the post was removed during demolition. Beneath the western edge of the boulder lay two sherds of a pottery bowl (YAS, Fig. 84) : larger and more numerous fragments of the same vessel had spilled into $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ 's demolition-material. This pottery is of special importance, and it should be stressed that its context shows it at least as likely to have been derived from the occupation of Building $\mathrm{D}_{\mathrm{I}}(\mathrm{a})$ as from that of $\mathrm{Dr}_{\mathrm{r}}(\mathrm{b})$ itself. Other timber-sockets of $\operatorname{Dr}(\mathrm{b})$ yielded fourteen sherds of the crude ware characteristic of Buildings AI-4, but of these only eleven merit illustration (Fig. 82 ( I )).

A short, straight length of palisade-trench flanked the south end of this building (Figs. 41, $4^{2}$ and Plate 74). Large, blackened post-holes were conspicuous within it, two apparently marking a gate or doorway in the middle of the feature. This is interpreted as a post-andwattle screen between Buildings $\mathrm{Dr}(\mathrm{b})$ and $\mathrm{D} 2(\mathrm{~b})$, and possibly between their predecessors. A range of large post-holes, immediately to the south of the 'screen', yielded a few scattered traces of charcoal, but no positive indication of actual contact with fire.

Building D2 (plans, Figs. 43 and 44) likewise manifested two structural phases, D2(a) and $\mathrm{D}_{2}(\mathrm{~b})$; the distinction between which was not obvious in a general view of the primary horizontal section (Plate 79), but became evident at an early stage in the dissection of the trench-fillings (Plate 80 and Fig. 45).
Building $D_{2}(a)$ had evidently been the exact counterpart of Building $\operatorname{Dr}(\mathrm{b})$ in size, form and orientation; and the precise alignment of the two buildings makes it extremely probable that there was a period of co-existence between them. Later events had mutilated both the fillings and the beds of its trenches in many places, but enough remained intact for three observations to be made with confidence: first, that the trenches representing $\mathrm{D}_{2}$ (a) were certainly earlier than those of Dr (b) (Plate 80); secondly that heavy timbers had stood within them; and, thirdly, that there was no evidence whatsoever to suggest that Dz (a) had ever been damaged by fire. As in $\mathrm{DI}_{\mathrm{I}}$, there was a post just inside the middle point of each end-wall, for support of the ridge.

At the south side of the eastern door, the foundation-trench had breached a Bronze-age cist which had contained an urn and a jet necklace (Appendix III). A trail of disc-shaped spacer-beads, leading southwards for several yards from the point of intrusion, suggested that the digger of the trench had run off to show a handful of his small-finds to other workmen on the site.

Building $D_{2}(b)$ was massive and elaborate in its construction. It was remarkable too for the diversity of the features associated with it. As has already been demonstrated (p. 43), there was striking evidence that it had been demolished after devastation by a fire kindled at its S.W. corner while a south-westerly wind was blowing.

Its square-cut foundation-trenches were on average 33 inches deep from the subsoil surface. They showed unmistakable respect for the trenches of Building $\mathrm{D}_{2}(\mathrm{a})$, never trespassing into the wall-lines of the earlier structure, and conformed so closely to the original even in their irregularities as to indicate that they were dug while the earlier walls were still standing (Fig. 43 and Plate 8ı). Moreover, stratigraphical evidence showed that the timbers of Building D2(a) were certainly removed at the same time as those of its 'successor': the wall-sockets of both buildings were marked by intrusions of burned debris, and locally (where the balk dividing the two trenches was exceptionally low and narrow) the deposit was found to flow continuously from one to the other. Moreover, the packing-soil of all the trenches was uniformly clean.

The demolition-trough and many of the sockets of the withdrawn timbers of $\mathrm{D}_{2}(\mathrm{~b})$, by reason of their greater depths, were the more heavily engorged with burned daub and charcoal (Plate 80). Much of the daub was vitrified, and occurred frequently in large, fused masses with surfaces that had oozed and bubbled in the molten state. The less metamorphosed fragments were divisible into two classes. There were first those with smooth, original, outer faces and corrugated backings representing the rendering of an exposed face of wattlework. Secondly there were fragments similarly showing a well-finished outer face but with the opposed face also smooth (although coarser in texture), more strictly flattened, and interrupted by sharp, widely spaced ridges at right-angles to the main corrugations on the reverse: features which are indicative of the material having been plastered over the faces of vertical timbers.

No fragment of the second class was large enough to present two parallel ridges, but the largest surviving pieces (of which the best-preserved appears in Fig. 93) showed that they must have been over io inches apart. It was evident that the flat surfaces represented the faces of consecutive squared timbers, and the ridges the crevices between them (usually $\frac{1}{4}$ inch wide, and only occasionally as much as $\frac{1}{2}$ inch). The first confirmed that the wall-timbers were continuous above ground-level; the second, that the standard of carpentry was painstakingly good. As the remains of a line of stake-holes were found flanking the inside of each wall, the two types of daub-fragments must signify that internally the building was lined with a rendered wattle screen, and that externally its walls were directly rendered. Holes in two fragments of daub (Fig. 93) suggest that nails were driven into the outer surfaces to provide a key for this facing.

The original packing-soil remaining at the lowest levels of the foundation-trenches yielded precise indications of many of the wall-timbers (Plate 81). They were subject to little variation in size, ranging from 7 to 8 inches in thickness and from 14 to $I_{5}$ inches in width; but the distances between them were slightly less regular, varying from 8 to 12 inches. At a higher level, immediately below the demolition-trough, unbroken series of imprecise indications of the same thickness locally testified to the former continuity of the upper part of the wall-line.

Five extremely large pits issuing from the outer side of the north wall-trench were shown by well-defined basal impressions to have contained heavy posts. From the characteristic disruption of both sockets and packing-soil it was evident that the posts had been inclined towards the wall, like the similarly large buttresses of Building A4. In each case, two or three impressions of the same rectangular timber-end, one below another, were observed in the collapsed filling. This phenomenon was found to be an effect of the method used in the extraction of these particular posts: ${ }^{65}$ it was later observed in the buttress-pits of $\mathrm{A}_{4}$, but only rarely was anything akin to it to be seen in the refilled sockets of originally vertical wall-posts that had been withdrawn. Demolition had confused the uppermost soil-indications between these buttress-pits and the north wall, and it could not be determined whether or not the buttresses were original features of $\mathrm{D}_{2}$ (b) or (as may be suspected) additions or replacements. Regular series of smaller buttress-pits, more confidently to be accepted as original, lined the east and west walls.

There were two doorways, one in the middle of each long wall, to which the surviving doorways of $\mathrm{D}_{2}(\mathrm{a})$ gave what were in effect inner portals. This perhaps explains why the door-jambs of $\mathrm{D}_{2}(\mathrm{~b})$, unlike all others on the site, were set across the line of the wall (in the same fashion as the terminal posts of Building E). Each doorway was spanned by a threshold beam, supported by wooden piles which were left to rot in situ.

It remains to describe some features associated with Building $\mathrm{D}_{2}$ that are possibly significant of its character and use. The total absence of pottery and all other objects indicative of normal domestic use is presumably significant in itself, and there was no general scatter of animal-bones.

Immediately to the north of the east door (Fig. 45, top), the trench-filling had been removed or withheld from the inner face of the original wall of Building $\mathrm{D}_{2}(\mathrm{a})$, to form a pit about 6 feet long, a little over a foot wide, and locally as much as 16 inches deep (i.e., $3^{8}$ inches, measured from the present ground-level). This was entirely filled with animal-bones (Plate 83), the great bulk of which represented oxen (with an overwhelmingly high propor-


Fig. 45. Area D. Buildings $\mathrm{D}_{2}$ (a) and (b). Above, left, diagrammatic plan of bone-stack (ox-skulls) based in pit against inside of $\mathrm{D}_{2}$ (a)'s E . wall, N . of N . jamb-pit: right, diagrammatic section showing laminations in the lower parts of the deposit that survived intact, with distribution of bones scattered from upper deposits during demolition of $\mathrm{D}_{2}$.

Below, vertical sections: (I) N. wall, bisecting middle buttress-pit (right), demonstrating simultaneous demolition of $\mathrm{D}_{2}$ (a) and $\mathrm{D}_{2}(\mathrm{~b})$ after fire. (2) S. wall, close to S.E. corner-pit. [Note: section shows 'intermediate' wall-timber of $\mathrm{D}_{2}$ (b) characteristically lodged well above trench-floor.] (3) S. wall: extreme left, internal centre-post. (4) E. wall, S . jamb-pits of door. In each case $\mathrm{D} 2(\mathrm{a})$ is seen to the left of $\mathrm{D}_{2}(\mathrm{~b})$, and the darkest tones represent deposits containing charcoal and burnt daub.
tion of skulls, see Appendix I). In the less disturbed levels, separate deposits could be recognized, during dissection, by reference to the presence of thin laminae of blown sand at fairly regular intervals. This stratification was hardly visible in vertical section, owing to the nature of the materials involved; but the fine, dry films of sand, and the unusually slight degree of interlocking between the bones above and below these points, were a sure guide to the touch. Nine successive deposits were recognized at the western side of the pit, where a small portion of its filling had remained undisturbed. It was clear that when the timbers of the building were uprooted, the contents of the eastern part of the pit had collapsed into the demolition-trough and the newly vacated timber-sockets of $\mathrm{D}_{2}$ (a) and (b). Here alone were the intrusive deposits in the foundation-trenches of $\mathrm{D}_{2}$ accompanied by bone. The total volume of bones recovered exceeded the below-ground capacity of the pit and, as all but the lowest of the layers observed in the small intact portion of the bone-pit sloped upward from west to east, it seems probable that over a period of time the mounting deposits of skulls and bones had been stacked up vertically against the wall of the building.

Three laterally aligned post-holes in the southern part of the building's interior were unusual in that they were packed with large stones. They are most likely to represent structures removed before the fire because they themselves contained no trace of it other than a thin, horizontal lens of disintegrated charcoal overlying the fillings of their sockets. The question of their relative date and function nevertheless remains open, as they do not appear to have played a structural part in the building and are peculiar to D2. The sockets of the roofposts were densely packed with charcoal.

Outside the north-west corner of the building (Fig. 43) was a pit 4 feet deep, in which a post 22 to 23 inches square had been emplaced. The pit's filling was abnormally clayey, and lumps of pure boulder-clay occurred near its base. The post was represented by a rectangular prism of even, loamy soil differing very little in tone from the filling around it, but distinguished from it by evenness of texture and freedom from gravel. The post appeared never to have been withdrawn, but to have rotted in situ. A few flecks of charcoal, one small piece of burned daub, and crushed remains of several animal-teeth (probably sheep/goat), were found on the top surviving level of the pit; which otherwise yielded no finds. There were many stake-holes around the pit and some occurred in the surface of its filling. All were found to represent thin posts with pointed ends that had been driven into the ground.

South of the pit, on the west side of $\mathrm{D}_{2}(\mathrm{~b})$, was a complex of post- and stake-holes, analysed in Fig. 46 (b). One related series of holes (A) was readily distinguished from the rest by particles of charcoal and burned daub in the fillings, and another (B) was characterized by fillings almost exclusively of pink clay (probably daub) : both were aligned with Building D2. Series (C) was isolated by reference to the consistently large size, bowl-shaped section and clean, sandy filling of the post-holes. Series (D) was made up of holes containing darker sand in which humus was present. Series (E) was not recognized on the ground: it represents merely a possible interpretation of the residue of post-holes left by elimination of Series (A) to (D), but it may nevertheless be significant. However, it is certain that at least four successive huts, probably with wattle walls, stood on this spot. If the destruction of the latest, (A), is (as the writer believes) to be associated with the burning of Building $\mathrm{D}_{2}(\mathrm{~b})$, the flimsiness of these huts is made the more notable by contrast with the solidity of what must have been the parent building. If the need for an out-building had been continuous, it would
(a)

(b)


Fig. 46. Area D. (a) Plan of crouched burial close to Building D2's S.W. corner, showing ox-tooth lying on W. end of grave-floor. (b) $A-E$, plans of successive huts flanking W. side of Building D2, with schematic diagram comparing proportions of $A, B$ and $C$.
surely have been built in a more permanent and sightly form, in keeping with the structure with which it was associated. It is more probable that the need was intermittent, and that each building was put up to fulfil a brief but recurrent need, and was taken down as soon as it had served its immediate purpose. A smaller but similar post-hole complex north of Building D2, and adjacent to the 'screen' that separated it from Dr, is capable of similar interpretation. The rectangular setting of daub- and charcoal-filled post-holes outside the south end of $\mathrm{D}_{2}$, on the other hand, appears not to have been a roofed building. Certainly it cannot be viewed as an extension of $\mathrm{D}_{2}$, foreshadowing the annexes of some of the site's later buildings, as $\mathrm{D}_{2}$ had no end-wall door to give direct access to it. Two of the heavy, apparently successive, posts within it could be taken to represent clumsy attempts to prolong the line of $\mathrm{D}_{2}$ 's ridge, but the lack of major centre- and corner-posts in the external 'walls' gives no support to the idea that this was a lean-to outhouse. All in all, there seems to be no reason for rejection of the simplest interpretation of this structure: the evidence is entirely consistent with its having been a fenced enclosure within which there were free-standing posts - at least one of which (from the presence of fired daub-fragments at the top of its socket) must have been withdrawn after $\mathrm{D}_{2}$ 's destruction.

The Western Cemetery, as a whole, is given separate treatment below (p. 1o8); but its northernmost graves lie in such intimate and significant relationship with Building $\mathrm{D}_{2}$ as to demand notice here. For this particular purpose only the sixteen graves shown in Fig. 43 need be considered. Evidently they were set into place after $\mathrm{D}_{2}$ had been brought into existence, since they so consistently respect the building - are, indeed, grouped around it and appear to centre on it. The fenced enclosure, or rather its contained posts, seems actually to have been the particular point of reference in most instances; but five graves lie in more direct relationship with the south-east corner of $\mathrm{D}_{2}$ itself, which implies that the enclosure did not exist merely for the negative purpose of fending off burials from the vicinity of the building. The absence of burials from the open area on its east side suggests that the enclosure was approached and entered from the east.

Although, as has been remarked, the post-holes defining the enclosure, and one within it, gave clear evidence of demolition after the fire, burned debris was present in only one of the graves: the easternmost, the foot of which had been cut into the filling at the head of an earlier grave. The skeletons had almost vanished; but enough remained (usually only the enamel of the teeth) to show that all the bodies had been laid with their heads to the west, save one in a grave about 7 feet from the S.W. corner of D2. This grave (Fig. 46 (a), Plates 84,85 ) had been cut to the full, extended, length of the exceptionally well-preserved child's skeleton it contained; but the body had been buried in a tightly crouched position with the head to the east, facing southward. Thus, one half of the grave, from a practical point of view, represented wasted labour. The soil filling this grave was most carefully examined in horizontal and vertical section, and found to be quite certainly of one period only. The only feature of its western half was an ox-tooth, which rested directly on the grave-floor. No burial-goods of any kind occurred in the other graves.

[^0]Building $D_{3}$ (plans and sections, Figs. $47^{-5}$, and $5^{6}$ (lower)) was orientated north-south, like $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$, and in its horizontal dimensions was similar to $\mathrm{D}_{\mathrm{I}}(\mathrm{b})$ and $\mathrm{D}_{2}(\mathrm{a})$; but was offset from them, by a comparable building's width, to the west. As will later be shown, the evidence suggests that its siting was determined by reference to the (presumably pre-existing) cemetery on its eastern flank. First, however, $\mathrm{D}_{3}$ and its associated structures will be described, in the following order: (1) the building itself and the circular hut or working-area established after its destruction by fire; (2) the working-hollow at D3's north end and the adjacent pit-complex on its west side; (3) the fence or palisade in which the whole was set, and its relationship to the Western Cemetery.
(I) $\mathrm{D}_{3}$ was a building akin to CI (Fig. 48, cf. Fig. 37) in that its floor had been dug deep into the ground. The plan of its wooden structures closely follows the pattern of $\mathrm{D}_{\mathrm{I}}$, even to the combination of medial ridge-posts and paired aisle-posts; but it was a framed, post-andpanel construction and (although the post-and-panel technique is to be seen in the very small buildings $\mathrm{A}_{5}$ and D 6 ) quite exceptional among the larger buildings of Yeavering.

Its structural history is most readily demonstrated by reference to the sections shown in Figs. 48 and 56, and in Plate 87. At the bottom of the tank-like excavation, in which the whole building was set, was the original clay floor (Floor I). This was irregular in thickness, and intensive use had for the most part reduced the light brown-pink clay of which it was composed to a dirty grey-brown. Evidently, its hardness varied from time to time within its period of use; for while most of the fragments of pottery and bone found on it had been crushed almost into powder and had obviously been trampled underfoot while the surface was dry and unyielding, others close by had been trodden into the clay while it was plastic and so survived more nearly intact. To some extent this may be regarded as a localized effect: clearly the two hearths had kept the immediately surrounding areas drier and firmer than the rest, but the condition of the 'plastic' surfaces nearer the walls shows that the builders of this kitchen-like dwelling had not wholly overcome the problem of seepage created by its tank-like form. In a wet season, the clay floor may well have become an embarrassing refinement.

The primary floor-level rose slightly towards its outer edges, and was bounded on all sides by the shallow foundation-gully of the screen-walls and the deeper, widely spaced sockets of the structural posts. Presumably because the structures were unusually light and shallow-founded, demolition had caused exceptionally severe damage to the indications below ground. The wall-screens appeared to have been ripped out of the ground from inside, so that the edges of the gully were more often than not broken away. It was clear, nevertheless, that the gully had originally been about 12 inches wide throughout, and that the clay floor had overlapped its filling to rest against the inside of the wall-line. The best-preserved section of the wall-line, immediately to the north of the west doorway, took the form of a parallel-sided slot 2 inches wide, such as might be left by removal of a horizontal plank that had been embedded on edge. There are three possibilities: first, that this was merely a basal sill or skirting-board, housing or retaining the bottom edges of wattlework screens; secondly that the structural uprights were slotted to allow the spaces between them to be filled completely with horizontal planking; and thirdly that the basal plank and the wall-plate were grooved to take thinner, chamfer-ended, vertical planks. Of the three hypotheses, the first is
the most difficult to maintain, since there was relatively little trace of daub in $\mathrm{D}_{3}$; and the second is perhaps the most likely.

Floor I was sealed by the overlying Floor 2, which was much thicker and composed of a 'fudgy' mixture of sand and clay resting on a purer sand. The upper material was at the first small exposure misinterpreted as unburnt daub that had collapsed or washed down from the walls, but more prolonged and extensive examination showed that it had been a uniform, level deposit deliberately laid down. The lower, sandier material is of interest in that it incorporated numerous small sherds of prehistoric pottery (Lisle's Hill Ware), a few of which had been intruded into the lower levels when the timber structures were eventually demolished: clearly the sand was derived from an area of prehistoric occupation or, more probably, burial. Only one change in the internal arrangements of the building was observed: there was no sign of the east-west row of post-holes that appeared at the lower level, 4 feet away from the south wall - a feature for which originally some allowance seems to have been made in the N.-S. spacing of the hearths, and one that could be representative of large box-beds. For the rest, Floor 2 seems merely to have embedded the standing structures a little deeper, and made it necessary for the hearths to be built up with stones and tough clay; but the surface was so widely wrecked and disturbed by later events as to lessen the value of the negative evidence. The effects of demolition were naturally even more severe at this upper level, but a few small islands of complete survival showed that a thin occupation-layer had come into place over Floor 2 before the building was destroyed.

Directly overlying were soil-layers that spoke of D3's burning and demolition. Charcoal and local reddening of the floor, particularly in the northern half of the building, indicated that initially there had been some collapse of burning material, presumably from the roof. Immediately above was a churned and heavily trampled layer of earth and stones (many scorched and cracked by fire) blackened by the pulverized charcoal it contained, which was laid down during the process of demolition. There followed a thick deposit of stones, ranging from pebbles to boulders, in a sparse matrix that was a compound of subsoil and topsoil. This infilling so closely resembled the material on the surfaces, and particularly at the skirts, of the most weathered spoil-dumps on the site as to suggest that what is involved may be simply the return of the soil originally dug out in the making of $D_{3}$. If so, there is a distinct possibility that an external embankment sheltered the walls and reduced the risk of flooding from surface-water. The surrounding distribution of post-holes and other features clearly to be associated with $\mathrm{D}_{3}$ would set fine limits on the location and extent of the hypothetical embankment. Its outer edge could extend no more than 7 feet from the wooden walls, and so would embed the lower ends of the inclined buttress-posts whose lodgements lined the limits of the ancient excavation.

Had the site of $\mathrm{D}_{3}$ been altogether abandoned after the fire, that hypothesis could be more confidently assessed; but the traces were confused by further activity. The northern half of the long hollow that remained, after most of the rough infilling had fallen into place, was developed by scooping into a circular form, and preserved by a crude revetment of boulders. The 'floor' was in all respects so irregular that the whole was interpreted as a mere working-hollow until removal of the collapsed revetment disclosed a ring of shallow, usually stone-packed, post-holes (Fig. 47). Within, a levelled area nearly 5 feet across (H on plan) carried a scatter of charcoal and fire-reddened stone, almost certainly the remains of a hearth.

Small fragments of hand-made pottery (described below) and animal-bones were found on the floor-level and especially in the interstices of the revetment. A winding, shallow trough interpreted as a path - partly cleared, partly worn into shape - led from the place where D3's east doorway had formerly existed, through the southern edge of the circle, where a setting of posts defined the entry-passage, to the relatively deep hollow which occupied most of the northern half of the contained area. The internal part of the passage was no more than 2 to 3 inches deep, but unmistakable; and its presence allows the functional aspect of the whole plan to be interpreted. This structure was a circular dwelling-house, roughly 25 feet in diameter; the passage runs to the main living area in its northern half, where most of the domestic rubbish was found. The southern half of the interior was 3 to 7 inches higher than the rest - a low platform bisected by the passage - and might well have been a sleeping-area. Overall, the layout is curiously reminiscent of the dispositions of hut, courtyards and causeway within some of the enclosed native settlements of the region.

Outside the round house, the southern part of the depression left by $\mathrm{D}_{3}$ 's demolition showed signs of localized shaping and trimming, which are sufficiently demonstrated in Fig. 47; but the prevailing impression is one of a continuing and complex process of disturbance, erosion and trampling. The abandonment of the round house was followed by more purposeful infilling of the whole area, and in the end only a slight hollow remained to be filled and levelled by the ploughs of a later age (Plate 86).

Before attention is turned from the vertical to the horizontal aspect of $\mathrm{D}_{3}$ 's context, reference must be made to the pottery stratified in the three successive levels. There was a greater abundance of pottery on Floor a than elsewhere, but much was crushed and disintegrated: all the diagnostic pieces are shown in the upper part of Fig. 81. The lower part of the same figure represents the pottery from the occupation-layer on Floor 2; and Fig. 83 is given over to the fragments associated with the living-area of the round house and its final infilling.
(2) The working-hollow lay immediately to the north of $\mathrm{D}_{3}$ and was separated from it only by an irregular balk of undisturbed subsoil varying between 6 inches and 2 feet in width. Fig. 47 shows it in primary horizontal section, and the underlying contours are seen in Fig. 49. There can be no doubt that it co-existed with Building $\mathrm{D}_{3}$, not only because it was obviously laid out with reference to the major structure, but also because the southern half of its floor was sealed over by destruction-layers clearly derived from the burning and demolition of $D_{3}$. Further, a hollowed path which ran from D3's west door northward, parallel to the west wall, swung eastward round the building's N.W. corner to enter the structure now in question. The path itself was involved with the pit-complex that flanked its western side; so that all these elements are interrelated parts of a pattern of activity that centred on $\mathrm{D}_{3}$.

Devoid of hearth and pottery, the floor of the working-hollow was irregularly scooped and pitted. Clearly it was put to some practical, everyday use, a clue to which may lie in the abnormally frequent occurrence of bone-fragments. As is usually the case at Yeavering, most of these were decayed almost to vanishing-point; but where, here and there, better-preserved fragments occurred, they were observed to be uniformly small (never more than 2 inches across) and angularly cut - the waste product of some process that involved the chopping of bones both laterally and longitudinally. If $\mathrm{D}_{3}$ was like a kitchen, this place was
like a butcher's shop. The various post-holes shown on the plans could conceivably have carried a roof, which could have been anchored to the structural members of $\mathrm{D}_{3}$ 's north gable; and the provision of posts at the entrance in the S.W. corner seems pointless unless the working-area was enclosed within screens of some light material which could disappear without trace (undaubed wattle or basketwork panels tied to the uprights, perhaps?). The infilling of the relatively shallow hollow, after the fire, was more complete than in $\mathrm{D}_{3}$, but use of a large central pit continued thereafter, probably during the lifetime of the round house. Especially heavy runs of stones, sand and debris along the southern edge of the hollow tend to support the supposition that a bank of subsoil ran along the outside of D3's north wall; and so increase the probability that $\mathrm{D}_{3}$ had stood complete for some time before the work-place was added.

The pit-complex can be seen from the plans to consist of a series of large but shallow holes dug and refilled successively. Judging from the firm consolidation that allowed the breached fillings of earlier pits to stand as the sides of later ones, a fairly long time-span is indicated; and it is likely that not more than one pit was open at any particular time. A few crumbs and small sherds of pottery, of $\mathrm{P}_{4 / 5}$ type, were found in two of the latest pits, but here again animal-bones dominated the record throughout. The identifiable fragments were much larger than those observed in the working-hollow, but as invariably cut and split. It is noteworthy that no teeth or skull-fragments of ox occurred in $\mathrm{D}_{3}$ or any of its associated structures, although long-bones of ox made up a high proportion of the identified specimens. The extreme contrast with the extraordinary abundance of ox-skulls in $\mathrm{D}_{2}$ may well be significant. For the rest, the common pattern of the infillings in the pit-complex was a regular alternation of black humus and clean subsoil layers, usually levelled off with a thicker deposit of subsoil presumably derived from the digging of the next pit.

Complex intersections showed that the path and the pits had co-existed. The hollow form of the path may have been due entirely to wear and erosion induced by intensive foot traffic over the sandy soil, and perhaps by the dragging of heavy objects; but it is not unreasonable to suspect that, like the path to the round house, it was partly dug out - and for the same kind of reason if there was indeed a bank of sand and gravel hugging the wall of $D_{3}$. Regularly disturbed, such a bank would erode and spread all the more; and so there would be need periodically to trim back its skirt from the path and pit-area. Every excavator will have noticed that when the edge of a long, eroded dump is cut back the workmen tend to dig a shallow groove into the underlying ground surface, especially where the soil is light and ungrassed; and the same effect is seen in the lowered or hollowed earth floors of ancient byres, there produced by frequent mucking-out.

A long, straight ditch, running roughly east-west (Fig. 4I) appears to have been associated with $\mathrm{D}_{3}$, but may have bearing on $\mathrm{D}_{2}$. Known during the excavation as the Black Ditch, from the dense admixture of powdered charcoal with the sandy matrix of its filling, it was remarkable for the number of animal-bones it contained. In general these were extraordinarily well preserved. At one stage indeed there was a little doubt about their antiquity; but it became clear that the degree of decay was in inverse proportion to the density of charcoal in the surrounding soil. Here, as in $\mathrm{D}_{2}$ and locally elsewhere, a high carbon content in the matrix made for abnormal survival of bone. Analysis of the bone types and animal species represented (Appendix I) shows the assemblage to be in striking contrast with that of $\mathrm{D}_{3}$
and its more securely associated structures in respect of the bone types; and its general resemblance to the $\mathrm{D}_{2}$ assemblage suggests that at least the infilling, if not the structure, of the Black Ditch is referable to the activities for which D2 existed.

Regarded simply as an empty negative structure, the Black Ditch would seem to be well named. Widening, and deepening from -9 inches to -22 inches, in its westward course downhill, it might well have carried a scour of water in its time; but allowance must be made for the fact that modern ploughing has planed down its eastern, uphill, end to an oblique horizontal section (i.e., its depth and width may originally have been more nearly constant throughout its length. As one of the only two known drainage-ditches on the site (the other, crossing the site of Building $\mathrm{C}_{2}$, served $\mathrm{C}_{3}$ ), it would be of some interest. Why special need for drainage at this point? - can it have been a device to protect $\mathrm{D}_{3}$ from flooding? Above all, why so straight and long in its descent downhill, and so odd in both the manner and the material of its infilling? The curiosities of its black and bony anatomy must be examined in greater detail.

The primary silt-layer was extremely sparse (never more than 2 inches thick), and appeared to consist of blown sand rather than the coarser detritus that would have resulted from weathering of the sides of the ditch itself. Thus, the ditch must either have been cleaned out or have been but recently dug when it was infilled. The almost total absence of gravel from the filling showed that the material that was dug out in the making of the ditch was not returned to it; and the black soil and bones rested directly on the primary silt. Where any laminations could be observed within this deposit, they were indicative of long, thin tips. Two unusually well-defined tips in the middle section of the ditch proved to be equivalent in volume to the content of a lightly laden modern wheelbarrow. Towards the eastern end, slight variations in soil colour and inclusions enabled smaller depositions to be identified with some degree of confidence, and there the unit of volume was such as might be carried in a large bucket. None of the smaller tips was observed west of the middle point of the ditch's surviving length, and all that were identified lay in the lowest third of the filling. The upper two-thirds in general showed no 'structure' but here and there the horizontal distribution of the included bones took on that complex, swirling flow-pattern which is characteristically produced by deliberate, wholesale filling-in. Five small vertical anomalies were observed: irregularly spaced along the length of the ditch, they seemed to be indicative of roundsectioned posts set in place during the course of filling-in and later withdrawn; but the density of the bone-scatter around them precluded any more refined or secure diagnosis. At the point of greatest survival, the black filling carried a thin layer of blown sand, and small lenses of the same material occurred just above the zone of small-scale tipping.

The Black Ditch, then, was fairly new or newly cleaned when the process of infilling began. At first the filling material was deposited in series of small tips; then, possibly after a brief pause, the process was completed at one blow. Posts may have been inserted at the outset of this stage, but even so the Black Ditch could hardly be regarded simply as a normal palisade-trench. The nub of the problem is the character of its filling, which throughout is uniformly composed of patently imported material. There is perhaps a clue in one slight difference between the upper and lower deposits. Whereas the charcoal in the top layer was finely comminuted and thoroughly mixed with the sandy soil, the same material in the lower dayers was less weathered and pulverized, more distinct from the smaller proportion of
soil that accompanied it; and moreover the bones in the upper zone had more often been bleached and polished by exposure. Certainly the upper part of the filling had been derived from a long-standing and oddly specialized dump of ashes and bones to which, presumably, the wind had added a sandy fraction; and its flow-pattern suggests that the dump stood very close to the ditch - a linear bank, perhaps, heaped up alongside it. While the lower filling could have been taken from the same intermediate source, it seems more likely to have come directly from the primary centre of whatever activity it was that produced large residues of charcoal and bone. Building $\mathrm{D}_{3}$ gives evidence that would allow of its having been used mainly for butchering and cooking, while D2 was periodically stacked with ox-skulls selected baked-meat residues? The Black Ditch both links and divides them; but its own particular function in relation to the two buildings remains obscure.

It must be added that this feature, like most of those remains (shortly to be described) that lay around the eastern edges of the modern sand-quarry, was mutilated in the course of widespread and ill-controlled bulldozing in 1953-54. Had not an intact section of the ditch been examined previously, some of the observations offered above could not have been made.
(3) That Building $\mathrm{D}_{3}$ and its associated structures existed within a fenced enclosure is sufficiently clear from the plans (Figs. 49 and 50), and only three significant features need be pointed out. First, it should be noted that the packing-soil of the post-holes of the fence or palisade almost invariably contained flecks of charcoal; but that burned debris in crucial timber-sockets was confined to the enclosure's nothern and eastern sides. Hence, while the latter point may well signify that the enclosure was destroyed at the same time as $\mathrm{D}_{3}$, the former suggests that it was not put up until the building had been in use for some time and been surrounded by a scatter of domestic litter. Secondly, unless new posts were put directly into old sockets, the rarity of demonstrable replacement-holes would indicate that the enclosure was relatively short-lived (several of the 'extra' holes at the S.E. and S.W. corners are obviously representative merely of stay-posts). Thirdly, one aspect of the relationship between the enclosure and the Western Cemetery is decisively demonstrated by the palisade's invasion of two graves on its eastern side.

Hence, it is certain that the enclosure came into existence during the lifetime of Building $D_{3}$, and that at that time at least two graves of the Western Cemetery were already in place. This supports the suggestion that the pre-existence of the cemetery influenced the siting of $\mathrm{D}_{3}$. Fig. $4^{\mathrm{I}}$ appears to show, nevertheless, that the enclosure set bounds to the burial area while the cemetery was still in use. It would be relieving to suggest that Cookhouse $\mathrm{D}_{3}$, with its enclosure and 'Black Ditch' belonged to a period utterly distinct from that of $\mathrm{D}_{\mathrm{I}}$, and the irregularly aggregating graves of $\mathrm{D}_{2}$; were it not that $\mathrm{D}_{1}, \mathrm{D}_{2}$ and $\mathrm{D}_{3}$ are specially bound together in both engineering and orientation (leaving fires and fauna aside).

## The Western Ring-ditgh and Cemetery (Figs. 50, 51 and 52)

From the foregoing it is clear that the Western Cemetery must have originated at or before the time of Building D3's construction. Its significant northern focus indicates that in one or more of its phases the cemetery co-existed with Building D2. There is a distinct probability that $\mathrm{D}_{3}$ was built after $\mathrm{D}_{2}$ and the cemetery were first established; but common factors in
their structure and siting show that there was a period in which the two buildings stood together, and the complementary distributions of types of animal-bones within them (Appendix I) strongly suggest that $\mathrm{D}_{3}$ was brought into existence to serve D2. Since, as can be seen from the plans, no later graves were cut across the areas eventually left free by the demolition of $\mathrm{D}_{2}$ and $\mathrm{D}_{3}$ (the case for their simultaneous destruction will be argued in due place), it seems highly probable that the removal of these buildings coincided with the abandonment of the Western Cemetery. Accordingly, the relative chronology of the whole or a substantial part of this institution's history can be set within reasonably close limits.

There is, however, a problem of definition to be faced. The blanket-term 'Western Cemetery' conveniently covers a multitude of burials that represents an unknown but presumably lengthy span of time; but it must not be allowed to mask the possibility that more than one entity is involved. The graves that have been noticed above could well be regarded as being the constituent parts of one developing whole that centred on the southern end of Building $\mathrm{D}_{2}$, but those now to be considered form a physically separate - and possibly otherwise distinct - group. Differently organized from the rest, they lie within the feature here called the western ring-ditch (Figs. 50-52).

The first segments of this interrupted ditch to be exposed were not recognized at the outset as artificial features. Their irregularly dished beds were only rarely and locally more than 7 inches deep, and they were filled with sand and gravel so clean as to suggest, before their overall pattern emerged, that they were merely geological anomalies. For a time, diffusely defined pockets of soil within them were mistaken in primary horizontal section for post-holes cut directly into the subsoil, but dissection showed their true context. They could be seen at last as holes resulting from the extraction of whatever solid, upright features had been seated in the local deepenings of the ditch-segments that are demonstrated in Fig. 5I. In form the holes were like so many miniature volcanic craters: only one achieved a depth of 18 inches, and the depths of the rest lay variously in the range from 8 to 12 inches. Since, moreover, the sandy brown filling had invariably fallen into place smoothly across the whole width of each hole, and over a broad ring of packing-stones or chocks, there was added reason to doubt that the structures removed were wooden posts. Such shallow, splayed sockets could never have supported posts of large diameter, save as stumps of negligible height; and slender posts could readily have been pulled out, leaving recognizable sockets in the ground. If the holes are viewed as the seatings of squat, upright stones, on the other hand, all the difficulties disappear. The evidence is entirely consistent with the conclusion that a stone circle was set up in the interrupted ring-ditch when it was newly dug, and removed at some time after the clean filling had consolidated around the stones.

That conclusion is supported and extended by the structural sequence at and near the true centre of the ring-ditch. There, the earliest element was a pit $7 \frac{1}{2}$ feet in diameter but tapering irregularly to a depth of hardly more than 2 feet. Enough of the original filling of sand and gravel, with packing-stones up to 2 feet long, still survived to define a central anomaly a little over 4 feet in diameter. This was filled with the same brown, sandy type of soil that was present in the presumed stone-holes in the ditch; but, unlike them, displayed the unmistakably clear traces left by the decay in situ of a heavy wooden post. The post, circular in section and $12 \frac{1}{4}$ inches in diameter, extended downwards through the bed of the pit to a depth of just under 3 feet from the surviving surface of the subsoil, to rest in a mushy


Fig. 50. Area D. Western Ring-ditch complex: primary horizontal section, showing intrusion of D3's rectangular fence. Prehistoric cremation-pits shown in solid black.


Fig. 5I. Area D. Western Ring-ditch complex, plan of excavated structures (form lines at 6 -inch vertical intervals).
deposit of charcoal about $I_{4}^{\frac{1}{4}}$ inches thick. The presence of small fragments of calcined bone reduced by decay to the consistency of butter, marked this deposit as the remains of a cremation-burial. Here interpretative choice must be made between equally feasible alternatives: either a token deposit was inserted as the direct prelude to the setting-up of the post (and into a hole then newly dug into the bed of the earlier pit), or the post was deliberately set into a pre-existing cremation-hole exposed by removal of the original pit's central feature. Minute examination of the evidence in situ, with both possibilities in mind, led the writer to believe that the latter explanation (which is supported by the presence of seven other cremations, variously inside and immediately outside the ring-ditch) fitted the stratigraphical facts slightly better than the former. In that case, since the original pit was almost certainly a stone-hole (note the seven putative anti-friction stakes on the south side of the pit, shown in Fig. 51), the sequence of events would be: (I) Digging of stone-hole at centre-point of ring-ditch; (2) insertion of cremation into a little pit dug in the stone-hole's floor; (3) erection of monolith and packing of stone-hole with rocks and returned subsoil (probably simultaneous with the making of the circular setting of stones) ; (4) removal of circular setting and central monolith, probably after some considerable lapse of time; (5) wooden post inserted into cremation-hole, perhaps after removal of the bulk of its contents.

For the present purpose the events of (1) to (3) above can be taken to mark the beginning of a local Phase I. The interior of the monument then set up clearly cannot have been mounded overall to any significant extent, as it appears that most of the spoil dug out in its making was returned. With some generosity it might be granted a wholly hypothetical bank of turf or scraped-up soil and stones, running immediately within or (more plausibly) around the stone circle. The presence of a rectangular setting of post-holes within the enclosed area does not favour the notion of an internal bank; but the testimony of this wooden structure will be shown to refer to the situation only as it existed at stage (5) above - i.e., to the state of things in Phase II, which may well have been considerably later than Phase I. The various issues involved must now be put into perspective by further reference to the focal area (Figs. 50 and 52).

Phase II begins with the replacement of the original central feature, probably a monolith, by a substantial and more deeply founded post of wood, Post 1. Later, holes cutting into the packing-soil round Post I were dug to receive Posts 2 and 3, both of which were eventually withdrawn. Next Post 4 was set up, and both the packing-soil and the socket of Post 3 were breached in the process. The packing-soil of 4 extended into the socket of 3 , and registered a vertical anomaly such as would have been produced had the extraction of Post 3 taken place after the erection of Post 4 . The crucial question is whether the posts stood singly and successively or as pairs or groups: the answer determines the time-span of important related events still to be noticed. On the whole, the evidence accords better with the hypothesis that these were successive features, Posts 2,3 and 4 standing in turn beside the original - or its remains. The stump of Post I was left to rot in situ; but it cannot safely be assumed that the decay or truncation of its greater portion exposed above ground did not take place during the effective lifetime of the whole. The lack of horizontal intersection between 2 and 3 appears to deny the hypothesis of succession, an essential link, but the fillings of the postholes in question were so dissimilar as almost to preclude the possibility of their having been exactly contemporary (the packing-soil of 2 was pink boulder-clay with nuggets of indurated
gravel, whereas that of 3 was yellow sand with lenses of humus and more frequent packingstones). Needless to say, while Post I clearly was the original, and ' 4 ' certainly succeeded ' 3 ', the numbering of these features is otherwise arbitrary and could be rearranged -3 could in reality have been the second post to be put up, and 2 the last. Two smaller post-holes (one dubious) cut into the packing-soil of 3 , and a third immediately to the south of the intersection between I and 4 , might be ancillary to the main sequence.

There is other evidence to indicate that one or more of the posts remained visible and significant over a period of some years. A distinct group of thirty-one graves lay within the area enclosed by the circular stone setting and its hypothetical bank. All but three of the graves were laid out radially or tangentially from the centre of the circle and, as will be seen from the plan, several seem to refer to specific posts. Three graves arranged in an arrowshaped formation point directly at Post 2, and the southernmost cuts into its packing-soil. The packing-soil of Post 4 is similarly invaded by another grave; but in neither case is there any disturbance of the post-socket. It appears that this group of burials, like the string-graves


Fig. 52. Area D. Western Ring-ditch complex (second phase): the rectangular mortuary enclosure or shrine, and its associated inhumation graves.
of the eastern cemetery in the neighbourhood of Post BX and the eastern ring-ditch, was organized on the principle of reference to physical datum-points - in this case, Posts I-4. Four instances of superinhumation imply that the area was of concern to the members of more than one generation; and two differences between the four demonstrably secondary graves and the rest may reflect the decay of old ideas with the passing of time. It may be by chance that all fall in with the predominantly east-west orientation characteristic of both the eastern and western cemeteries; but it seems significant that of the two exceptional graves containing iron knives one was cut east-west across an earlier burial and the other lay eastwest athwart the true radius accepted by another interment a few feet nearer the centre.

The second was the western of the two northernmost graves within the ring-ditch which were laid out in line ahead along the north side of the rectangular post-setting - an arrangement that raises the question of the relationship between the graves and the timber structure.

In all, only four graves lay wholly outside the rectangular post-setting (the pair on the north side, mentioned above, and two on the east side) ; and if these are experimentally removed from the plan it can be seen that the general pattern of burial is in striking conformity with the outline of the rectangle. Indeed, the outer ends of so many graves coincide with the bounds set by the posts that the whole goes beyond the possibilities of mere chance. In all instances of intersection between graves and post-holes, the graves were shown to be the later features. Although the siting of certain graves is such as to indicate that in each case one or two posts must have been removed previously, the majority of the burials could perfectly well have been put into place while the timber structures were still standing. Nevertheless, lines of stake-holes show that wall-screens ran between the structural posts, and a pink suffusion (totally absent from the Phase I structures) in the filling of the postsockets appears to have resulted from erosion of unburnt daub; so that where graves extend beyond the possible limits of mere undermining, it must be assumed that they were dug when the timber structure was in an advanced stage of decay or after it had been removed. All the posts of Phase II had been uprooted, and it seems significant that the fillings of all the graves that most grossly violated the wall-line were distinguished by the presence of pink, daub-like material (as, to a far lesser degree, were those of three of the four superinhumations).

These graves, the first to be investigated at Yeavering, fully demonstrated the site's ability to consume and absorb organic remains. At the outset the possibility of the bodies having been exhumed was considered; but later the discovery of surviving tooth-enamel in a number of cases proved that the only translation involved had taken place in purely chemical terms. From these minute survivals it was evident that most (probably all) of the primary, radial graves strictly within the rectangular structure had presented the feet of the bodies inwards to the central posts. Three nonconformist graves, two of which are demonstrably late, must be noted. First is the east-west grave at the southern edge of the Phase I stone-hole, in which the position of the iron knife indicated that the body had lain with head to the east. Secondly, 7 feet to the east, is the east-west grave cut clean across the east wall of the rectangular structure to contain a body laid out with head to west. Thirdly there is the pair of graves immediately outside the north wall of the rectangle, heads to west (one furnished with a knife).

To sum up, the history of the western ring-ditch complex appears to have been as follows. In Phase I the ring-ditch was dug, partly perhaps to provide material for an (outer?)
bank but certainly in any case for the setting-up of a ring of stumpy, presumably stone, uprights. It is more likely than not that a cremation-burial, urned or unurned, was put into place at the true centre of the circle at this stage, when the bedding-pit for a large central monolith had been excavated. After an interval of unknown but probably long duration, all the standing-stones were removed, apparently in order to allow the erection of the wooden structures of Phase II. If the rectangular setting of posts and daubed weather-screens is interpreted as a simple enclosure open to the sky, the successive posts in the central area must have been of ritual significance rather than practical use; and then the clearing away of stone in favour of wood must be, if not iconoclasm, at least the mark of reformed belief. If, on the other hand, the Phase II structure is viewed as a building with a roof supported by the central, long-lived Post I (with four main rafters not less than 23 feet long), the removal of the obstructive monolith may be seen as a matter of more practical necessity. The daubwash in the fillings of various Phase II post-holes and graves sets them apart from the earlier features; but the rectangle is laid out with great precision within the original circle. Accordingly it is reasonable to assume that the building of the wooden structures followed immediately upon the removal of the standing-stones: otherwise it must be postulated that the hypothetical Phase I bank survived sufficiently well to give the necessary points of reference. The broken circle of small post-holes near the inner edge of the ring-ditch is more likely to belong to Phase II than Phase I (the fillings of two holes thought to belong to it showed traces of daub-wash).

Phase I, then, is distinguished by standing-stones, and its apparently associated cremations (where urned, demonstrably prehistoric) may give context to the more extensive series on the knoll defined by the $238^{\prime}$ contour, to the east. An abraded sherd of corded beaker stratified in the clean filling of the ring-ditch sets the earlier limit for the absolute dating of the monument; and a fragment of food vessel was found on the surface of the central stonehole, embedded on edge where the packing-soil appeared to define the original stonesocket. Three flint flakes occurred elsewhere in the packing-soil, and others were present as 'strays' in the fillings of Phase II inhumation-graves.

Phase II, on the other hand, is set firmly into the protohistoric or early historic time-zone by the iron knives buried in two of its graves. One of the knife-graves is patently late in the series; the other indeterminate, stratigraphically, but probably not very early. It is difficult to resist the conclusion that the earliest of the inhumation-graves are those within the rectangle that lie in direct relationship with Posts 2 and 3 ; in which case the grave-group will have grown, radially at first, outwards from the centre until the enclosing walls were reached. It was then, perhaps, while the building still stood, that the area around it was used for four east-west burials; but the pattern of superinhumation shows the central area to have remained the focus of favour, and perhaps of privilege. When eventually all the wooden structures of Phase II, save Post I, were pulled out of the ground, not more than seven graves were cut across the lines of the former walls. Thereafter, it seems, the evidently ritual purpose of this temple-like centre lapsed.

All in all, the Phase II monument must be regarded as a complex entity which, physically and historically, stands separate and distinct from the western cemetery as earlier defined. Leaving aside its more ancient associations, there is more than the difference in ritual practice to suggest that the burials of the ring-ditch complex are not of the same date as the
series that came into place around Building $\mathrm{D}_{2}$ and extended to the boundary set by $\mathrm{D}_{3}$ 's fence. It will have been observed from Fig. 50 that that fence rides roughshod over the ring-ditch, and testifies to the demolition (in one sense or another) of the hypothetical bank. Obviously the fence was built after the Phase I stone structures had been removed: equally, $D_{3}$ and its fence are at such odds with the rectangular 'ritual' structure, in the matter of orientation, as practically to exclude the possibility that all were built (or even in existence) at the same time. The western ring-ditch grave-group has in common with the eastern string-graves the practice of ritual reference to long-standing physical datum-points; but, even if the important differences between them are disregarded, it is still impossible to equate them in time. The string-graves were densely packed with burnt debris from the destruction of neighbouring structures. The ring-ditch graves lay between two buildings, $\mathrm{D}_{3}$ and $\mathrm{D}_{4}$, that certainly were burnt down; yet none shows any intrusion of the thick, black scatter of debris so clearly indicated by the condition of the demolition-holes in the buildings. Hence, the ring-ditch inhumations must be earlier than those associated with $\mathrm{D}_{2}$ and $\mathrm{D}_{3}$ : they were not inserted into a space that happened conveniently to be available between two vanished buildings - they were there before the buildings were put up, and their site, though abandoned, was thereafter respected.

Accordingly, the Phase II burials of the western ring-ditch complex may be seen as the earliest known inhumations on the site; and the temple-like building or ritual enclosure is to be set somewhere among the earliest rectangular timber structures of Yeavering. If the evidence has been interpreted rightly, the Phase II monument will be older than $\mathrm{D}_{2}$ and $\mathrm{D}_{3}$ by at least the length of its own lifetime - 25 to 75 years, say? - and there is the possibility that some time elapsed between its demolition and their construction. Archaic in its reference to more ancient local tradition, the whole speaks not only of renewal but of innovation too. Clearly the history of Yeavering's ritual associations began long before it became the site of great halls, and its physical record must register the local pattern of response to changing fashions in belief and ritual practice.

This analysis of the structural relationships within the ring-ditch complex has been perhaps wearisomely long; but it allows the western cemetery at last to be more distinctly defined as a product of that most significant period of change and development that saw the erection of Buildings $D_{1}, D_{2}$ and $D_{3}$. Initially focused, it would seem, on the recently instituted Building D2 (and particularly on D2's own rectangular enclosure harbouring free-standing posts), the western cemetery betokens the adoption of a new ritual centre. Moreover, in the great number of its unfurnished inhumation-graves, it would seem to reflect something more than merely the passing of time: there was some increase in the population of the site, perhaps, as the township developed; but conceivably also a more generally democratic use of the burial-area - or a greater popular attraction towards it. The ring-ditch inhumations, after all, might well be representative of no more than a privileged social group. Its location and extent apart, the western cemetery is specially distinguished by uniformity of practice: here east-west orientation with the head to the west (an arrangement seen in the latest inhumations of the ring-ditch complex) is the strictly observed rule.

Building $\mathrm{D}_{4}$ (plan, Fig. 53) was orientated east-west in both of two structural phases (D4 (a) and $\mathrm{D}_{4}(\mathrm{~b})$ ). It does not appear on any of the air-photographs because its remains were
covered with so thick an accumulation of ploughsoil that there was no occasion for differential growth of crops over it, and it was discovered only when the topsoil had been stripped off with a bulldozer during the extension of the sand-quarry (which has since engulfed it). The remains were severely damaged; but isolated patches of an original floor-level survived, and with them the vestiges of a hearth.

Building $D_{4}(a)$ was in nearly all respects similar to Building $\mathrm{Ar}_{\mathrm{I}}(\mathrm{a})$, with a door in the middle of each wall. Individual wall-timbers were not identified, but the width of the wall was found to be consistently between 5 and $5 \frac{1}{2}$ inches. Thin lenses of dark soil which overlay the undisturbed subsoil inside the building were thought to be the remains of the original floor. The overlying traces of the hearth shown on the plan may relate to $\mathrm{D}_{4}(\mathrm{~b})$ (q.v. below). Sherds of pottery, exemplified by 2 in Fig. 82, were found in the packing-soil of both the north and west wall-trenches. A fragmentary loom-weight (Li, Fig. 86) lay in the demolitiondebris. Charcoal-blackened soil and burnt daub were characteristic of the refilled sockets that survived; and their distributions in the packing-soil of $\mathrm{D}_{4}(\mathrm{~b})$ confirmed that $\mathrm{D}_{4}(\mathrm{a})$ had burned from S.W. to N.E.

Building $D_{4}(b)$, constructed after $\mathrm{D}_{4}(\mathrm{a})$ was destroyed, closely resembled Building $\mathrm{Ar}_{\mathrm{I}}(\mathrm{b})$, except in that it had no annexes, but was divided into two chambers by a north-south partition-wall.

A roughly circular patch of reddened clay, certainly the base of a hearth, appeared probably to belong to the later rather than the earlier building. The evidence is not absolutely conclusive, and the opinion expressed rests largely on the fact that the reddened clay overlay the thin, dark seam of soil which was taken to be the original floor-level. There is the additional point that the asymmetrical position of the west doorway of $\mathrm{D}_{4}(\mathrm{~b})$ accords better with a hearth in this situation than does the central placing of the same doorway in $\mathrm{D}_{4}(\mathrm{a})$.

The presence of a hearth in the western chamber of Building $\mathrm{D}_{4}(\mathrm{~b})$ supports the testimony of potsherds (represented by 2 in Fig. 82) and decayed bones, found in its wall-line. This was clearly a living-room. The smaller, eastern chamber, of which the floor was nearly intact, produced only a few animal-bones. A row of post-holes in its northern half is suggestive of a box-bed.

The wall-timbers had been neatly withdrawn, leaving a slot, with parallel sides 4 to $4 \frac{1}{2}$ inches apart, into which burnt bones, baked daub and crackled stones had intruded. Clearly $\mathrm{D}_{4}(\mathrm{~b})$ was destroyed by a fire that mounted in intensity as it swept from N.E. to S.W. whereas its predecessor had burned from S.W. to N.E.

Building D5 (plan, Fig. 54), orientated W.S.W. to E.N.E., lay at the brow of the whaleback and its north-western extremities had been partly destroyed by ploughing (Plate 89). It so greatly resembed Buildings $\mathrm{AI}_{\mathrm{I}}(\mathrm{a})$ and $\mathrm{D}_{4}(\mathrm{a})$ that structural description will be confined to its points of difference from them.

In its character and elaboration, the east doorway was quite distinctive (Plate 88). It was not marked by the usual intermission of the wall-trench, and, but for the presence of two especially large posts where the door-jambs would normally have been expected to occur,
its very existence might have been doubted. Although there was a break in the subsequent demolition-trench at this point, the underlying remains of the wall-line were continuous. Two pairs of posts within the wall, and one pair without, were aligned with the putative eastern and the unambiguous western door-jambs. Interpretation of these features hinges on the apparent fact that there was no opening between the supposed door-jambs in the east wall. The only hypothesis that seems fully consistent with the evidence is that the doorway opening was set well above ground-level (as was suggested in the case of Az's west door), and that the two internal pairs of posts supported a gallery or loft (even, perhaps, a small tower). Between the pair of major post-holes outside the 'door' were two shallow, rectangular holes which could conceivably mark the lower end of a flight of steps.

The original filling of Building $\mathrm{D}_{5}$ was in places unusually rich in humus, and contained decayed animal bones. These characteristics are doubtless explained by the pre-existence of Building D6 (see below), and some associated scatter of occupation-material therefrom. The top of the trough dug during the demolition of $\mathrm{D}_{5}$ had been levelled off with light, sandy loam containing many particles of charcoal (Plate 88). That deposit was only a few inches deep (and had indeed been removed from the north wall by ploughing) and below it the trough was filled with large quantities of burned daub, which extended into the underlying timber sockets. Vitrified fragments occurred only in the eastern half of the north wall and in the northern two-thirds of the east wall. Several convincing basal impressions of the timbers were recovered, all 5 to 6 inches wide by $10 \frac{1}{2}$ to 12 inches long (save in the east wall, which was of heavier construction). A small fragment of a loom-weight, L3, of precisely the same character as $\mathrm{L}_{1}$ and $\mathrm{L}_{2}$ (Fig. 86), was found in the wall-line near the southeast corner of the building.

Building D6 (plan, Fig. 54) was in all ascertainable respects the exact counterpart of Building $\mathrm{A}_{5}$ ( $c f$. Fig. 67 ). It was certainly earlier than $\mathrm{D}_{5}$, as the photographs of the primary horizontal section in Plates 88 and 89 demonstrate. The symmetrically placed doorways in the east, south and west walls should be noted.

The evidence here was clearer than in $\mathrm{A}_{5}$, and there was no doubt that the structure had been based on a framework of stout vertical posts set in deeper holes dug into the beds of the trenches. The largest of these posts occurred at the doors and corners, and others were set at intervals of roughly 4 feet between them. Such poor basal impressions as could be recovered suggested that all these uprights were oblong, possibly rectangular, in section. A diffuse line of daub-wash extended from one post to the next; and in the east wall, near the south-east corner, solid daub occurred in situ to a depth of 4 inches from the surviving surface of the trench. It is reasonably certain, therefore, that the walls were panelled with wattle-anddaub. The presence of two posts, instead of one, at the south-west corner could very well imply the use of prefabricated, horizontally woven panels of wattlework: for if two panels of this kind proved to be slightly too short to meet properly at the corner, they themselves could not easily be lengthened; but the insertion of an additional major post would readily achieve an adequate union.

One sherd of pottery (Fig. 80, bottom) was found in the north jamb-pit of the east door, and a frost-crumbled mass of identical material occurred in the inside of the south wall-line, near the surface.

Area E (Plates 90-ro4)
Building E (plan, Fig. 55), set at the centre of the township, was a structure of quite extraordinary character and size.

Its most conspicuous remains consisted of nine foundation-trenches describing concentric arcs of circles between two radii forming an angle of approximately $54^{\circ} 30^{\prime}$. These trenches are numbered from I to 9 , proceeding outwards from the centre-point (i.e., from what must be regarded as the front of the structure, to the back).

That the trenches had held the lower parts of continuous walls was demonstrated in each case by the presence of a longitudinal slot in the packing-soil, representing the wall-line. The continuity of that feature in the upper levels was made the more obvious by its filling, largely composed of coarse gravel. This had fallen into place as each wall was removed, and could be observed both horizontally (Plates 93 and 94) and vertically (Plate 95). Indirect evidence of continuity of the walls was given in transverse section (Plate) 96 by the consistently differential stratification of the packing-soil on either side of each wall-line; which indicated that two separate operations had been required to back-fill the inner and outer sides of the trench, respectively, when the wall had been set in place.

Towards the bottom of each trench the indications of the wall-line became progressively more refined and precise (Plate 97), and were ultimately resolved into a series of impressions on the bed of the trench (Plates 10I, 102). Cumulatively, these indications showed that the walls had been composed throughout of closely set, vertical timbers of rectangular section: those in Trenches 1 to 6 varied in thickness from $6 \frac{1}{2}$ to 8 inches, and those in Trenches 7 to 9 from 5 to 6 inches.

In Trenches i to 6 it appeared that all the wall-timbers had rested directly on the subsoil. At the outer ends of Trenches 7 and 8 , every second timber had left a slightly deeper and more precise impress; and in Trench 9 the indications of each alternate post came to an end a few inches above the basal level, and only the familiar, open pattern of the intermediate posts appeared on the bed of the trench.

Larger posts, aligned with the bounding radii, terminated each wall. The indications of those in Trench I measured horizontally ${ }^{1} 3^{\frac{1}{2}}$ inches by 7 to 8 inches (Plate 97), but all the others that were determinable were uniformly 16 to 17 inches in width and II to 12 inches in thickness at the base. The impressions of the terminal posts of Trench 6 were extremely confused, and five others could not be measured with any degree of accuracy.

From Trench I to Trench 6 there was a progressive increase in the depths of the trenches (Fig. 56). Trench 7 was a few inches shallower than Trench 6 ; but Trenches 8 and 9 were again successively deeper. Measured from the modern ground-level, the maximum depth of Trench I was 3 feet; of Trench 6,4 feet 3 inches; and of Trench 9,5 feet 3 inches. The reason for this gradation in the depths of the trenches can only have been that each successive wall, from front to back, was required to stand higher than the last: that this was a tiered structure, akin to a grandstand.

Trench I confronted a pit (Plate 104), 4 feet deep and of roughly semi-circular plan, in which clay, loamy sand and gravel had been packed round a vertical post, Post $E$. The post itself was represented by fine, even humus, free of stones (in contrast to the stone-filled
sockets of the withdrawn wall-timbers), and it is extremely likely that it was left to rot when all else was dismantled. Several flat stones appeared deliberately to have been wedged between the post and the top of the packing-soil, on the north-east side; and a small piece of baked daub, bearing a faint impress of wattles, accompanied them. No burned material occurred elsewhere in the filling. Mealy traces of decayed bone were found on the floor of the pit.

Between Post E and Trench I was a trapezoidal arrangement of eight small post-holes (Plate 104). Three stake-holes were set symmetrically at its west side. All the posts and stakes of this structure had been driven into the ground, save two (at the south-west corner of the trapeze) which appeared to be replacement-posts. The sockets of those two posts were distinct from the rest in that they contained 'fudgy' material, ranging in colour from yellow to reddish-orange, resembling lightly burned daub. The whole is interpreted as a small platform, or dais, with a step at its western side.

Post E and the supposed platform stood within a nearly semi-circular setting of six postholes (Plate 104). Traces of daub-wash between two of them indicated that these six posts were more likely to have been the basis of a screen of rendered wattlework than to have been free-standing. A row of three smaller posts on each side of the platform may be interpreted similarly.

Behind Building E, at a maximum distance of 19 feet from the wall-line of Trench 9 , was a row of four large, stone-packed post-holes, roughly ig feet apart. Their western sides and packing-stones vertical, their eastern markedly oblique (Plate 103), these sockets were clearly lodgements for four heavy buttress-timbers inclined towards Trench 9.

So great was the volume of timber inserted into the ground in the construction of Building E that not less than 72 cubic yards of excess soil and gravel had had consequently to be spread over the former ground-level. The relatively fine packing-soil in the trenches had been shovelled in from the tops of the spoil-dumps, and the normal accumulation of stones round the base of each dump had been left at surface-level; hence, coarse gravel later replaced all the withdrawn wall-timbers. The building stood partly in a slight natural hollow (Fig. 12), and a thin capping of humus may already have formed over this upcast layer during the lifetime of the structure; but, be that as it may, there was a sufficiently greater depth of overburden in some places to protect the surface from damage by ploughing. The insulation of the south-western part of the area from modern disturbance was so complete that a small cairn of stones, placed or tumbled over Trench 8 after the demolition of the building (Plates 91 and 92) had survived (Fig. 55, blue overprint). It was found to cover a small pit, containing scattered scraps of calcined (but nevertheless decayed) bone and numerous flecks of charcoal (Plate 98).

For some distance around the cairn, the favourable circumstances had allowed the original turf-line (visible, in section, in Plates 100 and ror) and its covering of upcast also to survive. At the west edge of Trench 9, east of the southernmost of the presumed buttresspits, the surface of the upcast layer displayed a large patch discoloured by fire (Fig. 55, red overprint). The focus of this burned area lay at the very edge of the trench, where a large number of reddened and crackled pebbles lay intermingled with exceedingly small flecks of charcoal, and the underlying soil was diffusely reddened. The adjacent section of Trench 9 itself contained abundant evidence of the effects of fire. A series of wall-timbers had been dug


Fig. 57. Area E. Reconstruction-drawing of Building E. Presumably Post E was carved or carried an emblem The plan of the platform suggests that it was made to carry a seat or throne.
out and new timbers had been set in place by means of a repair-trench, which contained reddened clay and pebbles and a great quantity of charcoal in the lower levels of its packingsoil. Moreover, the beds of several pit-like excavations within it (although disturbed by repair-work) were so intensely reddened, and so thickly overlaid with trampled charcoal, as to leave no doubt that they had been wholly exposed during the fire. This circumstance can be explained in one of only two ways: either the pits were dug to remove timbers which were still burning, or they mark a deliberate breaching of the structure immediately before the fire. In either case, the focus of the scorched soil at surface-level certainly must represent the actual starting-point of the fire.

A thin, shallow and tapering band of reddened and crackled pebbles was observed to run along the southern edge of the building. It was most strongly marked near the south-west corner, and gradually died away to the north-east; as though some readily inflammable material, such as wattling, had quickly burned itself out along this line, without igniting the rest of the main structure. Hence, it appears that the fire spread north-eastwards from its source; so that at the time of the fire the wind must have been blowing from the S.W. quarter,
as it most commonly does at the present day. Not the least interesting aspect of this evidence is the indication that there can have been no embankment of excavated earth at the back of Building E - unless the reddened soil-surface is to be viewed as the bottom of a large pit or bay specially dug to expose the timbers.

In the course of repairs after the fire, some unusually large posts were inserted (Fig. 55). The new part of the wall in Trench 9 appears to have been continuous at the uppermost levels, but the lower half of the trench-filling yielded reliable indications only of the widely spaced larger posts.

The geometrical basis on which Building $E$ was set out will be referred to again in section III (p. 124) below; but here it must be remarked that the symmetry of the timberwork in Trenches I to 6, inclusive, shows this part of the structure to have been laid out in one methodical operation, from a primary datum-point represented by Post E. The varying degree of eccentricity of the walls in Trenches 7 to 9 , on the other hand, indicates that they were added later, when the standing structures of Trenches 1 to 6 would have made it impossible to strike further arcs of circles directly from Post E. This conclusion is supported by the difference in size between the timbers of Trenches 7 to 9 and those of the other six trenches.

Five events in the history of this structure may therefore be recognized: (I) its original construction, with large timbers set in six precisely concentric arcs; (2) its enlargement by the addition, before the fire, of three further 'walls', less symmetrically laid out and made of smaller timbers; (3) its partial destruction by fire in exceedingly curious circumstances; (4) its repair (and hence, presumably, its continued use) after the fire; and (5) its subsequent demolition without hint of further disaster.

## (II) SUMMARY OF STRUCTURAL SEQUENGE EVIDENCED BY

 INTERSECTIONS IN AREAS A AND BThe longest series of structural intersections is provided by Areas A and B. This, the key to the overall sequence of structures and events on the site as a whole, is summarized in the table given in Fig. 58. Where the relationship between two contiguous structures is a matter of probability rather than of certainty, the fact is indicated in the table by the use of a hyphenated line; and the indeterminable duration of certain features is similarly expressed.

Obviously the physical isolation of Areas C to E, inclusive, does not allow their structures and internal evidences of intersection to be related directly to this key-series in the same terms. Their places in the sequence must be assessed at a later stage, by analysis of the various structural methods and styles that are in evidence. As a prelude, therefore, to formulation (in section IV, below) of the architectural types and styles involved, and of the successive phases of which they are characteristic, the section that now follows will present such aspects of the evidence as relate to the processes by which the major buildings were set out and erected. Those processes are for the most part indicative simply of basic constructional concepts; but they show here and there that they were sometimes influenced by less mundane considerations also. The observations that now follow are especially relevant at this point in that they throw further light on various questions of structural sequence.

Fig. 58. Chart setting out structural intersections given by Areas A and B.
(III) THE PROGESSES OF SETTING-OUT, MEASUREMENT AND GONSTRUCTION AS EVIDENCED BY THE MAJOR BUILDINGS

## Building E

General reference has already been made (p. 122) to the geometrical basis on which Building E (Fig. 55) was set out. More particular consideration of its procedural implications will here give context to the less obvious, though equally significant, evidence of systematic setting-out in other buildings and areas.

It could hardly be doubted that initially the plan of Building $E$ was laid out on the ground with line and pegs. The northern and southern ends of its 'walls' were so consistently aligned as to indicate beyond all question that Post E represents the primary datum-point from which they were determined. The following successive operations may be inferred:
(I) The primary datum-point (assumed here actually to have been, from the outset, Post E) was established.
(2) A length of cord was attached to Post E, laid down along the required axis of symmetry and tied to a peg at its west end.
(3) Two measurements, taken at right-angles from the west end of the axial line, determined the two radii which (proceeding from Post E) were to define the north and south sides of the structure. These points also were doubtless marked by pegs.
(4) A series of equidistant points was then set out along the axis of symmetry (either with pegs spaced out by separate measurement, or by reference to divisions already marked on the axial cord). These marked the required points of intersection between the axis and the timber walls that were to be built.
(5) The west end of the axial cord was then detached from its peg; so that it could be swung freely from Post E , and by appropriate shortening of its effective length could be made, when stretched taut, to describe each successive arc as it was required. Possibly the free end was looped around a sharpened stake, with which the main curves could be scored into the turf.
(6) As soon as each arc had been scribed or otherwise marked on the ground, the corresponding wall-trench was dug. The spoil was thrown in equal parts to both sides of the trench. The wall-timbers were emplaced and the trench back-filled before the next trench was similarly laid out and dug. The work of construction proceeded from Trench 6 (the original back of the structure) forwards to Trench 1 . Throughout, the setting of the timbers was controlled by the cord stretched from Post E. ${ }^{66}$

It is evident that the concept underlying the constructional technique of Building E is an almost obsessive preoccupation with the continuous wall as a weight-bearing structure. The implicit rejection of the simple, heavy framework (that would as well, and more economically, have served this particular purpose) is a key to the specialized tradition of the Yeavering builders; for here, surely, they merely transferred to an unusual form the characteristic technique they habitually used in the construction of halls. This structure reflects, on the one hand, the highly sophisticated aspirations of those who caused it to be built; and on the other, the limitations of local and contemporary engineering. Overall, though its fundamental basis may have been uncritical, its execution represents a grasp of method, a regard for geometry, and a striving for precision.

## Buildings A2 and A4

The preceding observation could be extended to both $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$. It would have special force in the latter case; but the plan of A2 was so much less obscured by later building that it forms the more suitable subject for prior demonstration (Figs. 59 and 60).

During the excavation of Building $A 2$, it was observed from the drawn plan that the width of the massive rectangular jambs of the north and south doors was in each case exactly half the width of the corresponding doorway. As these and other features were still accessible, they were measured again with the utmost accuracy; and it was found that the plan truly represented them. Further testing and experiment showed that if the total width of each door-assembly was assumed to represent 8 units of linear measurement (of which the width of each door-jamb constituted 2), the dimensions of the building as a whole responded to analysis in terms of whole numbers of the same unit. ${ }^{67}$ This unit was, as nearly as could be determined, the equivalent of ${ }_{1 I} \cdot 05$ modern inches, or $28 \cdot 1 \mathrm{~cm}$.

A2 was divided laterally into two parts by the opposed doors in its north and south walls and shares this characteristic with every major building on the site. For a number of reasons, as will appear, these doors can hardly be regarded as mere piercings of the long walls, and are taken to represent a fundamental constructional division of the building. Fig. 6o shows that the eastern part of $\mathrm{A}_{2}$, so defined, was of greater regularity than the western; and the line $\mathrm{X}-\mathrm{X}$ indicates the significant alignment of the east jamb-posts of the doors in question with a pair of internal roof-posts. The line $\mathrm{X}-\mathrm{X}$ will be seen to form the west side of a square, of which the other three sides are defined by the walls of the building: a square measuring precisely $40 \times 40$ units of $I \mathrm{I} \cdot 05$ inches.

In the western half of the building there is no corresponding lateral alignment of roofposts with the west jambs of the north and south doors. While the distances from the west sides of those jambs to the end of the building closely approximate to 40 hypothetical units, the width of the building decreases progressively (westward from that point) from $39 \frac{1}{2}$ to 38 . This irregularity is evidently due to error, the nature and extent of which appears from Fig. 6o. The line $\phi-\phi$ shows the closely determinable longitudinal axis of symmetry of the eastern square, produced westward to demonstrate the discrepancy between the two halves of the building. The setting of the jambs of the west door indicates, relative to $\phi-\phi$, a northward divergence of about $\mathrm{I}^{\circ} 25^{\prime}$ from the true line of the long axis. There is for the most part a corresponding misalignment of the north and south walls, which in the latter is abruptly exaggerated by two successive northward deflexions (at the 14 -unit and io-unit marks, respectively, on the south side of the hypothetical grid). A lesser, southward, deflexion occurs in the line of the north wall (to the west of the corresponding 12-unit mark). Minor, local variations are present also in the lines of the north and south walls of the eastern half of the building. All the roof-posts, nevertheless, are sited with reasonable accuracy relative to the 'true' long axis.

Overall, this evidence suggests that Building A2 was conceived of, constructionally, as two squares of $40 \times 40$ units set side by side, separated by the width of the opposed north and south door-assemblies (the span of which would thus actually determine the precise total length of the structure - in this case, 88 units). Further, it seems to imply that the two squares were not constructed simultaneously, but successively. The presence of the roof-posts


Fig. 6o. Area A. Building A2, analytical plan showing the timber structures and their metrological response.
on the line $\mathrm{X}-\mathrm{X}$, and the relatively greater precision of the structures to the east of it, are thought to indicate that the eastern half of the building was erected first. The nature of the inaccuracies in the western square suggests that its east-west wall-lines were laid out by visual alignment with their standing eastern counterparts, and that slight errors occurred during this process.

If this interpretation of the evidence is to be validated, the procedures it involves must be shown to have had practical purpose; which requires that they should now be considered in conjunction with the main structural features of the building: the walls and their external posts, and the roof-posts.

The extraordinary solidity of the walls, and the depth to which they were set into the ground (Fig. 16, Plates $24^{-27}$ inclusive), can hardly be explained except on the basis of their having been required to bear a large part of the weight and thrust of the roof. Furthermore, since the external posts were buttresses inclined inwards to meet the walls at wall-plate level, they additionally demonstrate that it was here that the builders expected the major forces of the roof-structure to operate. ${ }^{68}$ Given adequately rigid lateral ties at wall-plate level, this basic structure could conceivably have been roofed without the paired internal posts; but the great width of the building (about 37 feet) is unlikely to have been spanned by single beams. The pairs of roof-posts must, in any case, have functioned at least as props supporting the lateral ties; and if, as seems likely, the span was achieved in three sections, the vertical posts were essential for unification.

It follows that construction of the roof could not begin until these basic structures walls, external posts and internal roof-posts - were in place. But had the whole range of the walls and roof-posts stood complete before the construction of the roof was begun, handling of the obviously huge roof-timbers would thereby have been made unnecessarily difficult; for then there would have been no room to manœuvre them within the building, at groundlevel. The basic requirement in the erection of such large, heavy superstructures is, after all, that the various members should be hoisted as directly as possible to the positions they are to occupy, to minimize the need for hazardous manœuvres above ground. ${ }^{69}$

At this point the practical reason for double-square layout of Building A2, and its attendant features, begins to appear. The ranging of the deeply founded door-posts with the roof-posts on the line $\mathrm{X}-\mathrm{X}$ seems to be a device to allow construction of the eastern half of the building to proceed in stages eastward from it. This is confirmed by the stratification of the lower soil-layers in the foundation-trenches, which gave evidence of building from west to east in the eastern square and from east to west in the western square (Fig. in). That order of procedure would allow the north and south walls to be set in place, section by section, as required, and buttressed at appropriate intervals; so that, throughout the operation, it would be possible to hoist the heavy elements of the superstructure into position with the greatest possible directness. Such a method would also give maximum freedom of movement from one side of the wall to the other while it was being built, and would allow all the timbers to be stacked or laid out close at hand in readiness for use. All in all, it is likely that the walls (and perhaps some part of the substructure of the roof) of the eastern half of A2 were built before work began on the western half, which was then added, section by section, to what already stood.

What is here suggested is, of course, essentially a bay-system. If the procedures in con-
struction have been rightly interpreted, they are somewhat reminiscent of the manner in which the 'long-houses' of northern Europe were often extended lengthwise, and more obviously recall the bay-system of later medieval times. Certainly those local deflexions of the wall-lines that were noticed earlier are wholly consistent with the hypothesis of piecemeal, bay-by-bay, construction; and can hardly be explained otherwise.

Building $\mathrm{A}_{4}$ (Fig. 6I) affords confirmation that the features specially noticed in A2 were truly characteristic. Here again is the significant alignment of posts along the line $\mathrm{X}-\mathrm{X}$, but in this case it defines the eastern side of the remarkably symmetrical western square; and, as before, major irregularities occur only in the other half of the building.
$\mathrm{A}_{4}$, indeed, marks the fullest development of all that was impressive in A2. That its walls were no mere screens, but load-bearing structures, could hardly be denied in view of the astonishing depth of their foundation (Fig. 18 and Plate 40); and the extraordinary development of the external post-holes into deep, bowl-shaped pits (Fig. 20 and Plates $33-35$ inclusive) leaves no doubt that they held simple, wooden forerunners of the flying buttress which were lodged against the bases of the vertical or undercut outer soil-faces.

No less striking is the precision with which this great building was set out and constructed. In this connexion, Fig. 61 may be left to carry the burden of demonstration. Its testimony seems to justify use of the alternative term Yeavering unit in future reference to the hypothetical unit of measurement. ${ }^{70}$ Fig. 64 indicates use of the same unit in later buildings.

A matter of special interest, which must be discussed, is the relationship between $\mathrm{A}_{2}$ and
 built later than A2. The evidence of structural alignment (Figs. 60, 6I and 62) indicates that $\mathrm{A}_{4}$ was laid out with direct reference to $\mathrm{A}_{2}$, and confirms the general probability that $\mathrm{A}_{2}$ was not demolished until $\mathrm{A}_{4}$ was completed. It is to be noticed how squarely $\mathrm{A}_{4}$ is set within the enclosure (defined by Palisade 3) attached to A2. Had the construction of A4 proceeded in the manner suggested above in connexion with $A_{2}$, the outer bounds of the enclosure could have remained intact meanwhile; since the building of the east end of $A_{4}$, which necessitated removal of the corresponding end of the enclosure, would thus have been the last stage of the operation. Palisade 5 (Fig. 17) appears likely to have been a temporary extension of Palisade 3, put up at that time.

It will be seen from Fig. 61 that the abandoned sockets of the original door- and roofposts in the northern half of $\mathrm{A}_{4}$ combine with their undisturbed southern counterparts to determine the line of the original longitudinal axis of symmetry. That line, it will be observed, is a precise eastward prolongation of the corresponding axis of A2, demanding for complete symmetry that both the north and south walls of $\mathrm{A}_{4}$ should be aligned with those of its predecessor. The south wall of $\mathrm{A}_{4}$ conforms to that requirement; but the north wall is set too far to the north. This discrepancy, in the truly rectangular western half of the building, is of exactly 2 Yeavering units, which is precisely the distance separating the original northern door-post and roof-post sockets from their replacements. Thus it appears that the original axis was abandoned after building had begun, and that all was then set out in proportion to a new line, I unit further to the north. Two successive post-holes in a pit midway along the line $\mathrm{X}-\mathrm{X}$ show a corresponding adjustment.

That would be a matter of small interest if it could be shown to represent no more than

Fig. 6i. Area A. Building A4, analytical plan showing the timber structures and their metrological response.
a widening of $\mathrm{A}_{4}$ at some time after its completion. That was not the case, however, as is shown with certainty by the occurrence of virgin subsoil wherever the inferred original line for the north wall remained free from earlier and later disturbances. Hence, as the walltrench that would have corresponded with the abandoned northern row of roof-posts was



Fig. 63. General plan demonstrating and extending the presumed significant alignment defined by Posts BX and
AX and the long axes of Buildings A4 ('original') and A2. The red overprint sets this demonstration into the context
of various simple geometrical constructions that may possibly give perspective to modern thought.


Fig. 64. Area C. Diagrammatic plan demonstrating the setting-out line for Yeavering's echelon of ' C ' buildings, and its metrological response in terms of 'Yeavering units'.
never dug, it must be concluded that the adjustments in question were made during the original process of construction.

At first sight, the plan seems to invite the assumption that the north wall-trench was dug in the wrong place and that the rest of the structure was adjusted to conform to it when the mistake was discovered. That argument, however, is found on inspection to run counter to the evidence. On the most general grounds it is scarcely credible that so crass an error would have been allowed to occur when all else had been set up with manifestly painstaking accuracy; and if, as seems virtually certain, the primary intention was to align A4 with A2, the continued existence of A2 would have made an accidental departure from the true line for the north wall unmistakably conspicuous from the outset. Moreover, the relationships between the known features of the original plan (as expressed by the diagonal dotted lines in Fig. 6I) are such as can have resulted only from reference to datum-points established on the correct northern boundary.

While it is likely that one of those datum-points marked the position originally intended for the eastern jamb of the north door, the ground gave no sign that the actual post had ever stood there. On the other hand, the remains of a deep, clean-filled post-pit occurred precisely where the western jamb of the same door should have been located to correspond with all the other original features. Some doubt might be felt as to its identification, in the absence of an eastern counterpart; but, curious though it may seem at first, the fact that one jamb-pit was present and not the other is wholly consistent with the constructional procedure inferred at an earlier stage. For if the walls of the western half of $\mathrm{A}_{4}$ were the first to be built, as has been suggested, erection of the western jambs of both the north and the south doors would have been necessary to complete the lateral tie represented by the line $\mathrm{X}-\mathrm{X}$; whereas the setting-up of the eastern jambs could conveniently have been deferred until the time came for the building of the walls to which they were terminals.

If this interpretation is sound, it follows that the change of plan was not occasioned by a mere error of sighting or calculation in the setting-out of the building; since all is shown to have been laid out rightly, in the first place, for perfect alignment with A2. The possibility must surely be dismissed that what is at issue was no more than the bungling of an incompetent surveyor. Accordingly, the departure from the original plan must be seen as a deliberate act; in which case the purpose deemed to justify so much additional work should appear from comparison of the original and the revised plans (Fig. 65).

The most obvious point of difference between them is that in its final form the width of the building was extended by 2 Yeavering units; but so puny an increase in its capacity cannot have been the sole end of so drastic an alteration at the eleventh hour. The real nub of the matter surely must be connected with the widening of the doorways in the lateral walls, which originally were set out at the same width as those in A2. In a bleak and windy region doorways are not widened without good reason, and the event is certainly not to be regarded as an accidental by-product of structural reorganization. The increase in doorwidth was 2 units, exactly the same as that to which the building was subject overall, and the coincidence suggests that the one enlargement directly gave rise to the other. The question arises immediately why the doorways were not extended sideways at the expense of the lateral walls, leaving the width of the building unchanged. On the face of the matter there seems to have been no need for more than the re-siting of the three pairs of door-posts in


Fig. 65. Area A. Diagrams demonstrating stages I-IV in the construction of Building A4. The obvious change in structural intention, involving the undoing of some work already accomplished, takes place at stage III.
question; but when the precise timing of the alteration is considered in relation to precedent building procedure, the nature and cause of the reorganization can be seen more clearly.

It is self-evident that the change of plan took place after all the roof-posts and most of the door-posts had been set up. Those features cannot be supposed to have stood alone when it occurred, however; for, if that had been the case, the same end could have been achieved far more simply by re-setting each pair of posts two units further apart, and in that way the whole structure could have been kept in symmetry with the original long axis. Whatever view may be taken of the meaning of the axial line and its dependent features, the care and skill given to the whole arrangement suggest that some particular importance attached to it. Slight though it was, the adjustment of the long axis can hardly have been the result of a whim, and must be seen as the only practical solution to a weighty structural problem. Before any wall of $\mathrm{A}_{4}$ had been built, the decision to widen the building would have required no movement of the axial line; but it was moved, and so we must conclude that one or more sections of the long walls already stood in place at that time. It is certain that no part of the north wall-trench was ever dug on the line originally intended; hence any section of long wall that was then in place must have been on the south side of the building. This point has interesting implications. Other considerations have indicated that the work of wall-construction was probably intended to begin in the western half of the building; and in that case it will have been the existence of the western half alone of the south wall that set the pattern of the later adjustments. The southern half of the west wall might also have been standing at the same time; but even a 40 -foot run of massive timberwork (presumably with lateral ties to two of the southern roof-posts, and perhaps connected with the south jamb of the east door, embedded in a trench 8 feet deep), would constitute in itself an overwhelming argument in favour of the form of adjustment that was actually used. The desired increase in width was gained by setting back everything in the northern half of the building.

Now it is an essential part of this argument that the plans of Buildings $A_{2}$ and $A_{4}$ are each to be seen as falling procedurally into primary and secondary halves, and structurally into uniform quarters. There is precise evidence to justify that conclusion. In A2, as we have seen, 8 -unit door-assemblies separating 40 -unit sections of wall gave a total length of 88 units. In A4, the door-assemblies in the long walls are from the outset to units wide, but the sections of wall on each side remain constant at 40 units; and consequently the overall length of the building becomes 90 units. Thus the wider long-wall doorways in $A_{4}$, part of the original plan, were achieved from the beginning simply by wider separation of the two basic 40-unit squares. When we turn our attention from the long-wall doorways to those in the end-walls, we find that in this respect the original plan for $\mathrm{A}_{4}$, was based on the arrangement to be seen in A2: that is to say, east and west door-assemblies 8 units wide, with 16 -unit sections of wall on either side, giving a total width of 40 units. In its final form, the east and west doorassemblies of $\mathrm{A}_{4}$ became io units wide; but the sections of wall on each side were still of the standard 16 -unit length. It is clear, therefore, that just as increased width in the long-wall doorways resulted in a corresponding increase in the building's total length, so the use of wider end-wall doorways produced a wider building. In the one case it was the eastern and western halves of the standard plan that were, so to speak, pulled apart; in the other, the northern and southern halves. At this point it becomes certain that what is involved is a
codified building procedure, in which the anatomy of a hall is conceived of in terms of four absolutely standardized quarters. All doubt is removed by realization that the eight quarters that make up $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ are all of exactly the same size, and that transposition from one position to another, or from one building to the other, would be of no consequence, visually or structurally. It is this codification of procedure that justifies later references to a 'school' of master-carpenters, hall-builders, in Bernicia; for, as will later be shown, the evidence suggests that A2 was the particular sanctum of Aethelfrith the Bernician, and that A4 was built for the Deiran Edwin.

Here, however, we are concerned not with historical identities but with nameless practicalities, and must ask why this structural formula was adopted. The answer to that question will be obvious to anyone who has either pondered the problems inherent in any tradition which called frequently for the erection of large wooden buildings, or has knowledge of the way in which great timber barns were put up in Britain until quite recent times. ${ }^{71}$ At the moment when building begins, every component member of the structure-to-be must lie ready to hand: if so high-flown a plan as that of $\mathrm{A}_{4}$ is quickly to become a soaring reality, there is need for a large labour-force, a communal effort. All must be prepared beforehand, for the sake of economy in labour; and if there is constant social need to build and maintain great halls, so much the more sensible is it to systematize, to standardize, to stockpile timbers for this specific purpose and that - in modern jargon, to prefabricate.

In the simplest terms, then, the difference between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ is merely that between two slightly variant rectangular groupings of four uniform building-blocks. But, since we are faced with the puzzling probability that the series of roof-posts (and some of the door-posts) were set up as the first step in building, we must assume that as soon as each building-block was laid in place it was physically related to those pre-existing features, which were later to give stability to the roof; and in this respect there is a lack of correspondence in detail between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ (Fig. 66). The roof-posts of $\mathrm{A}_{2}$ divide its interior lengthwise in the proportion I:2:I; but those of the 'original' A4 establish a proportion of $3: 4: 3$. Something different was intended from the first, after all, and at first sight it seems that the 'aisles' were to be widened at the expense of the 'nave'. However, it has to be noted that these structural divisions inside the building in neither case correspond exactly with the functional arrangement indicated by other rows of post-holes within the roof-posts. Here again the greater disturbance of $\mathrm{A}_{4}$ by later building throws the burden of demonstration on $\mathrm{A}_{2}$ (Figs. 60 and 66 ). There, parallel rows of relatively shallow post-holes are only to be interpreted as the sockets of wooden piles that had supported a wooden floor. Two rows of smaller, driven posts flank the passageway down the nave, save for a gap between the longwall doors, and show that the floor was not continuous over the whole of the interior but consisted of four separate platforms with revetted inner edges. Thus the functional anatomy of A2 is based on an elongated cross, made by the crossing of a lateral and a lengthwise passage, defined by the sections of raised floor along both sides of the building. Reading from side to side the relationship between the platforms and the longitudinal passage is in the proportion 2: 1:2. The same functional elements are in evidence in $\mathrm{A}_{4}$ (Figs. 61 and 66). Obviously, the platforms were the last features of the plan to be put in place; so that naturally there is no sign of alteration in the pattern of A4's revetment posts. That was set out only when the building at last stood in its final form, falling in the proportion $8: 5: 8$ as against

Fig. 66. Buildings A2 and A4, diagrammatic plans. Left, metrological analysis of A2's internal divisions. Middle, the original scheme for $\mathrm{A}_{4}$ hypothetically carried out. Right, A4 as finally built, demonstrating by comparison the prime effect
of the midstream change in its plan (read $\mathrm{I}_{5}$, Io, $\mathrm{I}_{5}$ as $\mathbf{1 6}$, IO, 16 ). Dimensions expressed in terms of 'Yeavering units'.
the $6: 9: 6$ lateral spacing of the adjusted roof-posts. The comparative proportions are summarized in the following table, in which it is convenient to express all the ratios in whole numbers by giving $I$ the value of 6 in (a) and of 4 in (b):
(a) Lateral structural divisions (division of interior by roof-posts)
(b) Lateral functional divisions (division of interior by passageway)

A2
$\mathrm{A}_{4}$ 'original'
A4 'final'

6:12: 6
6: 8:6
6: 9:6

8:4:8
8:5:8

Thus, structurally, the 'original' A4 proportionately reduced the width of the 'nave', as we see it in A2, by one-third; and the 'final' A4 slightly redressed the balance by cutting the reduction down to one-quarter; but functionally the main difference between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ is (apart from the width of the doors) the both relatively and absolutely greater width of the actual passageway. When $\mathrm{A}_{4}$ was first laid out, its plan gave enhanced importance specially to the north and south doors and the passageway between them; but the change of plan restored the lengthwise passageway to its former position of equality. In both versions of $\mathrm{A}_{4}$, as in A2, the 'aisle-platforms' were elements sixteen units wide, and the advantage ultimately offered by $\mathrm{A}_{4}$ - at the cost of departure from the original long axis about which all had been contrived - was a wider passageway through the length of the building.

Beowulf encourages us to believe that a Dark-age royal hall was a place for feasting and hard drinking. If so, the platforms at the sides of these halls will have carried tables and benches and even perhaps revellers rolling literally in the aisles. The width of the passageways between them, admittedly, may have controlled the speed with which the convivial horn could be refilled, and perhaps it affected the pace of the minstrel on his metrical beat from table to table (with a Sutton-Hoo-type lyre?); but far and away more important, surely, in these arrangements, was provision for ceremonial, and particularly for processional formalities and protocol. In both buildings a space stands free of all features, at the crossing of the passages: in A2, on the western side of the crossing; in A4, on the eastern side. It was there, presumably, that the hearth lay; and in A2 there is, adjacent to it, a group of postholes that recalls at one and the same time the trapezoidal plan of the platform that faced the assembly-structure at Yeavering and the splay-sided plans of early chairs and thrones in other places (Fig. 60, cf. Fig. 55). Whatever it is, it is an entity which seems to bridge or block the passage; and if it is out of symmetry by about a foot (relative to the lines of the platforms on either side) is it not the more possible that its western posts were 'high posts' instituted inaccurately at an early stage - important features which had to be respected, and called for improvisation when the platforms came to be built? It is possible that in this area the floor extended across the whole width of the hall (Fig. 59), and in that case the slight asymmetry would be of very little consequence. The analogy with Building E seems at all events to be supported by the presence of a post, twice replaced or reinforced, immediately behind the putative seat of power. It must remain quite uncertain whether there was a corresponding series of features in A4. There are, as it were, 'spare' post-holes that could have belonged to it; but the cutting of later north-south wall-trenches across the two most likely areas destroyed all possibility of resolving the question.

When we stand back from $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, they can be seen as successive attempts to achieve something akin to that ideal of a hall which is expressed in Beowulf. Lofty and wide-gabled they certainly were; and the solidity and depth of their buttressed, weight-bearing walls, white-plastered inside and probably outside also, suggests that the aim was to induce both the structural properties and the appearance of stone buildings (which were doubtless familiar enough from the surviving Roman structures around the Wall). The possibility that the side-aisles were separately roofed, so that the 'nave' rose above them and could be pierced in the fashion of a clerestory, cannot be ruled out. If that were the true interpretation of the plan, it would explain the presence of the two rows of roof-posts in the sunken Building $\mathrm{D}_{3}$, in which otherwise they seem to be redundant (Fig. 48). Both in $\mathrm{A}_{2}$ and in $\mathrm{A}_{4}$, there is indication that one end-wall doorway may have been at some height above ground-level, which would imply either that there was a flight of steps on both sides of the threshold (as it might be, to prevent a precipitate rush into the hall) or that this was the entrance to an upper storey or gallery (Fig. 59). The slightly greater depths of the end-wall trenches in A2 and $\mathrm{A}_{4}$ should also be noted. The presence of galleries, structures of the hay-loft type, is particularly to be suspected in those buildings with internal partitions set fairly close to end-walls (A2, $A_{4}, C_{2}$ ?, $C_{3}, D_{4}, D_{5}$ ). Overhead platforms could readily be supported on lengthwise joists between the two lateral walls; and, useful in themselves, would act as ceilings to the compartments below. Thus only the middle section of the hall would be open to the full height of the roof. The arrangements at the east end of $\mathrm{D}_{5}$ (contemporary with $\mathrm{A}_{4}$ ) illustrate the general point very well, although they may represent a variant form. The middle pair of external buttresses against the east wall is aligned with two pairs of large post-holes inside the building, and all suggests that there was an east door; but the wall-line runs continuously across the end of the building, and any door there was must therefore have existed above ground-level. The western pair of post-holes inside the building is equivalent to the doorposts in the partition-walls of $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ and (unless it was connected with partition-trenches so exceptionally shallow as to have been ploughed away completely) could indicate that in this case a loft - or even a tower - was required, but that there was no wish to make a separate chamber below. On the whole, then, it is as likely as not that loft-like structures were built over the partitioned areas at the ends of $A_{2}$ and $A_{4}$; and if those terminal compartments were indeed antechambers of lesser height than the main part of the hall, their resemblance to the 'annexes' of later buildings (e.g., $\mathrm{A}_{3}(\mathrm{a}), \mathrm{Ar}_{\mathrm{I}}(\mathrm{b})$ ) is so much the greater. The difference in their plans, that is to say, is probably more a matter of constructional procedure than of functional variation.

So far this discussion has centred on the evidence for the setting-out and construction of the great halls $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ individually, and other buildings will be considered in the same way. First, however, the relationship between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ must be further examined.

It has been shown that $\mathrm{A}_{4}$ was certainly built later than $\mathrm{A}_{2}$, and its greater formal development and constructional assurance allow us to suppose that $\mathrm{A}_{2}$ had by that time stood for a number of years. It has been pointed out, too, that A2 appears to have been left in place while the construction of $\mathrm{A}_{4}$ was in progress, and on the face of the matter that circumstance might alone be held to account for the extraordinary accuracy with which the main axis of the old building was extended to form the basis of the new. Nevertheless, the reason for what was originally so slavish an adherence to the old line has still to be sought.

At first sight it appears simply to be tidiness, something akin to the feeling for order and system displayed in the setting-out of Roman forts and their buildings; which is not only of some interest in itself but also increases the likelihood that the two buildings were intended to stand together for a time (even, perhaps, with the gap between them roofed over). But, although such considerations must have had their effect, the very curious features which will next be noticed give a strong hint that the official surveyor worked from permanent datumpoints whose reference was not wholly mundane.

Those features, apparently the true basis of the initially common axial alignment of A2 and A4, are shown in Figs. 25 and 32. Grave $A X$ and Post $A X$ (Fig. 61), earlier than or more probably contemporary with A4, lie squarely on the axial line. Accurate production of the same line eastwards (Fig. 62) shows that it passes almost exactly through the centre-point of Post $B X$, bisecting Grave $B X_{I}$ on its way.

This alignment was most strictly checked on the ground in the course of the excavation and there is absolutely certainty as to the accuracy of the observations and measurements. Taken at its face value, the alignment indicates that both $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, successively, were set out by reference to Post BX, to which no other practical function can be attributed. Post AX and Grave AX appear to remove the matter decisively from the realm of chance; and however embarrassingly close we seem to tread to the Old Straight Track, it is difficult to deny the reality of this curious arrangement in the face of so complex a series of coincidences.

The western terminal of the alignment cannot be determined with any confidence. Possibly it was no more than a surveyor's datum-peg established on or just outside the line of A2's west wall; but it could be meaningful that when the 'true' axial line is produced westward from A2 it passes to the north of Post E, cuts through Building D2 (close to its deposits of ox-skulls) and meets the southern side of Post $\mathbf{D}$ (Fig. 63). Similar extension of the actual long axis of A2's western half brings it within a few inches of Post E.

The alignment of $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ by reference to at least one permanent datum-point is indicated by the evidence, and (whatever the underlying meaning of Posts $\mathrm{B}, \mathrm{D}$ and E may have been) this procedure is clearly akin to that used in the setting-out of Building E. At a later stage it will be shown that the string-graves and the fenced cemetery around Building B also appear, subsequently, to have been responsive to the presence of Post $B$, and some attempt will be made to interpret the meaning of that and the other free-standing posts at Yeavering.

## Buildings $\mathrm{Ci}-4$ and $\mathrm{A}_{3}$

Buildings $C_{r-4}$ give a'more demonstrably practical instance of the use of alignment in the collective organization of buildings (Fig. 64). Here it is evident that the structures were set in echelon from a common diagonal base-line, by means of off-sets at regular intervals of 80 Yeavering units. The north-east corner of the main chamber of A3 was set exactly on the same line, and there is accordingly a strong presumption that this building was contemporary with the northern group. If the metrological interpretation of this situation is assumed hypothetically to be valid, the position of the presumed point of origin of the physical baseline (a post-hole 8 Yeavering units or $7 \frac{1}{2}$ statute feet north-east of $\mathrm{A}_{3}$ ) is consistent with $\mathrm{A}_{3}$ having been the primary structure; for in that case it would have been necessary to set the marker-peg at some such slight remove in order to give free play to the cord or chain,


Fig. 67. Area A. Buildings $\mathrm{A}_{5-7}$ inclusive, showing their response to metrological analysis in terms of 'Yeavering units'.
presumably stretched from it, which otherwise would have been fouled by the building's external posts.

The irregularities of the individual plans of $\mathrm{Gr}-4$ and $\mathrm{A}_{3}$, on the other hand, do not lend themselves to detailed extension of this metrological inquiry. Nevertheless, analysis of their axial dimensions, which may be assumed most closely to represent the intentions of the builders, does reveal sufficient correspondence to confirm that the Yeavering unit was used in the setting-out of their plans. In Fig. 38, for example, the width of C 2 is seen closely to conform to 20 units; and in Fig. 68 the aligned east-west walls of the annexes of $\mathrm{A}_{3}$ (a) are shown to correspond (in one case exactly, and in the other approximately) with the ro-unit divisions on the lateral axis. Otherwise the dimensions of these buildings are unresponsive to analysis in terms of tens of units. Possibly they are approximately expressive of multiples of four units, which are characteristic not only of the setting-out line that controlled the siting of this group of buildings but also of the plans of $\mathrm{A}_{2}$ and A 4 . The widths, and in most cases the thicknesses, of the wall-timbers in $\mathrm{A}_{3}$ and $\mathrm{CI}_{\mathrm{I}-4}$ closely correspond to whole units and half or quarter units of $\mathrm{I} \cdot{ }^{\circ} \mathrm{O}$ statute inches; but, whatever the actual metrology, it is apparent from the plans of these buildings overall that their makers were not obsessed by any great desire for precision in following the lines set out for them. Whereas all in $\mathrm{A}_{4}$ suggests the almost constant presence of a vigilant surveyor (even, perhaps an architect), harassed though he may have been by his patron's change of mind, here there is some contrast between the precision of the collective setting-out of the group as a whole and the less disciplined appearance of its individual members. There appears to be no proportional relationship between the wall-to-wall widths of these later buildings ( $\mathrm{C}_{2}, 20$ units; $\mathrm{C}_{3}, 27$ units; $\mathrm{C}_{4}, 29-30$ units; and $\mathrm{A}_{3}(\mathrm{a}), 35$ units); but there is a faint possibility that those particular dimensions answer to ancient legal definitions cited in Chapter 5, p. 204.

Constructionally, $\mathrm{C}_{2}, \mathrm{C}_{3}$ and $\mathrm{A}_{3}(\mathrm{a})$ have several features in common with $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, of which the use of foundation-trenches, the general type of wall-construction and the opposed doors in the long walls are the most obvious. It is particularly noteworthy that the double-square plan appears throughout. In Fig. 38, C2 is seen to reproduce this and other essential features of $\mathrm{A}_{4}$; and the broken-backed appearance of $\mathrm{C}_{4}(\mathrm{~b})$ testifies to the reality of the constructional division.

At the same time, there are important points of difference that distinguish these buildings from $A_{2}$ and $A_{4}$. Especially notable is their emphasis on the longitudinal axis, exemplified in $\mathrm{A}_{3}{ }^{(a)}$ (Fig. 68) by the alignment of the door-posts of the lateral walls, and in $\mathrm{C}_{4}$ (b) (Fig. 38) by the presence of a row of ridge-posts. Special provision for direct support of a roof-ridge is presumably indicated also by the off-centre settings of the doors in the lateral walls of $\mathrm{C}_{2}, \mathrm{C}_{3}$ and $\mathrm{C}_{4}(\mathrm{~b}) . \mathrm{C}_{3}$ is a variant, and of special interest in that it seems to show that the characteristic type of wall-construction (Plate 68) could carry the roof without the aid of internal posts. That is to say that the double row of roof-posts typical of the previous phase is all the more likely to be representative of a special development of the 'nave', of which here there is no sign. $\mathrm{C}_{4}(\mathrm{~b})$, on the other hand, shows the ultimate decline of the wall as a load-bearing structure. The 'annexes' of $\mathrm{A}_{3}, \mathrm{Ar}_{\mathrm{r}}(\mathrm{a})$ and (b), B and $\mathrm{C}_{4}$ are possible constructional variants from the form of antechamber seen in $A_{2}$ and $A_{4}$, as has been suggested above. (Metrological analysis of $\mathrm{A}_{3}(\mathrm{~b})$ is offered in Fig. 69.)
$\mathrm{D}_{4}(\mathrm{a})$ and $\mathrm{D}_{5}$ (Figs. 53 and 54) share the characteristics of $\mathrm{A}_{4}$ and $\mathrm{A}_{\mathrm{I}}(\mathrm{a})$, and the

Fig. 68. Area A. Building $\mathrm{A}_{3}(\mathrm{a})$, its timber structures and their response to metrological analysis in terms of 'Yeavering units'.

Fig. 69. Area A. Building $\mathrm{A}_{3}$ (b), its timber structures and their response to metrological analysis in terms of 'Yeavering units'. Red overprint shows distribution of clinch-nails and location of gold coin.
possibility that they carried galleries or lofts has been discussed above in connexion with $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$.

Buildings Di, D2 and $D_{3}$
Of the two buildings with sunken floors, $\mathrm{GI}_{\text {I }}$ (Fig. 37) has been related to the group discussed above. The other, $D_{3}$ (Fig. 48), is related by its plan to Buildings $D_{r}(b), D_{2}(a)$ and $D_{2}(b)$ (Figs. $4^{2}$ and 43 respectively). The absence of doors in the lateral walls is a feature common to these four buildings, and in each the opposition of the doors in the long walls implies the same constructional dichotomy that has been noticed throughout. All are aisled; but whereas the roof-posts of $\mathrm{D}_{\mathrm{I}}(\mathrm{b})$ are especially remarkable for their lateral irregularity, the dispositions of those of $\mathrm{D}_{2}(\mathrm{~b})$ and $\mathrm{D}_{3}$ are uniformly more symmetrical. However, each building also has two centre-posts for support of the ridge-pole and lacks end-wall doorways; so that the progressive, formal development of the nave to be seen in $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, and in the contemporary minor halls with four doorways, appears not to have begun until after the time when $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$ were first built. The regular rows of seemingly redundant roof-posts in $\mathrm{D}_{3}$, on the other hand, are inexplicable save as the main supports of a nave with a roof that was structurally distinct from the covering of the aisles. When their mutually consistent alignments are taken into consideration with all the other evidence, there is good reason for supposing that $\mathrm{D}_{1}(\mathrm{~b}), \mathrm{D}_{2}(\mathrm{~b})$ and $\mathrm{D}_{3}$ were all in existence at the same time. $\mathrm{D}_{2}(\mathrm{~b})$ is related on the one hand, by its general characteristics, to $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ and to its own immediate predecessor, $\mathrm{D}_{2}(\mathrm{a})$; and on the other, by the sophisticated technique of its wall-construction,


Fig. 70. Diagram comparing timber thicknesses characteristic of successive structural phases (see Fig. 71).
to $\mathrm{A}_{2}$ or possibly $\mathrm{A}_{4}$. The timber walls of $\mathrm{Dr}(\mathrm{a}), \mathrm{Dr}_{1}(\mathrm{~b})$ and $\mathrm{D}_{2}(\mathrm{a})$ all appear to have been of more primitive, palisade-like character.

The general lack of precision in these early buildings makes them unsuitable subjects for metrological analysis; and, while the evidence is, as far as it goes, consistent with the Yeavering unit having been employed in their settings-out, it is not sufficiently conclusive to justify elaborate demonstration. Nevertheless their timber-thicknesses are included in Fig. 70.

Buildings A5 and D6
The manifestly early minor building $\mathrm{A}_{5}$ (Figs. 17 and 67 ), however, provides more conclusive and concise evidence in this respect, as its greatest dimensions correspond to $20 \times 30$ Yeavering units. This building is related to the fragmentary D6 (Fig. 54) not only by its size and proportions, but also by the probability in both cases that the main frames of the walls were panelled with wattlework.

## Buildings A6 and A7

Little can usefully be said about Buildings $A 6$ and $A 7$, which are laid out for comparison with $\mathrm{A}_{5}$ in Fig. 67. There is a rough similarity in their proportions; but the incompleteness of their remains does not allow their structural character reliably to be assessed, beyond the essential point of their having been based on series of separate post-holes. It seems most likely, however, that they were of post-and-panel construction, with wattle-and-daub walls, and that some of their post-holes are representative of later repairs. It is evident from Fig. 17 that these are the earliest remains of habitable structures found on the site; and there is no basis whatsoever for equating them in time with the somewhat similar structures associated with Building D2 (Fig. 46 (A-E)).

To sum up, the structural sequence at Yeavering seems to tell an authentic story of local or regional evolution in building technique. At the outset there are small buildings set in separate post-holes. Then similar buildings are put up in foundation-trenches like those of the palisaded enclosure nearby. Palisade-type walls follow when there is need to construct the first large, hall-like, buildings on the site. From that moment onward a sophisticated and original style emerges, in which systematic use is made of standardized components. After the first township is devastated a variant form of building appears; but it seems that from beginning to end the land-surveyors at Yeavering used a uniform standard of measurement, in which multiples of ten and four or eight form the basis for calculation. The system of mensuration may be most simply expressed as follows ( $\alpha=$ the 'Yeavering unit' or 'foot' of ir $\cdot 05$ inches) :

$$
\begin{aligned}
& 8 \alpha=\mathrm{I} x \\
& 5 x=\mathrm{I} y
\end{aligned}
$$

Thus the sides of the component squares of each of the greatest halls, A2 and the 'original' $\mathrm{A}_{4}$, were of $1 y$; the setting-out points for $\mathrm{Cl}_{1}-4$ were $2 y$ apart; $\mathrm{C}_{4}$ was $4 y$ from the primary datum beside A3, and the total length of the setting-out line was ioy. An outstanding advantage of the 40 -unit measure, $y$, is its flexibility: it is divisible by $2,4,5,8,10$, and 20 , and lends itself to such calculations in terms of both quarters and fifths as are here in evidence.

| Style | Type | General Description | Foundation | External doors $\mathrm{LW}=$ Long walls $\mathrm{EW}=$ End-walls |
| :---: | :---: | :---: | :---: | :---: |
| IA | 1 | Small house or hut | Separate post-holes | Not identified |
| IB | 2 | Small house or hut | Shallow wall-trench | Probably 4 opp'd. LW \& EW |
| II | 3 | Minor hall | Shallow wall-trench | 2 opp'd. LW |
| Related to II | 4 | House or minor hall with sunken floor | Slot bounding sunken floor | $\begin{aligned} & 2 \\ & \text { opp'd LW } \end{aligned}$ |
| IIIA | 5 | Minor hall | Deep wall-trench | 2 opp'd. LW |
| IIIB | 6 a | Major hall | Deep wall-trench | 4 opp'd. LW \& EW |
| IIIC | 6 b | Major hall | Extremely deep wall-trench | 4 opp'd. LW \& EW |
|  | 7 | Minor hall | Deep wall-trench | 4 opp'd. LW \& EW |
| IV | 8 | Major hall | Deep wall-trench | $\begin{aligned} & 4 \\ & 2 \text { opp'd. LW } \\ & 2 \text { off-centre EW } \end{aligned}$ |
|  | 9a $9 \mathrm{~b}$ | Minor hall <br> Minor hall | Deep wall-trench <br> Deep wall-trench | 4 <br> 2 opp'd. LW <br> 2 EW (one or both off-centre) <br> 4 <br> 2 opp'd. LW <br> 2 EW (one or both off-centre) |
| Related to IV | 10 | Hut with sunken floor | Plank slots and sole-plates bounding sunken floor | $\stackrel{\mathrm{I}}{\mathrm{LW}}$ |
| V | II | Major hall | Less deep wall-trench | 4 <br> 2 opp'd. LW <br> 2 EW (one or both off-centre) |
|  | 12 | Minor hall | Shallow wall-trench | ```4 2 opp'd. LW 2 EW (one or both off-centre)``` |

Fig. 71. Chart defining the sequence and characteristics of building styles at Yeavering.

| Wall-Construction Av. $=$ Average thickness | Other Features, Orientation and Proportion | Instances |
| :---: | :---: | :---: |
| Post-\&-panel (wattle-\&-daub) | E.-W; $\mathrm{I} \frac{1}{2}: \mathrm{I}$ proportion (approx.) | A6; A7; ?A8 |
| Post-\&-panel (wattle-\&-daub) | E. -W; $\mathrm{I} \frac{1}{2}$ : 1 proportion | $\mathrm{A}_{5} ; \mathrm{D} 6$ |
| Very heavy (Av. $7 \frac{1}{2}^{\prime \prime}$ ), squared, vertical timbers, all resting on bed of trench | Irregularly paired roof-posts; ridge-posts; external posts. N.-S.; 2 : i proportion (approx.) | $\begin{aligned} & \mathrm{Dr}_{1}(\mathrm{a}) ; \\ & \left.\mathrm{Dr}^{2} \mathrm{~b}\right) ; \\ & \mathrm{D}_{2}(\mathrm{a}) \end{aligned}$ |
| Heavy posts with panels probably of wattlework | Regularly paired roof-posts; ridge-posts; external post-holes (sockets for ends of rafters?). N.--S.; 2: I proportion (approx.) | $\mathrm{D}_{3}$ |
| Very heavy (Av. $7 \frac{1}{2}{ }^{\prime \prime}$ ), squared, vertical timbers, alternately resting on bed of trench | Regularly paired roof-posts, large sockets for external posts. N.-S.; $2: 1$ proportion (approx.) | D2(b) |
| Very heavy (Av. $7 \frac{1}{2}{ }^{\prime \prime}$ ), squared, vertical timbers, alternately resting on bed of trench | Regularly paired roof-posts; 2 internal partitions; plank floor; large external posts. E.--W.; 2 ; I proportion (approx.) | A2 |
| Heavy (Av. $5 \frac{1}{2}$ "), squared, vertical timbers, alternately resting on bed of trench | Regularly paired roof-posts; 1 internal partition; probably plank floor; extremely large external posts. E.-W.; 2 : I proportion (approx.) | $\mathrm{A}_{4}$ |
| Heavy (Av. $5 \frac{1}{2}$ "), squared, vertical timbers, alternately resting on bed of trench | Paired roof-posts, large external posts. E.-W.; 2: I proportion (approx.) | $\begin{aligned} & \mathrm{AI}(\mathrm{a}) ; \\ & \text { ? } \mathrm{BC} ; \\ & \mathrm{D}_{4}(\mathrm{a}) ; \mathrm{D}_{5} \end{aligned}$ |
| Medium (Av. $4 \frac{1}{4}^{\prime \prime}$ ), plank-like, vertical timbers, alternately resting on bed of trench | Annexe at each end. 2 internal partitions; internal doorways staggered to align jambs centrally; external posts. E.-W.; 2 : i proportion (excl. annexes) | $\mathrm{A}_{3}(\mathrm{a})$ |
| Medium (Av. $33^{\prime \prime}$ ), plank-like, vertical timbers, alternately resting on bed of trench | Annexe at one or both ends, external posts. E.-W.; 2: 1 proportion (excl. annexes) | $\begin{aligned} & \mathrm{Ar}(\mathrm{~b}) ; \\ & \mathrm{C}_{4}(\mathrm{a}) \end{aligned}$ |
| Medium (Av. $3 \frac{3^{\prime \prime}}{4}-4^{\prime \prime}$ ), plank-like, vertical timbers, alternately resting on bed of trench | Without annexes. With or without partitions External posts. E.-W.; 2 : i proportion | $\begin{aligned} & \mathrm{B}(\mathrm{a}) ; \mathrm{C}_{2} ; \\ & \mathrm{C}_{3} ; \mathrm{D}_{4}(\mathrm{~b}) \end{aligned}$ |
| Medium (Av. 3"), plank-like, vertical timbers resting on sole-plates: wattle-\&daub lining in planked slots | External posts (sockets for ends of rafters) | Ci |
| Medium (Av. 3"), vertical timbers at intervals; occurrences of clinch-nails possibly indicate addition or partial substitution of $\mathrm{I} \frac{3^{\prime \prime}}{}{ }^{\prime \prime}-2^{\prime \prime}$ planks | Annexe at both ends. Internal partitions with staggered doors; external posts. E.-W.; 2 : I proportion approx. (excl. annexes) | $\mathrm{A}_{3}(\mathrm{~b})$ |
| Widely separated vertical posts, with $1^{\frac{3}{4}}{ }^{\prime \prime}-2^{\prime \prime}$ planks intervening. Clinch-nails in AI(c) | Annexe at one end. Ridge-posts in $\mathrm{C}_{4}(\mathrm{~b})$; external posts. E.-W.; 2 : I proportion approx. (excl. annexe) | $\begin{aligned} & \mathrm{AI}_{\mathrm{I}(\mathrm{c}) ; \mathrm{B}(\mathrm{~b}) ;}^{\mathrm{C}_{4}(\mathrm{~b})} ; \mathrm{i} \end{aligned}$ |

## (a) Types and Styles

It is possible at this stage to formulate the various types of habitable building found at Yeavering, and to group them experimentally in terms of successive structural styles, ${ }^{72}$ in a single table (Fig. 71).

Of the two buildings with sunken floors, Ci has been included in the table merely for the sake of completeness, for it is hardly to be related typologically to the other structures with which it was laid out (save perhaps in the single detail that its walls were made of squared planks); whereas $D_{3}$ has special structural features that relate it firmly to the main series and more strictly justify its inclusion.

Building E is set apart from the rest by its special character. It does not contribute directly to the establishment of the main typological sequence, but waits to be judged by reference to it.

The characteristic details of each type of building, E excepted, will be sufficiently apparent from Fig. 7I ; but the essential nature of each style there distinguished calls for more explicit definition:

Style $I A$ is merely a convenient term which is applied to the small, squat, wattle-and-daub buildings founded in separate post-holes. It serves only to express the relationship in plan and materials between those buildings and the trench-built structures of Style IB.

Style IB is characterized by the use of a structural framework to which wattle-and-daub walls are added as mere weather-screens, and by the setting of the whole into shallow foundation-trenches (in contradistinction to the separate post-holes that are the basis of the otherwise similar structures of Type r , dignified above by the term Style IA).
Style $I I$ appears to represent the initial emergence of the form in which solid, load-bearing walls are associated with a plan divided into two squares by opposed doors in the long walls. Here the heavy wall-timbers are set in simple palisade-fashion into shallow foundation-trenches, and appear to be buttressed by inclined outer posts.
Style IIIA is marked by the appearance of the sophisticated 'up-and-down' wall-construction, with its attendant implication of jointing between the individual timbers; by a notable increase in the depth of the foundationtrench, and generally by more assured command of both form and medium. At this point, the evidence for external buttressing becomes unmistakably clear.
Style IIIB, while almost identical in point of wall-construction with IIIA, is distinguished from it by the addition of opposed doors in the end-walls. There would seem to be a real transition here, since the 2 -door plan characteristic of the halls of Styles II and IIIA makes no further appearance on the site.

Style IIIC represents the mature exploitation and refinement of this form of building. A reduction in the thickness of the walls is counterbalanced by their deeper foundation and by the further development of the external posts. It appears, not least from the extraordinary precision that was achieved, that here the problems of form and material had been resolved and mastered.

Style IV, while clearly akin to Style III, represents a variant line of development. IV arrives, as it were, suddenly and complete; sharply differentiated from Style III by diversification of plan, lighter construction, and asymmetrical placing of the doors in the end-walls. Its relationship to III is such that it might well be expressed, if
not explained, by postulating that from the moment of transition between II and III the emergent tradition was developed, independently and divergently, in two separate places.

Such a hypothesis is indeed tenable, as it can be shown that the basic elements of both Styles IIIB and IV were present in combination at the putative point of budding-off. In Style II, ridge-posts are present in addition to somewhat irregularly paired roof-posts; but in III, whereas ridge-posts are not in evidence, the pairs of roof-posts are given greater emphasis and symmetry and the doorways in the end-walls stand in evident relationship to them. In Style IV the alternative line of development has been followed: the concept represented by the ridge-post is dominant, and has determined the asymmetrical setting of the additional doors.

On the other hand, the 'annexes' that appear in Style IV seem in a real sense to be an innovation to the site, representative perhaps of some external influence although conceivably no more than a constructional development from the antechambers of Styles IIIB and C.

Style $V$ might appear to mark a simple devolution from Style IV, but it is better regarded as a flimsier alternative form of construction. Its separate identification is warranted by the indirect evidence of plank-construction given by clinch-nails. Essentially there is a reversion to the principle underlying Style I, in that the wall is no longer conceived of as a solid, load-bearing structure, but as a screen covering a structural framework. This kind of building is likely to have existed elsewhere concurrently with Style IV, and its presence here is probably a sign of the township's ultimate decline.

## (b) Phases

The preceding formulation of structural styles allows the remainder of Yeavering's buildings to be related to the key-sequence given by the structural intersections in Area A (Fig. 58). Accordingly, a correlation of the whole in these terms is set out diagrammatically in Fig. 72. It is certain that the styles defined were successive; and the main question now is the extent to which the appearance of each style in turn can be used to define phases of time.

The absolute priority among the trench-built structures given to the Style I buildings is a matter of the strongest probability but it is not a proven fact. It is readily allowed, but not fully determined, by the stratigraphical evidence. Structural intersections demonstrate conclusively that $\mathrm{A}_{5}$ was earlier than $\mathrm{A}_{2}$ (Fig. 15), and that D6 was earlier than $\mathrm{D}_{5}$ (Fig. 54); but there is nothing to show what interval of time separated the earlier from the later building in each case, nor can the life-spans of $\mathrm{A}_{5}$ and D 6 be gauged. The neat way in which A2's palisaded enclosure contains the remains of the earliest structures in Area A may be due to chance, but it could be taken to suggest that $\mathrm{A}_{5}$ had survived long enough to influence the choice of site for $\mathrm{A}_{2}$; even so, however, it would be perfectly possible for $\mathrm{A}_{5}$ then to have been standing for some decades. $\mathrm{A}_{5}$ and D6 are markedly different in form and material from the later buildings that cut into their remains, and in both those respects they are closely related to the demonstrably even earlier A6 and A7. That relationship forbids the conjecture that $\mathrm{A}_{5}$ and D 6 were simply temporary huts for the workmen who put up the earliest halls on the site (i.e., DI and $\mathrm{D}_{2}$ ). Whatever the series of small, early buildings may have been used for, it seems safe to take the actual relationship between $\mathrm{A}_{6}$ and $\mathrm{A}_{5}$ as being at all events symbolic of an evolutionary transition from the use of separately founded posts to the adoption of the foundation-trench. These buildings may or may not have been put up at the very first moment of change: it is conceivable that both techniques were familiar before either appeared at Yeavering, and accordingly the technical difference between A6 and $\mathrm{A}_{5}$ might be indicative simply of enhanced status. Even so, that in itself would not be meaningless. The essential feature of Yeavering's archaeological history, up to the end of IIIC, is a
 appearance of each structure is denoted by heavy characters.
steady progression in status; and on that basis, too, acceptance of $\mathrm{A}_{5}$ and D 6 as the earliest trench-founded buildings on the site seems to be wholly justified.

It is perfectly clear that the great palisaded enclosure was finally rebuilt while the great hall $\mathrm{A}_{4}$ was standing (Style-phase IIIC), and before the first of the two fiery destructions of the township. By that time the enclosure had passed through at least four or five structural phases, which must involve a span of time at the very least of half a century, probably of more than a century, and not inconceivably of over two centuries. During the penultimate phase, the former site of $\mathrm{A}_{5}$ was occupied by $\mathrm{A}_{2}$, so that Buildings $\mathrm{A}_{5}$ and D6 must have been contemporary with or earlier than the antepenultimate phase of the enclosure; and the soundness of that chronological equation is fully confirmed by the resemblance between the relatively wide, shallow trenches of the fort's nominally second phase and those of Buildings $\mathrm{A}_{5}$ and D6. That interconnexion gains further strength from the fact that the same, extremely gross, type of pottery (Fig. 80) that occurs in the palisade-trenches is characteristic also of $\mathrm{A}_{5}, \mathrm{D} 6, \mathrm{~A} 6$ and $\mathrm{A}_{7}$. It is to be concluded, then, that in Area A a single small building, several times renewed (first A6, then $\mathrm{A}_{7}$, and finally $\mathrm{A}_{5}$ ) stood for some time during the middle period of the Great Enclosure's history. The period of time that may have separated the demolition of $\mathrm{A}_{5}$ and the construction of $\mathrm{A}_{2}$ is a matter that will be discussed in Chapter 5, in which all questions of absolute dating are considered. The nature and even the identity of Building A8 remain obscure, and all that can be said is that it is a structure of earlier date than Post AX.

That IIIB and IIIC are distinct in time, as well as in style, is beyond question; but there can be no such certainty that IIIA was actually earlier than IIIB (i.e., that Building D2(b) was put up before A2). Stylistically, the distinction is justified by the transitional character of Building $\mathrm{D}_{2}(\mathrm{~b})$; but the curious way in which this building was constructed around the walls of $\mathrm{D}_{2}$ (a) (Figs. 43 and 45) obviously gives a context for anachronism. It was almost inevitable that in this process $\mathrm{D}_{2}(\mathrm{~b})$ would preserve the original two-door plan of $\mathrm{D}_{2}(\mathrm{a})$. The crucial feature is the close correspondence between the wall-construction of $\mathrm{D}_{2}(\mathrm{~b})$ and A2. In such circumstances it might be dangerous to assume that the stylistic distinction between IIIA and IIIB necessarily involves any great separation in time, and the matter is best resolved by their conflation into the single stylistic phase, IIIAB, shown in Fig. 72.

A margin of uncertainty attaches also to the point of origin of Building E, relative to the rest. The construction of its original 'walls' is closely and convincingly matched in Stylephase IIA (e.g., in Building DI (b)). The deepest among its foundation-trenches, on the other hand, bear comparison with those of Building A2 and could mark the onset of IIIAB; but the special character, scale and structural problems of this great, theatre-like building would obviously demand in any period an exceptional - even perhaps an unprecedented - depth of foundation. Hence, while it is possible that this structure was erected at about the same time as Building A2, it is probable that its relatively primitive wall-construction is actually an authentic mark of earlier origin. It is quite certain that Building E was in existence during phase IIIAB, at all events; for the new 'walls' that were added during its subsequent enlargement are in all respects characteristic of Style-phase IIIC (as seen in Building A4).

The division between Style-phases IIIC and IV is clearly a real one. It is a line drawn with fire across the whole range of structures that the evidence shows to have stood in IIIC. The manifest improbability of each and every structure having been burned down separately,
on different occasions, is fully borne out by the uniformity with which rebuilding was carried out in the new style of IV; and the nature of the damage to Building E, which will be considered in (c) below, further encourages the view that Phase III was ended abruptly by a single devastating fire fanned by a westerly wind. This, then, is taken to be a significant datum-line.

The end of Style-phase IV, in turn, is similarly defined. All but three of its buildings were destroyed by fire. Of these, C 2 is shown decisively to have been abandoned during the lifetime of its neighbour, $\mathrm{C}_{3}$; and the systematic demolition of $\mathrm{C}_{3}$ and E , without trace of fire, indicates that they too were simply removed as soon as they had outlived their purposes. The very fact of their demolition, indeed, sets them apart from the structures of the next and final phase, which appear to have been left to rot in situ; and it suggests that their removal was part of a gradual process of contraction which was merely accelerated by a second disaster. The destruction of all the buildings of Phase IV that were still in use can only be explained in terms of a single catastrophe, since every one of these buildings was burned down while a north-easterly wind was blowing. And again, as will be shown in (c), below, the plan of the much smaller township of Phase V was evidently conceived and executed at one blow.

Overall, the evidence supports the basic assumption that the structural styles, as defined closely correspond with actual, successive phases in the history of the site. Now the function of individual buildings and of the township as a whole may be considered in the context of events.

## (c) Functions and Events: summary and interpretation

The relative chronology of the structures at Yeavering has been examined in the foregoing sections. At this point it becomes possible to translate that structural sequence into a summary narrative of events, and to discern against that background the functions of individual buildings; from which understanding of the raison d'être of the township as a whole may follow. The considerations here are deliberately confined to the internal evidences, so that inferences drawn directly from what was found in the earth may remain distinct from those that will later proceed from examination of external, written, testimonies.

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## Phase I $(A \mathcal{E} B)$, Figs. 73 and 74

There is every reason to suppose that when Yeavering's great palisaded enclosure was built, the whaleback stood bare of trees; and the site may be envisaged as having been at that time a smooth, grassy expanse, subject perhaps - as today - to colonization by gorse and broom. Widely scattered prehistoric cremation-burials, a barrow and a small stone circle, show that it is unlikely to have been heavily overgrown in still earlier times; and any scrubby growth the sandy soil may have supported must have been removed when the 'Celtic' field-system

Fig. 73. Yeavering: from the Secondary Neolithic to the local end of the Roman Iron Age. Modern contours of site shown by blue underprint. Numbered spots represent cremation-burials catalogued in Appendix III. First phase of Great Enclosure possibly begins within lifetime of 'Celtic' fields and fieldway. Stippled area at W. end of fieldway denotes ploughed-out settlement-site presumably in use during the pre-Roman and/or Roman Iron Age.

Fig. 74. Yeavering, Phase I of 'post-Roman' development. The Great Enclosure now certainly in existence. Small buildings are put up outside it. Two monuments of the local past survive conspicuously: one, the Western Ring-ditch, is transformed from a stone circle - formerly attractive of cremations - to a wooden rectangle housing inhumations; while the other, the Eastern Ring-ditch, is taken into the bounds of the Great Enclosure.
was laid out. Since the site of the stone circle clearly must have been left outside the new ploughlands in any case, there is no reason to doubt the evidence which suggests that the substitution of wood for stone was the work of a later generation, on the eve of the township's inception. Presumably while the ground was still under plough, several unurned cremations were inserted into gullies that separated one field from another (the dating of a bead associated with one of these cremations will later be seen to suggest that the site was still under cultivation at a late stage in the Roman Iron Age); and there is ground for suspicion that an early version of the Great Enclosure came into place either while the fields were still being ploughed or fairly soon after they were abandoned. Evidently the ditched round-barrow survived as a visible monument, since the siting of the enclosure and a series of free-standing posts involves continuing references to its existence. Eventually, the barrow - enclosed within the palisades - was made to carry a free-standing post which was a fixed point for 'ritual' observances.

While it must be emphasized once again that the earliest phases of the fort-like 'Great Enclosure' may not as yet have been fully elucidated, it is nevertheless clear that any evidence still to be found can show only that the history of this laboriously perpetuated structure was even longer and more complicated than it appears at present. As they stand, the data are surely sufficient to allow the question of its function to be assessed? Two points are crucial. First, although the Great Enclosure was built at a key-point on a perennially useful natural route, where its makers could (if they wished) exercise some kind of control over traffic in normal conditions, the defensibility of its situation in conditions of war is and must always have been of an extremely low order. Thus it would be absurd to suppose that this remarkable enclosure was created and maintained simply as a military work. Secondly, it is reasonably certain that the most distinctive feature of Yeavering's 'Great Enclosure' is its internal lack of such dwellings and structures as have been found outside its walls: there is no sign that it was ever a centre of habitation. Obviously this expensive shell was not created or maintained aimlessly: logical simplicity requires merely that it existed as a stoutly fenced place that gave security to some vital, communal activity or institution that called for a large, enclosed space without permanent buildings. Viewed as a communal cattle-corral, the Great Enclosure becomes entirely comprehensible. Chapters 4 and 5 of this book will show that its survival was fostered into the early-medieval period, and that it was raised to an unprecedented state of rustic grandeur in the seventh century. Chapter 6 will frame the context in which it may be seen as the 'officially' recognized scene of traditional events . . . the centre of a market, perhaps, or at least the local centre for the gathering-in of dues in cattle.

The stratigraphical evidence does not precisely define the relationship between this enclosure (in the degraded terminology of the present-day archaeologist, a fort) and those little buildings outside it that were constructed in separate post-holes - A6, $\mathrm{A}_{7}$ and ? A8but the two comparable structures in foundation-trenches that followed are likely, for various reasons, to have stood during the enclosure's last phase but two. In short, it is clear that a series of huts or cottages presaged the later and greater buildings that ultimately clustered round this ancient nucleus. Meanwhile, a small, square wooden building or enclosure with central free-standing posts had been set up on the site of the dismantled stone circle, and a series of inhumation-burials had been laid within and around it.

Phase II, Fig. 75
At this point major buildings appear, all constructed in crude, solid-walled, palisade-fashion in foundation-trenches. The original part of the assembly-structure, Building E, seems technologically at home in this period - in which case it might be seen as the formal complement to the folk-centre putatively represented by the Great Enclosure.

More certainly, two hall-like buildings were erected during this structural phase: DI and $\mathrm{D}_{2}$, on the western edge of the whaleback. The sunken-floored $\mathrm{D}_{3}$, apparently a specialized cooking-place, probably belongs to a later stage of the same broad phase. $\mathrm{D}_{1}, \mathrm{D}_{2}$ and $\mathrm{D}_{3}$ are distinguished from the rest of Yeavering's halls not only by the techniques of their construction but also by their north-south orientation. $\mathrm{DI}_{1}(\mathrm{~b})$ and $\mathrm{D}_{2}(\mathrm{a})$ are linked both by lengthwise alignment and by the same form of wall-building; but they are separated by a simple and practically functionless screen, which tends to underline other evidence indicative of a difference in function between the two buildings. Di passed through two structural phases, of which the earlier is likely to have been brief: pottery and a loom-weight suggest that it was a dwelling. $\mathrm{D}_{2}$ 's later history shows it to have been a structure of greater significance: probably, as will be seen, a temple. Thus it would appear that the township or centre created beside the Great Enclosure was made to serve institutional purposes from the outset.

Phase IIIAB, Fig. 76
$\mathrm{D}_{2}(\mathrm{~b})$ was built as a massive shell around $\mathrm{D}_{2}(\mathrm{a})$. Evidently importance was attached to continuity of the earlier structure's function.

In its modified form, as it existed when the first destruction of the township took place, $\mathrm{D}_{2}$ displays features that, in combination with the absence of the normal scatter of occupa-tion-material, mark it out as a structure of special significance. Contemporary burials, clustered round free-standing posts kept sacrosanct within an enclosure at its southern end, testify to $\mathrm{D}_{2}$ 's function as a focal point of ritual observance. A huge, free-standing post at the building's N.W. corner cannot be explained in purely practical terms. Inside D2, a setting of three posts near its south end is a unique feature which has no obvious structural purpose. Even more curious are the large, and apparently intermittent, deposits of ox-skulls inside the east door. Stacked up well above the top of a specially made pit devoid of pottery and all other forms of domestic rubbish, this remarkably selective cairn of bones does not lend itself to any 'normal' domestic or industrial explanation. It is more likely to represent a custom involving periodical feasts than seasonal bouts of conscientious housework (any housewife compelled merely by regard for hygiene and tidiness would have seen to it that all the bony residues of family dinners were thrown out indiscriminately to a comfortable distance). A similar periodicity of activity is implied by the presence of a series of successive, flimsy and short-lived huts flanking the western and probably the northern sides of D2. Collectively, these features prohibit the identification of $\mathrm{D}_{2}$ as a normal domestic or industrial structure; but all the evidence falls consistently into place when it is seen as a building with potent religious associations that made it a focus both for burial and for seasonal festivals. The otherwise inexplicable screen between $\mathrm{Dr}_{1}$ and $\mathrm{D}_{2}$ could, in this context, have been a token division separating the sacred from the secular. $\mathrm{D}_{2}$, with its inhumation-burials and enclosed,

Fig. 75. Yeavering, post-Roman Phase II. The Great Enclosure's development continues. D2, presumably a temple, is built (with the attendant $\mathrm{D}_{1}$ ) and supersedes the Western Ring-ditch as the centre for inhumationburials. $D_{3}$, seemingly a kitchen catering for feasts, is added after the new cemetery has been established. At this point or soon thereafter (judging from its primitive constructional technique) the nucleus of the assemblystructure $\mathbf{E}$ appears.

Fig. 76. Yeavering, post-Roman Phase IIIAB. Now the assembly-structure E, is certainly in existence; and the constructionally more sophisticated Building A2, with its palisaded enclosure, stands between the Great Enclosure and the temple-like $\mathrm{D}_{2}$.
free-standing posts, appears to have been in some sense the successor of the 'ritual centre' constituted by the Western Ring-ditch complex.

The major hall A2, with its enclosure, was probably erected in or about the same period that $\mathrm{D}_{2}$ was rebuilt, by which time Building E stood in place. Thus it is in this phase, IIIAB, that the character and status of the township are first plainly declared; and here also is the beginning of that striking massiveness and precision in construction that has been remarked. The alignment of the long axis of A2 with Post BX to the east (and perhaps with Post D or Post E) may be a ceremonial or 'ritual' feature; but the general change from a north-south to an east-west orientation of buildings is decisive and permanent, and must be at least partly a response to the prevailing direction of the strong local winds.

Building $E$ (not inconceivably a product of Phase II's maturity) cannot have been other than a formal institution, designed to meet the problems created by the regular holding of large assemblies. The small size of its dais and the form of its 'arena' do not allow of its having been designed or used for spectacle or drama in the classical sense. Evidently it was contrived to focus the attention of a large concourse primarily on a single individual standing, or more probably sitting, in front of Post E (pp. 241-4). On the basis of the reconstruction shown in Fig. 57 the original structure would have provided a total run of effective seating-space slightly in excess of 300 feet. Allowing 2 feet per person, as for a modern theatre seat, its capacity will have been originally of the order of 150 people. The later enlargement of the structure, on the same basis, will have brought the total of its accommodation to about 640 feet $=320$ people.

Building $A 2$ is shown to have been in some sense a dwelling, by its general arrangements and by the presence of minute fragments of pottery and an assortment of animal-bones which contrasts with the selective deposits in Building D2. Its walls were faced, internally at least, with fine, white plaster; and its lateral lines of internal post-holes are interpreted as representing a system of piles carrying a wooden floor divided by two axial passages. This was undeniably a building of some pretensions, and may justly be described as a 'great hall'. A group of post-holes of trapezoid plan, akin to that in front of Post E, suggests the possibility that a chair or throne flanked by tall posts stood in the main passage, close to an open area which is likely to have centred on a hearth.

A2's divided enclosure, which took in the sites of $\mathrm{A}_{6}, \mathrm{~A}_{7}$ and $\mathrm{A}_{5}$, was presumably a yard that fulfilled various purposes. Possibly one part kept horses in safety while their owners were in the hall: tents for men-at-arms might at the same time have been put up in its other compartment.

## Phase IIIC, Fig. 77

Now the township reached the zenith of its importance. The enlargement of Building $E$ doubled its theatrical capacity; A2 was replaced or augmented by the larger and even more impressive A4, with its wider doorways and 'nave'; the Great Enclosure was rebuilt in a commensurately elaborate and sophisticated style, and additional minor halls made their appearance. The long axis of $\mathrm{A}_{4}$ was aligned with that of $\mathrm{A}_{2}$, and similarly coincided with Post BX. Grave AX, unless it is to be associated with the east end of the enclosure attached to A2, would appear deliberately to have been laid then at the threshold of the east door of Yeavering's nearest approach to a Heorot. That, A4, was built within what had been A2's

Fig. 77. Yeavering, post-Roman Phase IIIc. $\mathrm{D}_{2}(\mathrm{a})$ is encased in $\mathrm{D}_{2}(\mathrm{~b})$, the capacity of Building E is doubled,


enclosure, and was itself given a similar, but undivided, enclosure by the erection of a fence around the site of A 2 (presumably after A 2 was dismantled). The building of Ar (a) decisively marks the end of $\mathrm{A}_{2}$, for the trenches of that new structure cut into those of the old; but it is evident nevertheless that $\mathrm{Ar}_{\mathrm{I}}(\mathrm{a})$ was of slightly later origin than $\mathrm{A}_{4}$, since the west end of A4's enclosure was at last remodelled around the east end of the new building. When that was done, the major hall $\mathrm{A}_{4}$ and the minor hall $\mathrm{Ar}_{\text {i }}$ shared the same enclosure. At an earlier stage, a smaller palisaded area attached to A4's east wall enclosed the seemingly dedicatory burial AX. That enclosure is demonstrably later than Palisade FPi (Fig. 26), which is assigned to the Great Enclosure's fourth phase; but part of its eastern side was cut away when the ancient enceinte was reconstructed in its final form.

Ultimately, the Great Enclosure had two circular entrance-works, one of which is known to have enclosed a hall-like building. The circumstances in which A4's eastern palisade was put up, and later removed, demonstrate that the rebuilding of the Great Enclosure very closely followed the lines of a previous phase but was so given to wide and deep trenches as locally to destroy all trace of what had gone before. Two points arise from this. First, that allowance must be made for at least one 'missing' phase in assessment of the fort-like enclosure's history. Secondly, that the circular entrance-works of the enclosure's last phase are likely to have reproduced in grander form what had existed in an earlier phase or phases.

It has been argued above that Yeavering's putative, lowland 'fort' can hardly have existed simply as a military work; and the suggestion has been made that it was maintained primarily to safeguard cattle and perhaps markets. It would be absurd to deny the strong defensive aspect of the enclosure's triple palisades; but, while that must denote sensible provision against the possibility of future emergency, a major factor indicates that the massiveness of this long-lived work in its final form might be seen in terms of a status symbol rather than a symptom of insecurity. It must indeed be expressive of extreme confidence in the general situation that, although the interior of this plausible 'fort' could have accommodated all the buildings of the later township, those conspicuous and vulnerable structures were set boldly on the open ground outside it. Conceivably a small garrison of (native?) guards was housed within the circular entrance-works; but evidently the interior of the enclosure was left free for some continuous communal activity that did not involve the use of permanent buildings.

That the basis for such confidence was ultimately removed is patently clear from the disastrous fire that ended this 'original' phase of the township's existence. The fact and nature of the damage to Building $E$ do not allow of this destruction having been accidental. This was a building without a hearth, at some distance from the other structures, and by its nature not readily inflammable; so that the possibility of its having been fired accidentally by flying sparks can hardly be entertained. Thus the localized scorching of the ground at the back of this structure assumes particular significance; for it is wholly consistent with a heap of brushwood, or the like, having been piled up against the standing timberwork and touched off with the deliberate aim of destruction (Fig. 55). The surviving traces of the fire indicate that it spread eastward in a south-westerly wind, and so there can be no doubt that it was started at the upwind end of the building. That the cause was simply a domestic bonfire seems inconceivable; and viewed against the utter destruction of the township, every separate building burned to nothing from S.W. to N.E., the disaster is surely to be seen as the result of a calculated act of hostility.

The string-graves, representing groups of more or less simultaneous burials, and uniformly containing burned debris, presumably testify to the lives lost in the course of this disaster. Laid out across the lines of the destroyed enclosure, they are the witnesses to its destruction.

Palisade $\mathrm{FP}_{4}$ seems to mark an attempt to re-establish a defensible position after the Great Enclosure had fallen; but it, too, is breached by burials that appear to have followed more or less directly after the catastrophe. Whatever its function in time of peace, the Great Enclosure seems to have become a centre of refuge or resistance in the face of enemy attack. Could $\mathrm{FP}_{4}$ have been brought into existence merely for the temporary safekeeping of the remnants of a royal herd? Overall the evidence speaks of a desperate last stand by defenders loyal to all the township had stood for . . . which seems basically to have been a legacy from the insular, British past.

## Phase IV, Fig. 78

The interregnum, implied by the uncontrolled spread of the primary string-graves and their immediate successors, ended with the rebuilding of the township. The new halls were constructed in a new style strongly suggestive of external influence; but Building $E$, the ravages of fire repaired, remained for a while to dominate the new pattern as it had the old.

The site of $\mathrm{D}_{2}$ was abandoned, and Building $B$, at the opposite end of the site, was established as the new focus of burial. Around it a fenced enclosure was set out, its northern boundary just including Pit BX and Grave BXI, and within the fence graves were laid out in orderly rows, 'in line ahead'.

Three of the new buildings, the major hall $\mathrm{A}_{3}$ (a) and the minor halls $\mathrm{A}_{\mathrm{I}}(\mathrm{b})$ and $\mathrm{C}_{4}(\mathrm{a})$, were provided with narrower annexes which are more likely than not to have been private bed-chambers. The domestic character of all but two buildings ( $\mathrm{C}_{\mathrm{I}}$ and $\mathrm{C}_{2}$ ) is denoted by traces of the normal debris of occupation. $\mathrm{C}_{3}$, devoid of all internal post-holes (save for a dubious instance which could mark the presence of a single post supporting the ridge between the eastern jambs of the north and south doors), is distinguished by a regular double row of posts outside three of its walls. At first glance it might be supposed that $\mathrm{C}_{3}$ had a verandah on three sides, but the paired post-holes show a slight inward inclination and are far better interpreted as a developed or reinforced series of the usual external buttresses. The outer series could be of later origin than the inner, but there was no evidence to show that this was actually the case. The absence of these features from the east wall probably denotes a plain gable at that end of the building (as, for example, at the west end of $\mathrm{A}_{4}$ ). Thus the somewhat unusual appearance of its plan carries no implication that this structure was other than a normal domestic building. The case of $\mathrm{C}_{2}$, however, is more doubtful. Less regular series of external post-holes here at first suggest that this building was surrounded by a fence, but gaps where the western corner-posts should have been show that these posts are to be explained in much the same way as their more regular counterparts around C3. The timber marks in all but the northernmost sockets showed a significant degree of inward inclination, and $\mathrm{C}_{2}$ has accordingly to be envisaged as a building propped up, towards the end of its life, in a somewhat desultory and unsightly way. Its character, however, remains obscure, since neither domestic nor industrial rubbish was found in any part of it. The thought that it may have been a large store-shed is not altogether encouraged by the presence of at least one

Fig. 78. Yeavering, post-Roman Phase IV. The old township has been burned to the ground, deliberately, and its debris has choked the string-graves dug around Posts AX and $\mathrm{BX} . \mathrm{A}_{4}, \mathrm{AI}_{1}$ and $\mathrm{D}_{4}$ are piously resurrected in a new style, and the assembly-structure E has been hopefully repaired; but the echelon of C -buildings is an innovation, and the Great Enclosure is at last abandoned, part of its site (including the ground that has supported Post BX) given over now to Building B, a church with fenced graveyard. Soon C2, C3 and E drop out of use and are pulled down.
internal partition (possibly two) - a feature in this case akin to that in the obviously domestic Building $\mathrm{D}_{5}$. It is probable that some or all of the internal partitions of the buildings at Yeavering supported upper galleries, on the principle of the hay-loft; so that it would be equally possible to regard $\mathrm{C}_{2}$ as a simple dormitory or a small barn. Its function is perhaps more in doubt than that of any other building at Yeavering, and clearly it must be left aside. The purpose of Cr , on the other hand, is relatively clear. It was a weaving-shed, and housed an upright loom. A broken loom-weight, found beside its north wall, was the only artifact it contained.

Phase IV saw both change and decline. No attempt was made to reinstate the Great Enclosure. Its last remains cleared away, and part of its site given over to a new church and cemetery, its function was apparently extinguished with the flames that had destroyed its little, local world. Consequently, it seems all the more significant that the repaired assemblystructure so soon became redundant: before the end of Phase IV it had been demolished without hint of any disastrous cause. With the similarly peaceful dismantling first of C 2 and later of C3, the neat precision of Phase IV's outsetting was undone; and the steady debilitation of the township became so much the more obvious.

Later, Phase IV was ended by a second, all-consuming fire. Every remaining building was burnt down while a north-easterly wind was blowing, and in every building the fire started at the north-east corner. If there were need for further proof that what is involved was one great catastrophe, the township's form in Phase V would supply it.

## Phase V, Fig. 79

Only four buildings were reconstructed after the second fire, and all in a new technique. The 'town-plan' of Phase V, meagre though it is, has such an appearance of purposefulness as to indicate that it was indeed planned and built as a whole, after a single, sweeping conflagration had reduced what remained of the township's dignity to smouldering charcoal. While $\mathrm{A}_{3}$ (b) closely followed the lines of its predecessor and retained both annexes, $\mathrm{Ar}_{\mathrm{I}}(\mathrm{c})$ was granted but a single, eastern, annexe, and a western annexe was added to $B$; so that the major building was flanked symmetrically by the two minor buildings, each presenting its annexe inward towards it. If these adjustments were indeed carried out to produce an appearance of symmetry, it follows that they were contrived with an eye to the view of the whole from the south; for otherwise $\mathrm{C}_{4}(\mathrm{~b})$ would have frustrated the intention. Good reason for supposing the appearance of the township to have been considered from that point of view is shown by reference to the town-plan of Phase IV; for the echelon-formation of its northern buildings is clearly a calculated device which, by its setting of the humblest structures at the greatest remove to the north, would have served precisely to this end. In Phase V, as in earlier times, the grouping of Yeavering's major buildings was deliberately arranged so that they would be displayed most impressively to the view of travellers following the natural route along the valley of the glen.

Altogether there is no cause to doubt either that Phase IV was brought to an abrupt end by a single, extensive fire (the second datum-line on the diagram) or that the structures of Style V form a strictly contemporary group. With those points assured, the diminished state of the township in Phase $V$ can be seen as an explicit acknowledgement of the decline which

Fig. 79. Yeavering, post-Roman Phase V. The township having been again wilfully destroyed by fire (fanned by a N.E. wind, this time, whereas on the previous occasion a S.W. wind was as carefully courted), $\mathrm{A}_{3}$ (b), $\mathrm{AI}_{1}(\mathrm{c})$ and $\mathrm{C}_{4}(\mathrm{~b})$ are built in cheap, plank-clad style. B is repaired and is now dignified by the addition of a W. annexe, which puts a good, symmetrical face on the dying township, as it will appear to travellers skirting the North Cheviots by the ancient E.-W. route to which, presumably, Gefrin in some part owed its origin.
is evident in Phase IV. The last halls at Yeavering were fewer and far inferior to those that had gone before. They remained in use long enough for series of repairs to be needed; and then at last they were abandoned by degrees and left to rot in the ground.

## The status and function of the township

It is apparent from the foregoing that there was in each major phase of the township's existence a hall of outstanding size and character, seemingly fit for a contemporary 'king'; which was set about with lesser but by no means inconsiderable halls. In only one of all these buildings ( Ci ) is there any positive suggestion of a specialized 'industrial' function, and that weaving: all the rest, save $B, D_{2}, E$ and $C_{2}$, are shown certainly to have been, in some sense, human dwellings.

It is remarkable that the quantities of occupation-material found on the site were so small. That, no doubt, is partly attributable to the removal of floor-levels by the plough; but it would seem additionally that the buildings were kept remarkably clean, for otherwise the packing-soil of the rebuilt structures could not have been so nearly barren. Moreover, no rubbish-pits were encountered in any of the large areas that were completely investigated; so that if the township excreted any considerable quantity of domestic refuse, most of its droppings must have been carried away to a comfortable distance. Such scrupulous tidiness as seems for the most part to be indicated might well perhaps be significant in itself; but there is a lurking suggestion, nevertheless, that the major buildings (in particular) were not in continuous use.

Contrast is provided by $\mathrm{D}_{3}$; which, though uniform in size and orientation with the minor halls about it, was the humblest in construction. That it yielded a relatively considerable amount of occupation-material may be due wholly to the fact of its floor having been immune from damage by the plough; but that, sunken-floored and insanitary, it was evidently long in use nevertheless is possibly an index to the township's social stratification. $\mathrm{D}_{3}$, essentially a kitchen with an attached butchery, might well indeed have been the original servants' hall of Yeavering. The evidence of the animal-bones suggests that its function was intimately connected with the activities for which $\mathrm{D}_{2}$ existed.

It appears that in general the differences in plan and construction between the habitable buildings of any one phase are representative of status, and do not necessarily imply any other fundamental variations in function. In this connexion it is relevant to remark that Building B, which was certainly a church, and Building D2, which was presumably a temple, were essentially normal minor halls of their respective phases. Neither was more than half the size of the great hall of its day, where presumably large numbers of people would have gathered. It is highly probable that the physical sizes of the secular buildings were, in general, correlates of status (as is most clearly suggested by the town-plan of Phase IV, with its echelon of buildings graduated from large to small).

The one outstandingly specialized structure was Building E, and the exact correspondence between its history and that of the township as a whole is clearly significant. Its erection was a central feature of the township's original establishment; and its later enlargement coincided with the phase in which the township was in all discoverable senses at its greatest. At the beginning of Phase IV, when great changes were wrought in the course of rebuilding after
the first catastrophic fire, Building E was repaired; but the importance of its function, evidently, was soon if not already waning. When, at last, that function ceased to be of significance, and Building E was demolished, the township itself was already in a publicly obvious state of decline. The rebuilding of Phase V was so limited in scale and so inferior in quality as to be but the merest prelude to final abandonment. Thus, all the most impressive phases of the township's formal existence are linked by the responsive history of this extraordinary, dominating structure; and it is difficult to resist the conclusion that Building E, designed for the holding of great assemblies, was in its time the central instrument and symbol of the function for which the township was created.

But why was Yeavering chosen as the place for large assemblies of people, and what was their purpose? The answer seems to lie in the history of the largest and oldest of all Yeavering's wooden structures: the Great Enclosure, which was the primary nucleus around which the township grew. In the beginning the enclosure stood alone for a long period, and the likelihood of its having originally been brought into existence to safeguard communal gatherings and musterings of herds, rather than as a military post, is greatly increased by the pattern of later events. At the time of its final violent destruction it had but recently been raised to the highest pitch of aggrandisement it had ever reached in its long and continuous history of renewal and conservation. Obviously the importance of its ancient institutional function had remained and been given formal recognition when the township was at the very peak of its development. One of the first buildings of the future township to break the enclosure's solitude had been E, the wooden theatre; whose institutional vigour proved to be such as to require the doubling of its original capacity. Hence it seems significant that, after the first catastrophic fire, no attempt was made to re-establish the Great Enclosure; and that the newly repaired assembly-structure itself was soon peacefully dismantled. What is involved might well be cause and effect; and if the passing of the Great Enclosure did indeed remove the purpose of the wooden theatre, the latter may be seen as having existed from its beginning in symbiotic relationship with the former, serving formally to fulfil or exploit the same ancient institution.

The changes that took place in Phase IV were, in any case, so fundamental as to indicate that the preceding devastation had had deep and lasting social (and probably political) effects. Originally, perhaps, something akin to a folk-centre, Yeavering had long been used as a place for burial and 'ritual' activities; and in this aspect, too, there is a notable change of character from Phase IV onward. The evidence for pagan extravagances ceases abruptly at the moment when the site of Post BX is safely contained within a churchyard. Thenceforth, the township's vigour and importance dwindle; and at last it is left to die on its feet.

In Chapters 4 and 5, which now follow, the dating and affinities first of the small-finds and then of the structures at Yeavering will be assessed; whereafter the sequence of events outlined here will be set into a context of historical dates and identities.

## CHAPTER FOUR

## THE SMALL-FINDS AND THEIR ARCHAEOLOGICAL AFFINITIES

Section (A) is a catalogue of the most representative objects found on the site, arranged in the following sequence: (i) Pottery (divided into several classes); (ii) Loom-weights; (iii) Gold; (iv) Iron and Bronze; (v) Glass; (vi) Stone. In (A), while the pottery is discussed class by class, the particular affinities of the objects in the other categories are discussed at the end of each appropriate sub-section. In section (B) the conclusions to be drawn from the finds as a whole are discussed; and an additional note on the possible significance of the wooden object in Grave AX is offered in section (C).
(A) CATALOGUE
(i) Pottery

The bulk of Yeavering's small yield in pottery consists of small, featureless sherds which are so amorphous as to be insignificant save in terms of fabric. Accordingly, only such pieces as demonstrate some aspect of ceramic form, fabric or technique are presented individually here. The key series thus established is, as far as is ascertainable, fully representative of the whole body of material, and the various categories distinguished within it seem broadly to be responsive to the successive phases of the site's structural history.

Class I (A) (Fig. 8o.)
The pieces illustrated are representative, in ware and (as far as can be ascertained) form, of about sixty sherds. Pottery of this kind occurred almost exclusively in Buildings $\mathrm{A}_{5}$ and D6 and the palisade-trenches of the Great Enclosure's earliest recognizable phase.

All of these sherds are remarkable for their thickness, which averages about $\frac{3}{4} \mathrm{inch}$. The fabric varies in hardness, not only from one vessel to another but sometimes also in different parts of individual vessels. Inequality of firing is evident also in the variable degree of oxidization shown by the colouration of the outer surfaces; which, while predominantly brownish-pink, ranges within a small compass from a deep orange-pink to a dull greybrown. Interior surfaces are usually grey or brown, suggesting that the vessels were inverted during firing. Characteristically, fractures reveal a reddened outer layer, and a blue-black core in which large grits (sometimes even small pebbles) are prominent. The grits frequently protrude through both the inner and outer surfaces, and the consequent lines of incipient fracture are a typical feature of the ware. Small superficial impressions and internal cavities indicate that a tempering of grass and/or straw (often apparently chopped) was also present.


Fig. 80. Pottery of Class I(A). Top, from palisade-trench of the Great Enclosure's third phase. Middle, from Building $\mathrm{A}_{5}$. Bottom, from Building D6. Scale $\frac{1}{2}$.

In most cases, the sections exposed by fractures show oblique lines of structure, indicating that the pots were probably built up by the coil-method. Finger-impressions on the inner surfaces are indicative of final shaping from within. The finish of some of the better-preserved fragments suggests that a damp cloth was wiped over the surfaces when the clay was nearly leather-hard.

A plain rim and a narrowing-in of the sides towards a moderately well-squared base are typical of the fragments found. The characteristic form seems to be a bucket-shaped vessel, with an inward curve towards the top of its profile. In general these vessels are without any trace of soot, and their size and form suggest that most, if not all, were storage-pots.

## Discussion

Class I(A) represents one aspect of a diffuse and degenerate ceramic tradition that has received extended notice from Richmond, ${ }^{73}$, Hogg $^{74}$, and Wheeler ${ }^{75}$, respectively occasioned by publication of comparable material from Ingram Hill, Northumberland, Traprain Law, East Lothian, and Stanwick, North Yorkshire. It is not relevant to the present inquiry further to pursue the ultimate origins of this type of pottery, which are painstakingly discussed in the papers cited; and it must be remarked at the outset that the crudity of the material limits the extent to which analogy can be illuminating in terms of specific local cultural variations or of chronology. It is sufficient to say that fundamentally this is pottery of a barbarous character, of the kind typically associated with native communities in the highland zone of North Britain ${ }^{76}$; that it is based on devolved elements of Late Bronze-age tradition; and that it is extremely persistent, occurring with little essential change in contexts ranging from the pre-Roman Iron Age to the early medieval period. ${ }^{77}$

With due reserve, the Yeavering pottery of Class $\mathrm{I}(\mathrm{A})$ may now be considered in relation to its most particular analogues.
The characteristically plain, tapering type of rim (like a slightly bent finger), shown in Fig. 80, is well matched in a rim found at Greaves Ash, ${ }^{78}$ Northumberland, and is closely approached by pieces from Huckhoe ${ }^{79}$ and Gubeon, ${ }^{80}$ Northumberland, in contexts of the first two centuries AD, and from Hownam Rings, ${ }^{81}$ Roxb., in association with third-century pottery. Among other parallels, those presumptively associated with late third-century coins at Traprain Law ${ }^{82}$ are worthy of mention.

The base-form is an unrewarding subject for analogy, and it need merely be pointed out that similar bases occurred at all the sites to which reference has been made above.

Though the comparative material, where dated, thus falls within the first to fourth centuries AD, this focus must be more apparent than real. It is precisely within this period that the maximum possibility of associative dating exists: thereafter, with the end of trade in Romano-British manufactures, the chronology of the 'native' pottery of the north again becomes extremely obscure. In the absence of reliable external references it is at present impossible to date individual pieces or groups, and it is greatly to be hoped that dating by some physical technique will later solve this difficult problem. The examples cited at least indicate the persistent character of the fundamental tradition, and support the likelihood of its having continued well into the post-Roman period; as is most forcefully argued by Richmond, particularly in his citation of the medieval associations of kindred ware at Sourhope, ${ }^{83}$ Roxb. (at no great remove from Yeavering).

Class I (b) (Figs. 8r-3)
Fig. 8I, pottery fragments from Floors 1 and 2 of Building $D_{3}$, represents two slightly different wares and forms that appear to be variations on a common theme. Sherds certainly falling within the range of this variation in ware occurred in Buildings $\mathrm{Ar}_{\mathrm{I}}(\mathrm{a}), \mathrm{C}_{3}, \mathrm{D}_{3}$ (on Floor I and Floor 2), $\mathrm{D}_{4}(\mathrm{a})$ and $\mathrm{D}_{4}(\mathrm{~b})$. A considerably greater number of very small fragments (closely similar to the above in the nature and thickness of their fabric but more poorly fired) occurred in all the buildings. Inadequate firing and the characteristic of incipient


Fig. 81. Pottery of Class I(B). Above, from Floor I of Building D3. Below, from Floor 2 of Building $D_{3}$. Scale $\frac{1}{2}$. *


Fig. 82. Pottery of Class $\mathrm{I}(\mathrm{B})$. (I) from Building $\mathrm{DI}_{1}(\mathrm{~b})$; (2) from Building $\mathrm{D}_{4}$; (3) from Building $\mathrm{D}_{5}$; (4) from Building $\mathrm{A}_{2}$; (5) from Building $\mathrm{A}_{4}$; (6) from Building $\mathrm{A}_{3}$ (a) ; (7) from Building $\mathrm{A}_{\mathrm{I}}(\mathrm{b})$; (8) from Building $\mathrm{Ci}_{1}$; (9) from ditch associated with Building $\mathrm{C}_{2}$; (10) from Building $\mathrm{C}_{4}$ (a). Scale $\frac{1}{2}$.


Fig. 83. Pottery of Class $\mathrm{I}(\mathrm{B})$, associated with circular hut built over remains of demolished Building D3. Bottom right, remains of pot crushed during final levelling of $\mathrm{D}_{3}$ 's site. Scale $\frac{1}{2}$.
fractures seen in Class I (A) were commonly apparent; and there was ample evidence of the general tendency of the Class I pottery to disintegrate under stress of soil-pressure, frost, root action and mechanical disturbance.
(2) resembles ware of Class $\mathrm{I}(\mathrm{A})$ in paste and colour, but its flattened and slightly projecting rim and the slight shoulder produced by constriction of its neck do not appear among the large, thick-walled vessels characteristic of that class. (i) is of a coarser and more sandy fabric than (2), more heavily gritted and of drab, grey-brown colour. These and other fragments of the same class indicate that the coil-method was probably used in their manufacture.

The extremely fragmentary nature of the Class 1 material, as a whole, does not allow detailed typological conclusions to be drawn; but the Class $I(B)$ vessels seem in general to have been of smaller size than those of $I(A)$, and that in itself probably accounts for their slightly less crude fabric. Whereas the bulk of Class I (A) appears to consist of storage-pots, cooking-pots are typical of $\mathrm{I}(\mathrm{B})$. Figs. 82 (5) and 83 (3) show complete profiles which indicate that a form in common between $I(A)$ and $I(B)$ was of long persistence. Among the other fragments illustrated are variants which suggest that clubbed and everted rim-forms may have grown slightly more popular as time went on.

## Discussion

Class $\mathrm{I}(\mathrm{B})$ is closely related to Class $\mathrm{I}(\mathrm{A})$ in its general technique. Were the material from Yeavering to be viewed in isolation, the fact that the two classes did not occur in association might suggest that $\mathrm{I}(\mathrm{B})$ was a later development from $\mathrm{I}(\mathrm{A})$; but the comparative material shows that they are more likely to represent two specialized aspects of the one well-established repertoire. Hogg ${ }^{84}$ points out that two types of ware (corresponding roughly with those in question) occur in association at Traprain Law; and that, though the coarser of the two becomes less common after the end of the second century, the fundamental difference between them is more likely to be one of function than of date. A similar circumstance may be noted at Thornton-le-Dale, ${ }^{85}$ North Yorkshire; and at Yeavering, too, the contrast between the two classes is probably expressive of a change in local needs rather than of any significant technological evolution.

The nature of the material does not allow its dating to be considered in terms of exact parallels. That Fig. 8I (2) has slight affinities in ware and form with late first-century pieces from Stanwick, ${ }^{86}$ and also recalls a group of rim-fragments of about the same period from Traprain, can hardly be of any particular significance against such a background of doggedly conservative and slipshod potting. The most that can be said is that Class $\mathrm{I}(\mathrm{B})$ is clearly at home in the same widely diffused and uniformly debased native tradition as Class $\mathrm{I}(\mathrm{A})$.

Class 2 (Fig. 85 (I))
The vessel illustrated is representative of a ware and form found only in the palisade-trenches of the fort's earliest recognized phase, in association with pottery of Class i(a). The related fragments shown assembled in the illustration, and three sherds from a separate pot of similar ware, comprise the whole of the relevant material.

The distinctive form of the rim is sufficiently apparent from the illustration; but the fabric requires description. The external surface is of a pale, grey-brown colour, and from its tendency to flake off appears to have been produced by a finishing-coat of slurry. The core is seen in fresh fractures to be black; but old fractures have weathered to a lighter, blue-grey colour. The leading characteristics of the paste are its relative fineness of texture and the infrequency of included grits. All the sherds of this class have a powdery 'feel', akin to that experienced when handling rough flakes of chalk. The rim-fragment illustrated shows particularly clear evidence of coil-technique, and much internal fingering around the rim.

## Discussion

Class 2 is distinguished from the foregoing essentially by its ware, which, unlike its rim-form, is difficult to relate to either sub-division of Class I. That it is not altogether a freak and merits separate categorization is demonstrated by occurrences of the same ware and form at two sites in the same region: at Hownam Rings, ${ }^{87}$ Roxb., and at Huckhoe, ${ }^{88}$ Northumberland. The excavator of Hownam regarded the pieces in question as being of relatively late date in the site's history. In the former case the evidence was found to favour a date in the second half of the third century or the beginning of the fourth; and in the latter there was association with a vessel which, from its unusual character and the circumstances of its occurrence, was conjectured possibly to be of post-Roman date. A small rim-fragment from Huckhoe corresponds precisely in all determinable respects with the vessel shown as Fig. 85 ( I ), and the excavator of that site is in full agreement with the writer that this and the pieces from Hownam and Yeavering now in question form a distinct group. The date of the Huckhoe pot cannot be determined with certainty: use of the site extends from the second century AD into the post-Roman period, but it seems stratigraphically unlikely that the Huckhoe sherd was deposited later than the beginning of the fourth century.

## Class 3 (Figs. 84 and 85 (4), Plate 109)

It will be convenient to call the vessel reconstructed in Fig. 84 'Pot yas'. Two of its smallest fragments appeared to be stratified securely in the original packing-soil of one of the east


Fig. 84. Class III wide-mouthed bowl ('YAS') from jamb-pit of Building Dr (b)'s E. door. Scale $\frac{1}{2}$.


Fig. 85. (1) Class 2 pot, from earliest palisade-trench of Great Enclosure.
(2) Sherd of dark, sandy ware, possibly turned on a slow wheel, from Building C3. 'Class 5'.
(3) Class 4 rim from Floor 1 of Building $D_{3}$.
(4) Class 3 sherd from Floor 1 of Building $D_{3}$.
(5) Sherd of grey, wheel-made ware from junction of $\mathrm{A}_{4}$ and $\mathrm{A}_{3}(\mathrm{a})$ wall-trenches (probably from $\mathrm{A}_{3}(\mathrm{a})$ ) : 'Class 6'. Scale $\frac{1}{2}$ throughout.
door-pits of Building $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ : hence, although the rest lay jumbled in the demolition-hole, it might be concluded that Pot yas was derived from the earlier Building Di(a). A widemouthed bowl, nearly $10 \frac{1}{2}$ inches in diameter at the girth, it is characterized by the distinctness of its almost vertical rim from the body, and by the rather sharply worked protrusion of its belly. Dark brown in colour throughout, the fabric is evenly tempered with fine to medium grits (which are suggestive of selected material taken from a stream-bed). Both the internal and external surfaces were smoothly finished, but the former is extensively eroded. Externally the vessel was partially burnished when leather-hard, and the marks of the tool employed (probably one of polished bone) are visible on the coarsely ridged surface. Possibly a turntable was used in the course of its manufacture, but the issue is obscured by the extensive handwork to which the bowl was subjected before firing.

Small, crushed sherds of precisely the same ware were found on the earliest floor (Floor I) of Building $D_{3}$ (the biggest is shown in Fig. 85 (4)). The total bulk of the Class 3 material from $D_{3}$ could be laid out within the bounds of a 6 -inch square, and there was no sign that more than one vessel was represented.

## Discussion

Class 3, both in form and fabric, is sharply and significantly divided from those 'native' wares that have been considered above.

Wide-mouthed bowls essentially of the same character are familiar features of Anglo-Saxon cremationcemeteries in eastern England. The most numerous, convincing and relevant parallels to Yeavering's one clearly 'intrusive' pot, yas, are to be found in Humberside, Lincolnshire and East Anglia.

The important cremation-cemetery at Sancton, ${ }^{89}$ Humberside, within the bounds of the kingdom of Deira, provides a series of vessels that display the characteristics of the piece now in question. The distinctive fabric of yas can be matched again and again in the Sancton material. The resemblance is extraordinarily precise. Six eminent archaeologists deeply experienced in ceramic problems have been handed fragments of Pot yas and a representative but undeclared sherd from Sancton and asked to fit them together; and each, while of course unable to find a 'join', has expressed the opinion that all the fragments belonged to one and the same vessel. The form of yas, too, is reproduced in many instances at Sancton, with varying degrees of exactitude, and often in the same type of fabric. The Sancton vessels, all cremation-urns, are for the most part ornamented, whereas the Yeavering piece is austerely plain, but that is obviously of little or no consequence: Sancton and Yeavering are clearly representative, respectively, of the funerary and domestic aspects of a single tradition. The dating of Anglo-Saxon pottery is a notoriously difficult matter, and the chronology of the great mass of material from Sancton can hardly be considered in detail until such time as the results of recent research on the site are definitively published. ${ }^{90}$ Even so, it is evident that the Sancton cemetery was early in origin and long in use, and the series of wide-mouthed bowls must begin not later than the early years of the fifth century. The writer has examined the material at some length, and has the impression that the incidence of the relevant form declines in the first half of the sixth century; but the whole matter rests at present on a most insecure basis, and it is in any case likely that so simple and useful a form persisted in some places into the seventh century.

Dr Myres has pointed out the early affinities of the wide-mouthed bowls from the Elkington cemetery in Lincolnshire, ${ }^{91}$ while indicating the possibility that the form survived longer in Britain than on the Continent. Several of the urns from Elkington invite comparison with YAs; ${ }^{92}$ and in a group of vessels from Ruskington (which Myres suggests is probably of late sixth- or early seventh-century date) ${ }^{93}$ is a small bowl rather similar to the Yeavering piece in form, but with a flabbier, S-shaped, profile resulting from less painstaking fashioning of the rim and girth. ${ }^{94}$

Other kindred forms occur in the material from the cremation-cemetery at Lackford, Suffolk. ${ }^{95}$ Among the unornamented vessels from that site are several resembling yas in ware and technique, and one of similar form is exhibited in the Museum of Archaeology and Ethnology in Cambridge. ${ }^{96}$ The great body of unpublished
pottery from the Cambridge region, housed in the same museum, contains material relevant to this issue (e.g., fragmentary bowls from the cremation-cemetery on the site of the St John's College cricket-field), but in the absence of reliably observed associations with closely datable objects it would be pointless to discuss them in detail.

From a single pot, and particularly from one of such simple character, it is impossible to draw any very refined conclusions. All that can be said with certainty is that the Yeavering bowl is, in the usual broad sense, Anglo-Saxon. The basic type is well known in Continental archaeology, and there is a marked family resemblance between yas and what must be in some degree ancestral forms from the great Anglian cemeteries such as Borgstedt, Kr. Eckenförde, ${ }^{97}$ and Süderbrarup, Kr. Schleswig ${ }^{98}$. As is well known, the close relationship between certain decorated urns of the late fourth and early fifth centuries from sites in Angeln, on the one hand and from the Sancton and Caistor-by-Norwich cemeteries, on the other, was early perceived by Myres ${ }^{99}$ and recent research has underlined its significance. ${ }^{100}$ Nevertheless it would be quite improper to assume that the Yeavering bowl itself constitutes evidence of direct settlement from the Cimbric peninsula. ${ }^{101}$ Its precise date remains in doubt; but it is clearly not a very early piece, and it must be viewed against the background of those mingled and diffused Anglo-Saxon traditions that become increasingly characteristic of the north-German, Frisian and English scenes from the fifth century onward. As Professor Tischler remarked, while examining yas, it could be equally at home in any one of the areas in which Angles and Saxons were mixed together, and is most likely to belong to the middle of the sixth century or perhaps a little later. In our present state of knowledge, judgement of such an issue is inevitably to some degree subjective and precarious. The history of the wide-mouthed bowl was not cut short at 600; but such examples as are known or suspected to be of late date within the possible range have the flabby, seemingly devolved, form that is already apparent in the Ruskington bowl to which reference was made above. They lack the distinct definition of the upstanding rim, the conscientiously worked outjut of the girth, that in the Yeavering piece speak of more intimate understanding of the ancestral form. Slight and insecure as this evidence is, it does - especially when viewed in the light of the Sancton material - suggest that the piece in question is for the moment at least better dated in the sixth century than the seventh. The need for caution is wholly satisfied by a broad dating within the period $55^{0-6} 50$; but the formula $575 \pm 25$ years appears to be more expressive of the balance of probability.

## Class 4 (Fig. 85 (3))

The piece illustrated is the only rim-fragment among the seven small sherds of this class. It was found on edge beside the northern hearth of Building $\mathrm{D}_{3}$ (at the level of Floor I, but embedded in clay that appeared to be part of a repair associated with Floor 2), with three extremely small, crushed sherds of similar fabric. Two further small sherds occurred on Floor 2 of the same building. Another, found at the junction of the ploughsoil and subsoil near the north wall-trench of Building $\operatorname{Dr}(\mathrm{b})$, is possibly of the same class, but is too small and heavily abraded for assured diagnosis.

This distinctive ware is thin, hard and slightly sandy, uniformly dark-brown in colour throughout, and shows clear traces of vegetable tempering. Certainly hand-made, its chief characteristic in form is a feebly everted rim which varies in section even within the bounds of this small fragment.

## Discussion

Class 4 is shown by its associations to be contemporary with or (more probably) some decades later than Class 3 . A few sherds of not dissimilar fabric (unpublished) from the later levels at Traprain, ${ }^{102}$ which are in the reserve collection of the Edinburgh Museum of Antiquities, admit the possibility that this is a ware of native origin. None the less, these sherds could be closely matched on Anglo-Saxon settlement-sites. The same type of dark, sandy, grass-tempered ware occurs in the pottery from the monastery at Whitby, North Yorkshire, founded in
the seventh century, and rather indecisive rim-forms are common there. ${ }^{103}$ At Old Windsor, ${ }^{104}$ Berks., the seventh-century levels produced pottery of comparable ware which was characterized by the feebleness and irregularity of the rims, as a rule but slightly and clumsily everted. The unpublished material from Sutton Courtenay, ${ }^{105}$ Oxon., includes broadly similar pieces, some of which probably belong to the sixth century.

The affinities of Class 4 cannot be distinguished with certainty from so small a sample, but it follows so closely on the heels of Class 3 that it is not unlikely to represent a later aspect of the same intrusive culture. Even so, some doubt must remain until such time as the full range of the contemporary 'native' repertory is known and understood.

## Class 5 (Fig. 85 (2))

This class is defined and represented by only two sherds, from the girth of what appears to have been a wide-mouthed bowl. Here again, it is the ware that is distinctive: quite exceptionally hard and sandy, dense and even. The regularity of this piece suggests that it may have been turned on a slow wheel. Stratified in the demolition-material of Building C3, it belongs to the penultimate phase of Yeavering's history and may be given a date somewhere about the middle of the seventh century. Conceivably Class 5 marks a local response to the revival of sophisticated potting techniques in the south of England, but the extremely small size of the sample does not allow such refined conclusions to be reached.

## Class 6 (Fig. 85 (5))

This 'class', represented only by the sherd illustrated, is of doubtful significance. The sherd in question was found in the gravelly, worm-sorted earth immediately under the modern ploughsoil. Mesolithic flints and fragments of seventeenth/eighteenth-century clay pipes also occurred in this blanket-layer. This piece of pottery is recorded only because it happened to overlie the junction between the southern wall-trenches of Buildings $\mathrm{A}_{3}$ and $\mathrm{A}_{4}$, and because it cannot be certainly identified. Wheel-thrown, exceedingly thin and hard, its fine grey paste well levigated, this piece was thought at first to be Romano-British; but Romanists reject it. Equally it is not accepted as one of the recognized post-Roman imported wares, and the consensus of opinion favours its identification as an abnormally refined late-medieval ware. Whatever its origin, this piece may safely be regarded as a 'stray' that has no bearing on the history of the Yeavering township.

$$
\text { (ii) Loom-Weights (Lr-4, Fig. } 86 \text { (a)) }
$$

$L_{I}$ was found among a series of packing-stones that ringed the socket of a post-hole within Building $\mathrm{D}_{4}$, and its deposition is attributable to the phase of refurbishing represented by Floor 2. It is likely that this piece was in use at the same time as Floor r, but the possibility that the packing-stones with which it was finally associated were relatively late insertions leaves the matter in doubt. (Phase III/IV.) $L_{I}$ has a blue-grey core and buff-pink outer surfaces, and recalls both in its material and its firing the characteristics to be seen in the fabric of the site's 'native' pottery.
$L_{2}$ lay almost vertically against the outer face of the north wall of Building Ci. Its position showed that it came into place after the wall was built, and it is probable that it was broken and discarded while the building was still in use. This piece, unlike $L_{2}$ and $L_{3}$, is almost
uniformly of a brownish-pink colour throughout its thickness. It is further distinguished by the presence of a secondary hole, conical in form, bored through its outer edge from the more convex face after firing. Possibly this was a makeshift that allowed the weight to be 'suspended in the usual manner' for a short time after it was broken; but it could be interpreted as a device to allow the attachment of a separate 'anchor-line' which would hold a terminal group of warp threads more securely in the desired position (if only by damping its swing). (Phase IV.)
$L_{3}$ is a mere fragment, found in the demolition-debris of Building $\mathrm{C}_{3}$. (Phase IV.) The reconstruction-drawing, based on the not entirely secure assumption that the object was roughly symmetrical, shows $L_{3}$ to have approached the 'bun-shaped' form more nearly than the others (which are better likened to doughnuts of the American type).
$L_{4}$ was found close to the S.E. corner of Building $\mathrm{D}_{5}$ and, since it lay at the inner edge of the demolition-trough, may be accepted as evidence of domestic activity within that hall of Phase III. $L_{4}$ closely resembles $L_{2}$ in its fabric and firing. The absolutely larger size of $L_{4}$ 's central hole appears at first sight to suggest that this piece lies closer to the 'annular' end of the typological scale; but in both examples the relative proportions are roughly the same the hole takes up about a third of the total diameter of the object.

## Discussion

$L_{t-4}$ are loom-weights of a type which, well known abroad, is becoming increasingly familiar in Britain from its occurrence on Anglo-Saxon settlement-sites. This type has for some time been recognized as a separate form, intermediate between the 'annular' ${ }^{106}$ and the 'bun-shaped' ${ }^{107}$ varieties. Hurst, ${ }^{108}$ in considering its formal definition, points out the 'danger of a complex typological sequence', but agrees with Wheeler ${ }^{109}$ that the associations of the annular form are 'early' while those of the bun-shaped form are 'late'. At the same time his account leaves the impression that the intermediate form is probably intermediate in date also; and, in stating that 'similar categories of loom-weights are found on the Continent', he should perhaps have laid stress on the occurrence of the intermediate type in early Continental contexts. ${ }^{110}$

Loom-weights similar to those at Yeavering occur at Whitby, ${ }^{111}$ North Yorkshire, Caister-by-Yarmouth, ${ }^{112}$ Norfolk, and Old Windsor, ${ }^{113}$ Berks., and other sites falling wholly or in part within the period of the seventh, eighth and ninth centuries. Others of the same type from Ham, near Kingston in Surrey, ${ }^{114}$ appear however from their associations to be open to a considerably earlier dating. Altogether - not least because of the type evidently originated on the Continent in or before the fifth century - it would be unwise to impose any arbitrary limit on the dating of its earliest examples in Britain. Indeed it is gravely doubtful whether the form should be regarded as a chronological indicator, save in the grossest terms.

In terms of date, therefore, the occurrence of such loom-weights as Li-3 at Yeavering does not allow of any more precise conclusion than that the horizons with which they are associated belong to the early centuries of the post-Roman period. Their cultural implications, on the other hand, are more precisely significant. Like the pottery of Class 3 , with which they must broadly be equated stratigraphically, they signify the intrusion of an alien, Germanic, element into what was formerly a wholly 'native', British, scene.

> (iii) Gold (GI, G2, Plate III)
$G_{I}$ is a small coin of base gold, found in unquestionable association with Building $\mathrm{A}_{3}(\mathrm{~b})$. It lay in a vertical position directly against the inner edge of that building's north wall, and the probability that it was lost during the occupation of the hall is overwhelmingly great.

Soon after its discovery, casts of this coin were studied by Dr Jean Lafaurie, of the Cabinet des Médailles, Bibliothèque Nationale, Paris, who most kindly commented on its affinities ${ }^{115}$. He read the inscription as J Y YMOL (obv.) and LWPIOIZIY
(rev.). He was led to conclude that this Yeavering coin was a Continental imitation of a triens of choe $=$ Huy (Belgium) of the moneyer Bertoaldus, and suggested a date circa 650-60.

As this book was going to press, the coin was found by the British Museum to be an ancient forgery of gold-washed copper. Dr J. P. C. Kent has most kindly contributed the following report on the Merovingian triens from Yeavering, allowing the coin to be roughly two decades earlier in its origin:

The triens of Bertoaldus of Huy (weight $\mathrm{r} \cdot 03 \mathrm{~g}$.) is a contemporary imitation. Its low specific gravity ( $9 \cdot \mathrm{O}$ ) (information from Mr W. A. Oddy, F.S.A.) shows that it is composed essentially of copper; the apparent traces of gilding are purely superficial. Authentic coins of Bertoaldus are often perceptibly of 'pale' gold, i.e. they belong to a period in the $630 s$ and 640 shen the fineness of Merovingian coinage had systematically fallen below $60-50 \%$. Bertoaldus's issues are closely related in style, and probably in fineness, to those of Dutta of Quentovic, found in the Crondall Hoard. (For the dating of Merovingian coins, see Methods of Chemical and Metallurgical Investigation of Ancient Coinage, ed. E. T. Hall and D. M. Metcalf, London, 1972, p. 69 ff. The fineness of the coins in the Crondall Hoard may be found ibid. pp. II7-18.)
$G_{2}$ is a circular ring of gold wire about 4.5 mm in diameter and about 0.6 mm in thickness, found at a high level in the filling of one of the small post-holes that defined Building A4', central aisle. It is slightly distorted in shape, and the two ends of the wire are separated as though it had been prised out of the setting to which it belonged. The wire is moulded into a series of fine, well-executed segmentations at intervals of about 0.35 mm .

## Discussion

G 2 is representative of a technical device widely used by goldsmiths and jewellers during the first millennium AD, as part of the repertory of filigree work in gold. It could readily be matched in late provincial-Roman jewellery, but a later origin must be preferred in view of its archaeological context at Yeavering. Gold beadings such as this are common in Germanic craftsmanship of the sixth and seventh centuries, and frequently appear as decorative adjuncts to inlays and rivets on buckles and circular brooches. Most familiar, perhaps, in Kentish jewellery, ${ }^{116}$ the technique appears on Anglo-Saxon pieces from a wide area of England ${ }^{117}$ and is displayed on penannular brooches and other objects of the Early Christian period in Scotland and Ireland. ${ }^{118}$

## (iv) Iron and Bronze (Figs. 87-9I)

Fig. 87 shows Grave-group BZ (Area B). The diagram, top right, indicates the positions of the constituent objects relative to the ghostly traces of the human skeleton. The swivellike object (3) is shown here as the catch of a purse, but it is possible that it was originally affixed directly to the belt (decay and collapse of the body's pelvis is likely to have caused some displacement). This and other pieces of Grave-group BZ will be discussed below, in the broader context given by Fig. 88.


Fig. 86. (a) Loom-weights $\mathrm{LI}_{1-4}$ (at $\frac{1}{2}$ ), respectively from Building $\mathrm{D}_{4}$, Building Cr , Building $\mathrm{D}_{5}$, and pit or post-hole on quarry-edge in 1952 (adjacent to fragmentary Building D7). (b) Objects of glass (at $\frac{1}{1}$ ) GLI and 2 from unurned cremations: GL3 and 4 from Building A4's demolition-trough.


Fig. 87. Grave-group $\mathrm{BZ}_{5} 6$. Scale $\frac{1}{2}$.
Fig. $88(I)$ is the heavily corroded iron hoop of a large buckle, which was stratified in the redeposited material filling the timber-sockets of the Great Enclosure's innermost palisadetrench. At the moment of discovery this piece was thought to lie just within the bounds of one of the graves of the eastern cemetery; but careful examination of the soil in cross-section proved decisively that the deposition of this buckle is to be associated with the demolition of the enclosure.

Between the normal obverse and reverse views of this object given in Fig. 88 is a drawing made from a radiograph, which reveals that the buckle-hoop carried elaborate decorative inlays (almost certainly of silver). Accordingly this, the only unambiguously Germanic piece of metalwork found at Yeavering, must be added to the corpus of early Anglo-Saxon inlaid metalwork as its northernmost instance: in its material and massive form it follows Frankish fashion closely, and it would sit well in a Kentish cemetery. ${ }^{119}$ It appears to be a relatively late example of its type, and while it might find place in the late sixth century it is better located in the first half of the seventh.


Fig. 88. Iron buckles 'swivels' and knives. Scale $\frac{1}{2}$.

Fig. 88 (2) is a small iron buckle closely similar to the buckle in Grave-group BZ (Fig. 87 (r)). While these objects are reasonably well paralleled in Anglo-Saxon cemeteries, they have analogues in the Celtic world also ${ }^{120}$ and it would be rash to draw, 'ethnic' conclusions from the presence of such simply utilitarian adjuncts of dress. As to dating, no more can be said than that they fit comfortably into the sixth/seventh-century context indicated by the gold coin, the intrusive type of pottery and the large buckle. Packing-soil, $A_{3}, E$. wall.

Fig. $88(3,4 \mathcal{E} 5)$ are smaller examples of the form shown in Fig. 87 (3). It would be reasonable to regard these iron objects as swivel-catches of some kind. But for the example in Grave-group BZ they could be seen as the fastenings of shutters or doors. Unless the swivel in Grave BZ was accidentally included it can only be interpreted as (a) the catch of a woodenframed purse or small box (empty?) or (b) the fastening of some leather adjunct to the belt as it might be, the strap carrying the knife-sheath. Mainly because it is so difficult to explain the mechanism of (b), and partly because the object would have been an awkward, clumsy thing to wear, the writer prefers (a). The shutter/door hypothesis remains attractive, nevertheless: is it possible that the corpse in Grave BZ was brought to burial on a door, a shutter or the lid of a chest that had survived the holocaust? - the powdery traces of the skeleton were so scanty as to deny all possibility of distinction between objects laid immediately over or under the body. Demolition-trough $A_{4}: E$. edges $\mathcal{N}$. and $S$. door-jambs.

Fig. 88 (6) shows two S-shaped hooks of bronze interlinked with one complete S-hook of iron and the vestige of another. The use of two contrasting metals may imply a decorative intention. Identification is clearly impossible; but this might represent a chain for the hanging of a bowl or cauldron, a harness-link, a chatelaine, or even the chain-mail fringe of a helmet. The awl-like object also shown in (6) lay directly underneath the chainwork fragment, but appears to be unconnected with it. A4, E. wall: top of demolition-level.

Fig. 88, 7-12 incl., brings together six of the seven knives found at Yeavering (the seventh, from Grave BZ, is illustrated in Fig. 87). (7) and (12), both of Phase IV, show something of that sharpness of shoulder, at the junction of blade and tang, remarked by C. M. Piggott ${ }^{121}$ as a post-Roman characteristic in Scotland. Shouldered knives are the typical form in Anglo-Saxon cemeteries and settlements, but examples in which the shoulder is weak or absent are also in evidence in that context. ${ }^{122}$ The contrast between (7) and (12), on the one hand, and (8) and (10) on the other, may be expressive of difference in date; but it must be emphasized that (8) and (io) (from late graves of the Western Ring-ditch Complex) survived and were drawn as little more than stains in the soil. The diagnostic value of such simple, common forms may be doubted, and it should be noted that the whole range of Yeavering's knives is paralleled on Celtic sites of the same period. ${ }^{123}$

Fig. 89 ( $I$ ) represents a slide-key found so close to the doorway of Building $\mathrm{A}_{3}$ (b)'s eastern partition-wall as to appear an authentic feature of Phase V. This type of key, familiar in the Roman period, occurs frequently in Anglo-Saxon cemeteries and settlements, but it appears gradually to have died out after the seventh century in S. England: a stratified series of keys at Old Windsor, Berks., shows it there to have been supplanted by other forms ${ }^{124}$ from about the eighth century onward.


Fig. 89. Iron slide-key, drawknife, possible harness-fragments, hinge, L-hook, 'strike-a-light' and spiral object. Scale $\frac{1}{2}$.

Fig. 89 (2). An iron drawknife, precisely paralleled at Lagore. ${ }^{125}$ Phase II or III. This is the only woodworking tool found at Yeavering. D2's demolition-trough.

Fig. 89 (3). This iron ring, which clearly was free to move within the looped end of the fragmentary iron rod attached to it, recalls the two-link snaffle-bit found at Lagore, ${ }^{126}$ though lacking the pendant strap-end. While it might be explained in various other ways, it seems unlikely to represent a normal suspension-chain. Filling of Palisade 3 socket.

Fig. 89, (4, $5 \mathcal{E} 6$ ). These three iron objects have two characteristics in common: all were plates secured by iron nails, and each consisted of two linked elements (the reconstruction of (5) is secure, since the crushed remains of its broken end were observed in the ground). (4) and (5) were found close together in the packing-soil of the eastern jamb-pit of $\mathrm{A}_{3}$ (a)'s S. door, and may be regarded as a pair. They can hardly be seen as door-hinges, however, since the hammered-over nail that survives intact in (4) indicates that the material to which they were attached was no more than $\frac{3}{8}$ inch thick. Again, the length and form of the rodlink attached to (4) hardly supports the idea that these were the hinges of a box or chest. They could perhaps have been the hinges of thin shutters (held shut by the swivels shown in Fig. 88?), but all in all it seems more likely that these were links attached to heavy leatherwork. Possibly they were parts of the harness for a draught-animal. Redeposited in Phase IV, they are probably of earlier origin and it is not impossible that they refer to the period in which A2's enclosure was in use. (6) lends itself better to identification as a simple hinge, such as was found at Gilton, near Ash in Kent, by Faussett (ref. given in n. I ig above).
Fig. 89 (7) renders the soil-stain left by the decay of what appears to have been a wall-hook, at the southern end of A4's partition-wall.
Fig. 89 (8) reproduces the field-drawing of another physically irrecoverable object: possibly a purse-mount or 'strike-a-light' of the type so familiar on Anglo-Saxon sites, but present also at Garryduff in Ireland. ${ }^{127}$ Stratified in the demolition-trough of A4, this piece presumably belongs to Phase III.
Fig. 89 (9) shows a spiral object of iron which survived merely as a soil-stain capped by thin flakes of rust, side by side with the remains of a tapering iron tube which appeared not to have been connected with it. Redeposited during the demolition of A2's south doorway these ghosts of objects were flanked by the exiguous remains of iron nails evidently withdrawn from heavy timberwork; and so it is likely that the spiral too belonged to that building or to some structure within it. Obviously it cannot in itself have served a 'practical' purpose, and must have been a decorative finial (surely not the head of a crudely diminutive crozier, but an appurtenance of the doorway?). On seeing the spiral traces in situ, Professor Richmond urged that it 'betrayed the characteristic twist of a Celtic hand', while agreeing that the spiral is one of the almost universally and inevitably basic motifs that spring from the techniques of decorative ironworking. However that may be, this piece and the traces of white plaster associated with Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ are the only clues we have to the ornamental aspects of Yeavering's major buildings.

Fig. 90 ( $I$ © 2), S-hooks, and (3) and (4), staples, hardly call for comment. (5) and (6), however, are seemingly unparalleled and are of special interest. Both were drawn in situ,
because these pieces were in the last stages of decay, and the rendering of (5) in particular is somewhat more 'ideal' than it should be; but these ghostly objects were subjected to prolonged dissection and analysis in the field and there can be no doubt but that they were cleats of the kind still used in some small boats, and in those old-fashioned kitchens that still sport a levitating 'clothes-airer'. Found almost symmetrically opposed ( $(5)$ in the north and (6) in the south wall-trench) in the redeposited material securely associated with the demolition of Building A2, roughly on the line of the supposed 'high seat', they suggest that at this point there may have been curtain-like screens of cloth that could be dropped or drawn by means of controlling cords. Sic transit . . . indeed, if these fragments of rust are all that remains of the rich hangings that are given literary reference.

Fig. 90 (7-I3) incl. represent the iron timber-cramps of various buildings. (12), possibly from the demolished Building $\mathrm{Ar}(\mathrm{b})$ but more probably from the abandoned $\mathrm{Ar}(\mathrm{c})$, is especially noteworthy because it shows the complete form at its least distorted. (I3) is presumably a large cramp, although its outline resembles a crude latch.

Fig. 90 (I4-I6) (r4 particularly) appear to have been 'cup-hooks' rather than the broken ends of timber-cramps.

Fig. $9 I$ shows nails of three types and various sizes. Type I is the ordinary form of nail with a relatively small head (( $\mathrm{I}-3),(6-8)$ incl.). Type 2 is distinguished by its large, flat head (4), (5) and (9). (4) was found close to the south door of Building $\mathrm{C}_{4}$; (5), with burnt debris beside the threshold of $\mathrm{A}_{3}(\mathrm{~b})$ 's south doorway. The possibility that this form of nail was used in the furbishing of the doors themselves is enhanced by the evidence of (9), which represents four such nails seen in situ close to the doorway of the burnt Grubenhaus Ci. This exceptional survival was destroyed by a modern act of vandalism before it could be examined and lifted, and the illustration is transcribed from a note-book sketch drawn in failing light; but several observations can be put on record. First, the planks through which these nails passed were either decoratively grooved, as with a V-gouge, or were under half the width of Cr's wall-timbers. Secondly, they were in their surviving form (i.e., charcoal) not more than $\frac{3}{4}$ inch thick - which suggests that an effective iron saw might well have figured in this catalogue. Thirdly, the edges of the rectangular structure were bound with thin iron plate hammered round the sides of the planks. Fourthly, it appeared that the nails served to attach the assembly of planks to a heavy frame (seen only in fragments during 'post-mortem' dissection, but seemingly about 2 inches thick and defining a slightly smaller rectangle that left the iron-bound edges projecting a little more than $\frac{1}{2}$ inch on two sides at least). Fifthly, a thin, amorphous 'crust' separated the undersides of the nails from the upper surface of the burnt planks: if this represented an outer facing of hide, as was thought in the brief moment of confrontation with the evidence, this use of large-headed nails may be seen to have had a functional as well as a decorative aspect. (Needless to say, perhaps, the drawing shows the nail-shanks diagrammatically-as it were in X-ray terms.) Possibly, then, some of the doors at Yeavering were clad externally in studded leather, in Phase IV. The form and appearance of the doors of $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, the major halls of Phase III, is matter for conjecture; but it may be significant that the 'ghosts' of nails associated with the doorways of $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ appeared to be manifestations of the flat-headed type. This, of course, carries no


Fig. 90. Iron objects: 1 and 2, S-hooks from $\mathrm{A}_{2} ; 3$ and 4 , staples from $\mathrm{A}_{4} ;$ and $\mathrm{A}_{1} ; 5$ and 6 , cleats from $\mathrm{A}_{2}$; 7 from $\mathrm{A}_{2} ; 8$, from $\mathrm{A}_{4} ; 9$, from $\mathrm{D}_{2}(\mathrm{~b}) ; r o$ and $I_{1}$, from $\mathrm{A}_{3}(\mathrm{~b}) ; 12$, from $\mathrm{Ar}_{1}(\mathrm{a})$ or $(\mathrm{b}) ; 13$, from $\mathrm{A}_{3}(\mathrm{~b}) ; r_{4}$, from $\mathrm{A}_{2} ; I_{5}$, from $\mathrm{D}_{2}(\mathrm{~b}) ; 16$, from $\mathrm{D}_{5}$. Scale $\frac{1}{2}$.


Fig. 9r. Iron nails: $I$ from $\mathrm{A}_{3}(\mathrm{a}) ; 2$ from $\mathrm{A}_{3} / 4 ; 3$ from $\mathrm{D}_{1} ; 4$ from $\mathrm{C}_{3}$ (a)'s S. door; 5 from $\mathrm{A}_{3}(\mathrm{~b})$ 's S . door; 6 from $\mathrm{A}_{3}(\mathrm{~b}) ; 7$ from $\mathrm{C}_{4}(\mathrm{~b}) ; 8$ from $\mathrm{D}_{5} ; 9$ from $\mathrm{CI}: I O$ and $1 I$ from $\mathrm{A}_{3}(\mathrm{~b}) ; 12-15$ from $\mathrm{AI}_{1}(\mathrm{c}) ; 16,17$ and 19 from $\mathrm{A}_{3}(\mathrm{~b}) ; 18$ and 20 from $\mathrm{Ar}_{1}(\mathrm{c})$. Scale $\frac{1}{2}$.
particular implications in point of date or human identity, since the pointed iron nail both big- and small-headed - has been playing its useful part in N.W. Europe for at least two thousand years. The smaller forms especially (including the humble tacks, (7)) find parallel in Ireland as weil as Britain during the relevant period.

The third type of nail (Fig. 9I (Io-20)) is more distinctive: the clinch-nail with a diamond shaped rove, found at Yeavering exclusively in association with Buildings $\mathrm{Ar}_{\mathrm{I}}(\mathrm{c})$ and $\mathrm{A}_{3}(\mathrm{~b})$ and there certainly a special feature of Phase V. Two sizes of clinch-nail were so commonly in evidence as to appear characteristic: on the one hand, the small version, implying extensive use of plankwork $\mathrm{I}_{2} \frac{1}{2}$ to $\mathrm{I} \frac{3}{4}$ inches thick ( $10-14$ ) ; and on the other a larger form with a span of $2 \frac{1}{2}$ to $2 \frac{3}{4}$ inches ( $16-18$ ). A third size, made to deal with timberwork of $3 \frac{1}{2}$ to $3 \frac{3}{4}-\mathrm{inch}$ thickness ((19) and (20)), appears to have been exceptional. While the instances of the form in all its sizes could be multiplied five-fold at least by reference to rusty 'ghosts' in the soil, the illustration observes the law of proportional representation. Only the upper of the two roves shown in isolation in (15) was found unattached to a shank: its straightness in side-elevation suggested that it had never been used - rather, that it had been dropped by a ladder-borne carpenter during Yeavering's final phase of construction.

Yeavering's diamond-roved clinch-nails are precisely paralleled by the rivets of the Sutton Hoo ship. ${ }^{128}$ There, too, the smallest size appears to occur most frequently, and it seems that the plankwork of Yeavering's last halls was of almost exactly the same thickness as the shell of the Sutton Hoo ship. The largest examples at Yeavering closely conform to the rib-bolts of the ship.

The clinker-building technique has a long history. A not dissimilar nail-form has occurred in a late La Tène hill-fort in France, ${ }^{129}$ and a square-roved version can still be examined in situ in the Nydam ship of about AD 400 . A few small, spindly clinch-nails with diamondshaped roves appear in a late phase of the impressive settlement-site at Feddersen Wierde near Bremerhaven. ${ }^{130}$ Clinch-nails found in Anglo-Saxon graves in Kent have been alleged to be coffin-rivets, ${ }^{131}$ and as such would give interesting insight into the non-maritime carpentry of S.E. England; but the nails in question are so large that this interpretation must be doubted, especially in view of the primitive methods by which the graves were excavated. It seems rather more likely that what is represented is a 'token' form of boat-burial. ${ }^{132}$ Certainly it is in boats and ships - from Nydam, through Vendel to the full flood of the Viking Age and onward into our own day - that the building technique served by the clinchnail is most familiar. Its occurrence inland at Yeavering presumably reflects the influence of naval carpentry in a kingdom politically centred on the North Sea coast.

## (v) Glass (GLI and GL2, Fig. 86 (b))

$G L_{I}$ and $G L 2$ are segmented glass beads. GLI was the only object accompanying an unurned cremation, in a small pit cut through the filling of a field-gully (elsewhere interrupted by Building E) at the southern edge of Area E. GL2 was found, unstratified, at the edge of the sand-quarry, at a point approximately $5^{\circ}$ feet to the west of Building $\mathrm{D}_{4}$ 's north-western corner. As seven fragments of cremated bone were found within a radius of 4 feet, it is likely that this bead too was originally associated with a cremation-burial; but the
bulldozer used to strip the area for quarrying had dug deeply into the subsoil, and the point remains uncertain.
$G L_{I}$ consists of three segments, with one knocked end; varies from 4 to 5 mm in diameter, and is 9 mm long. Its colour is best described as a dark bluish green, when seen in ordinary daylight; but more nearly approaches a cerulean hue when light is passed through it (there is no opaque core). Fine air-bubbles are present in the glass.
$G L 2$ has two segments, with one knocked end; varies from 5 to 6 mm in diameter, and is about 6 mm long. It passes daylight far more readily than GLi, and its light greenish-blue colour has a more positively cerulean tint. Fine air-bubbles are again present, and there is no opaque core.

## Discussion

These beads do not show the features characteristic of the well-known prehistoric series and the stratification of GLi demonstrates that it was deposited during or after the lifetime of the 'Celtic' field-system. The late Dr F. S. Stone had no hesitation in suggesting that both were made in the early centuries AD.

While both are unusually small and precise in technique, they are on the whole better matched in the Roman Iron Age than later - the known 'Dark-age' examples are more lumpy in form. The greenish tinge in the Yeavering pieces is uncommon, for deep blue is the characteristic colour in both the Roman and the postRoman series; but the chemical difference required to explain the variation is so slight as to suggest that the point is not one of crucial significance. ${ }^{133}$

Mrs C. M. Guido, whose extensive study of early beads promises to enlarge their archaeological usefulness, has kindly examined the Yeavering pieces and concludes that they are both most likely to belong to the Roman period. Mrs Guido points out three particularly close analogues to GLi, respectively from Chesters (Aesica), third-fourth century, Silchester, first-fifth century, and Carrawburgh (Procolitia), second-fourth century; and likens GL2 to a possibly third-century bead from Cadbury Castle, Somerset.

Thus GLi and GL2 most readily find context in the Roman Iron Age, and probability at present favours a central date somewhere about the third century. As the comparative evidence grows, there may be need to alter this tentative conclusion; but it accords so well with the local context of GLr at Yeavering that the margin of doubt is relatively small. GLi was associated with one of five unurned 'token' cremation-burials which were inserted into the north-south gullies between 'Celtic' fields (Fig. 73). Thus, deposition must have taken place either during or after the lifetime of the fields. The absence of such burials from the fields themselves suggests that cultivation was still in progress at the time in question (it seems improbable that the burials would be placed where they would immediately be disturbed by the plough); and, moreover, it is unlikely that the gullies would remain distinctly visible - or, for that matter, significant - for any great length of time after the fields were abandoned. Finally, the history of Yeavering as a burial-place can be seen to fall into two contrasting chapters. Up to the Roman period, only cremation is in evidence; whereas inhumation is characteristic of all the post-Roman phases in which the place was used as a settlement-site. Hence it would appear that the watershed in funerary custom lies in or very near the Roman centuries, and the burial with which GLr was associated is best regarded as representing the tail end of the older local tradition. The dating of GLi is a matter of some consequence, because it bears on the chronology of the field-system. As things stand there is rather more than a possibility that the fields remained under the plough during the second and third centuries AD.

## (vi) Objects of Stone (Fig. 92)

Struck flakes of flint (and occasionally of chert) occurred as strays in the overburden, some of them unmistakably mesolithic; but as there is a lack both of context and of specific forms


Fig. 92. Objects of stone.
Scale $\frac{1}{2}$.
it would be pointless to illustrate and discuss them. The whole body of relevant, stratified, lithic material is given in the following catalogue.

Fig. $9^{2(r)}$, from the smooth and almost perfect plane of the face shown on the left-hand side of the drawing, appears to have been a rubbing- or grinding-stone of some kind; but it is possible, nevertheless, that this object is not an artifact. Of local (basaltic) stone, it was found in a small pit adjacent to the Western Ring-ditch, during confirmatory excavations carried out in 1962 .

Fig. 92 (2) is a fragment of a large whetstone, fashioned out of a hard, dark sandstone that occurs locally as a glacial erratic. Found embedded in the uppermost level of the packingsoil in Building B's west wall-trench, it has some claim to antiquity despite its modernity of form.

Fig. 92 (3) is a fragment of a rubbing-stone made from a large, rounded pebble of sandstone. Its working-surface is well worn and seems to have been prepared. This piece was stratified in the debris of Building Cr , and is locally blackened by contact with fire.

Fig. 92 (4) represents a broken quern-stone found in the packing-soil of the shadowy Building $D_{7}$, the last remains of which were found hanging on the quarry-edge in 1952. Probably this object was derived from the scatter surrounding the recently ploughed-out settlement, coeval with the field-system, on the whaleback's N.W. knoll. This piece, like the last, was made from a small, smoothly worn, boulder such as occurs commonly on the site itself and in the bed of the River Glen. It almost certainly represents the lower stone of a small saddlequern: its surviving end rises in a slight curve, due to more concentrated use and wear towards the middle section. The working-surface has the crêpe-rubber appearance typical of a prepared quern after long use: straight, lateral furrows visible under oblique light probably survive from the original dressing, but might betoken later renewal.

Fig. 92 (5) is a rod-like fragment of natural ochre, so faceted as to suggest that it was used either as a whetstone for fine cutting tools or as a crayon for large-scale colouring of some other material. Its colour could be closely matched by mixing the pigment known as Yellow Ochre with a very light grey; but the edges of some of its fine laminations (which are presented full-face, as it were, in the obverse and reverse views given here) readily take a polish and then acquire a touch of that cherry-red that is associated with haematite. This object, from the packing-soil of the Great Enclosure's final, outer palisade-trench (and so evidently derived from some earlier phase) has been repeatedly pondered, rejected and reinstated: at last, it seems worthy of submission even though it remains only questionably an artifact.

## (B) GENERAL DISCUSSION OF THE FINDS

The material falls into two main categories. On the one hand there is the pottery of Classes $I(A), I(B)$ and 2 , which forms its bulk and is unquestionably 'native'. On the other, is a small but distinct group, consisting of the pottery of Class 3 (possibly with the few Class 4


Fig. 93. Miscellaneous objects (daub and charcoal).
(A) Burnt daub, Building $\mathrm{D}_{2}$ (p. 98).
(B) \& (C), Charcoal: peg and post, Building $\mathrm{C}_{\mathrm{I}}$.
sherds as rider), the loom-weights, the Merovingian gold coin, the gold washer, the large inlaid iron buckle-hoop, and the clinch-nails, which is as clearly representative of some degree of Germanic cultural intrusion.

The native pottery cannot be dated with any precision, save by reference to particular external associations. For the most part, it could be set anywhere within a span of several centuries. All that can be said is that Class 2 appears here to be more characteristic of the late phases than the early. While the evidence, as a whole, suggests that the pottery series at Yeavering must begin during the Roman Iron Age, the absence of associated provincialRoman manufactures hardly allows a date before, say, 300 (the segmented beads, for which a central date about the third century seems to be indicated, occurred in isolation). It has been recognized for some time that the almost aboriginal ceramic tradition in question persisted well into the post-Roman era, and here it is seen to continue without interruption into the second half of the seventh century. Such material must be essentially an index to a way of life, and here the region itself imposed a cultural pattern stubbornly resistant to change.

Though the dating of the earliest phase of the site's occupation must thus be held in suspense, Phase II may be set within closer chronological limits, from the occurrence of Class 3 pottery in two of its buildings.

The pottery in question, as represented by yas (Fig. 84), has close affinities with certain cremation-urns in Anglo-Saxon cemeteries. On that basis a sixth-century dating would seem most likely; but here again it might be unwise to impose narrow limits of time on so simple a form. It is clear, nevertheless, that the two vessels of this class mark the beginning of Yeavering's first 'Anglo-Saxon' phase, and on all counts it is excessively unlikely that they were made later than the period $55^{\circ}-600$.

What is most remarkable is the fact that this type of pottery is represented by the two examples only. Nothing resembling it in form or fabric is in evidence during the remainder of the site's long structural history. Even if the ambiguous Class 4 ware (which is distinctly different in character) is assumed not to be native, the Yeavering township can show no more than four pots with a claim to 'Anglo-Saxon' origin. These examples are, in their own time, associated with and overwhelmingly outnumbered by the remains of Class I (B) vessels in the unmistakable native tradition, which alone - and without any perceptible sign of change - continues throughout the rest of the site's lifetime. There is only the smallest possible ceramic sign, indeed, of 'permanent' Anglo-Saxon residents at Yeavering, and that only in the one early phase. Any such immigrants as there were must have been few in number and quickly content to use the pottery made by British neighbours . . . to become, in modern jargon, 'integrated' into British society. The persistence of an Anglo-Saxon form of loomweight might be seen as evidence for survival of Germanic identity; but it could equally well be ascribed merely to 'native' adoption of Anglo-Saxon weaving equipment.

The objects of iron and bronze are for the most part of such simple character as to give little or no indication of the identity of their makers. The large buckle-hoop (Fig. 88 (I)) stands alone, and without clear context, as the one piece unassailably to be identified as an import from the sixth/seventh-century world of the south so susceptible to Frankish fashion. The belt-fittings found in the exceptional Grave BZ would not appear out of place in a poorly furnished Anglo-Saxon cemetery; but the buckle, on which judgement rests, is of a
type that was already widespread in early post-Roman times. In the last analysis it is the total contrast between Grave BZ and the others which suggests that the occupant of this grave was in some way distinguished from the native dead around him (see p. 245, Chapter 5 (I)), although the difference may be one of status only. Other objects (such as the knives and the key) from various parts of the site seem well at home in the native milieu, and it would be unreasonably uneconomical to claim them as Anglo-Saxon indices. The iron clinch-nails of the site's final structures, on the other hand, have no relevant analogues in the north but are exactly paralleled in East Anglia.

That link - such as it is - between Yeavering's last halls and the Sutton Hoo ship is strengthened by the discovery of the gold coin, Gi, which also helps to set Yeavering's chronology into sharper perspective. The hazards of dating by reference to single coins are well known, but two circumstances suggest that Gr may not be a wholly unreliable guide. First, it is reasonably certain that the coin was lost during the lifetime of the building, $\mathrm{A}_{3}$ (b), with which it is associated. Secondly, it is unworn, so that there is no reason to suppose that it was old when it was lost. ${ }^{134}$ The evidence indicates at least that the building in question was in use after 640, and would allow the coin to have been lost within a decade or two after that date. On practical grounds it seems unlikely that Building $\mathrm{A}_{3}$ (b) can have outlived the seventh century. $\mathrm{A}_{3}(\mathrm{~b})$ is the major building of Yeavering's Phase V, which ended with the site's abandonment, and the historical evidence will be shown in Chapter 6 to favour a date before 700 for that event. Hence, it may be concluded that the dating of the archaeological material considered here is bounded by an upper limit probably near or within the fourth quarter of the seventh century.

Phase V, then, might very well be roughly equated with the period $650-675$. Accordingly Phase IV would end by about 650, and Phase IIIC would belong wholly or in part to the first half of the seventh century (which would give particular point to the Anglo-Saxon analogues of the gold washer, G2). Consequently Phase IIIAB would have to end at latest within the earliest decades of that century, and there is obviously a possibility that it began before 6oo. As will be recalled, it is with the still earlier Phase II that the Class 3 pottery - for which a date within the period $55^{\circ}-600$ has been tentatively proposed - is associated.

While none of the objects found at Yeavering, save perhaps the coin, is of a type that can be dated with precision, the material does as a whole allow the long structural sequence to be set into a framework of absolute chronology. That the objects are so few, and mostly so poor in quality, must in itself say something about the terms and purpose of the township's existence. Fortunately the evidence is particularly clear in respect of the cultural identities involved. For some considerable period, at the outset, the cultural indices associated with the early timber structures on the site are wholly native. The beginning of that chapter could well lie in the fourth or fifth century, or even earlier. It appears to end soon after the middle of the sixth century, when two Class 3 pots (closely followed by the exiguous sherds of two ambiguous Class 4 vessels) mark the arrival of an intrusive, Anglo-Saxon element. Ceramically, at least, the second phase was one of cultural co-existence rather than replacement.

Both then and thereafter the products of native potters are overwhelmingly predominant; and, indeed, the only further clear reference to Anglo-Saxon domestic tradition in the smallfinds is the presence of intermediate-type loom-weights in later contexts. This evidence does not allow it to be supposed that there was ever any massive influx of Anglo-Saxons to the site or its environs; and the small-finds testify mainly to the constant presence in and around the township of British natives still holding securely to at least the humbler details of their own tradition. Some politically significant degree of involvement with the Germanic realms of the south is implied by the gold coin; but that, like the imposing buildings of the Yeavering township, need indicate little more than the expedient diplomatic and cultural posture of the Bernician aristocracy in the face of events. The redeposited buckle-hoop (Fig. 88 (i)) merely confirms that the final destruction of the Great Enclosure took place during the period in which Yeavering was used and patronized by Germanic overlords.

## (C) A NOTE ON THE POSSIBLE NATURE AND IMPLICATIONS OF THE WOODEN OBJECT IN GRAVE AX (Figs. 25 and 94)

The main element of this object is a wooden shaft with cylindrical bronze bindings. Near one end, three arms of equal length are set out from it at right-angles, so that if the shaft were viewed in end-elevation, they would be seen to form a squat $T$. The tip of each arm has a cylindrical binding of bronze. The shaft is terminated at this end by an inward-pointing iron spike, driven or fitted into it, and by a broader and thicker feature (probably also of wood) bounded by a curve of bronze wire. Two spherical pellets of bronze lie at opposite sides of the wire, close to one of its ends.

The other end of the shaft is featureless, unless, as is presumed, the precisely similar indications of wood and bronze found to lie obliquely under it represent a sundered part of the same object; in which case a second iron spike, larger and outward-pointing, is its lower terminal.

It is quite clear that the shaft was of something more elaborate than a spear. The out-ward-pointing spike, roughly conical in form, is in no way like a normal spear-head; although slight extensions of the rusty stain around it do suggest that its upper end had an open socket. It seems reasonable, on all counts, to regard the other end, with its cross-pieces and bronze fittings, as the 'top' of the object. The three arms are indeed the crux of the matter. It is reasonably safe to assume that originally there was a fourth arm, the traces of which were either destroyed or passed unnoticed in the disturbed upper levels of the gravefilling. Thus the object appears possibly to have been a tall shaft with such provision as allowed it to be stood upright in the ground; with four cross-pieces, and with an upper terminal surmounted by bronze wire.

The function of the upper terminal is of vital importance to understanding of the object as a whole. It can hardly be supposed to have been a tool 'shod' with bronze, with any of the implications of that term; for had it been required to penetrate any resistant surface, with the great length of the shaft behind it, it would surely have been edged with, or made
wholly of, iron. Thus, it is unlikely to have been the effective end of a weapon or an implement, and must be supposed to have served a decorative rather than a strictly utilitarian purpose. Such interpretation sets the object as a whole into a better perspective, with which the bronze bindings of the shaft and 'arms' would seem to be in keeping. It now appears as, in some sense, a ceremonial object; to be called a staff, perhaps, but so resembling the


Fig. 94. Reconstruction of bronze-bound wooden object laid along long axis of Grave AX (see also Fig. 25).

Roman vexillum as to invite the conjecture that it was some form of standard. It is not suggested that this is the true identification, but the exceptional character of Grave AX, especially in its situation, is bound to occasion comparison of this object with the 'standard' which accompanied the Sutton Hoo ship-burial. ${ }^{135}$

There is of course obvious context for such an object in Northumbria. Bede makes special
reference to the fact that Edwin's vexilla were not only carried before him in battle, but that his standard-bearer preceded him when he rode about his cities, townships or provinces in time of peace; and he adds that when Edwin went on foot that sort of vexillum which the Romans call tufa, and the English thuuf, was borne in front of him. ${ }^{136}$ It is at least an interesting coincidence that Grave AX belongs to Phase IIIAB or IIIC (more probably the latter), which the small-finds of Phase II and V set into the first half of the seventh century.

The powdery traces of the upper terminal of the Yeavering object could, by some stretch of the imagination, be thought possibly to represent the remains of an animal-effigy (Fig. 94 (c)) somewhat akin to the bronze stag on the Sutton Hoo standard. In the present case the figure could only have been made of wood; with the spine picked out in bronze wire, the eyes formed of inset bronze pellets, and the hooves possibly cased in the same metal. The conspicuous 'hook' at one end of the bronze wire would then require the animal to have had horns, or possibly large ears. In such terms this hypothetical creature could not have been a stag. It could be thought to have been boar-like, ${ }^{137}$ but for the convex curve of the 'snout'; but if this was an animal-effigy at all, which is obviously uncertain, it would seem more closely to have resembled a sheep or a goat, or a crested bird.

If this object were accepted as having been some form of 'standard', it would appear a poor thing in comparison with the great iron object from Sutton Hoo; and its shortcomings would suggest that it was a mere token made specially for the very curious burial with which it was associated. There is, however, an alternative explanation which (although it has no known archaeological precedent) is particularly in harmony with the curious setting of this burial. That is, that the wooden object was - or betokened - an instrument akin to the groma used by Roman land-surveyors.

A grave furnished with apparatus for the setting-out of alignments and right-angles would, in the abstract, seem a most unlikely proposition. But it is precisely for its association with a structural complex notable for accuracy of setting-out and systematic mensuration that Grave AX has specially been remarked. That this grave should have been laid out on a major alignment, which was the east-west axis of structural symmetry in two successive phases and had as its point of origin a wooden orthostat set on an earlier burial-mound, is suggestive in itself of 'ritual' intention; and it would be fitting for the particular nature of that intention to have been expressed in the furnishing of the grave, also.

The present hypothesis has the merit of economy, in that it allows a number of otherwise inexplicable features to be regarded as related aspects of a single coherent purpose. If it could be shown beyond doubt that the object in Grave AX was indeed some form of crossstaff, one could perhaps see in the whole strange pattern of circumstances some reference to the status of the agrimensores whose work is displayed at Yeavering. In view of the devotion to geometry displayed in the setting-out of the pages and patterns of the Lindisfarne Gospels, ${ }^{138}$ at the end of the same century, it is even conceivable that among vestiges of ancient learning preserved and transmitted by the earlier local priesthood was some memory of the geometry of the Roman land-surveyor. The presumably decorative aspect of the wooden object's bronze terminal would allow, in this special context, of the whole having been a ceremonial symbol of a cross-staff; and it would be no more unreasonable to suppose that a land-surveyor could use his cross-staff in the afterworld than that a warrior there could wield his sword.
(The speculative possibility that the person buried in Grave AX was the land-surveyor who set out Building $\mathrm{A}_{4}$ is better not pursued, since it merely invites the frivolous thought that he was laid at the door of his own error (see p. 129).)


#### Abstract

* * * Since the above note was written, the British Museum Research Laboratory has shown that the Sutton Hoo stag-effigy belonged to the ceremonial whetstone, not to the 'standard' (which emerges more plausibly as a standard-lamp). Now that the Yeavering object can be judged on its own merits, without reference to external standards, the suggestion that it was essentially a decorated cross-staff gains force. Nevertheless, both from its ornamental finial and from the context of its deposition, it may still most reasonably be called a 'ceremonial staff', whatever its practical or symbolic use may have been. (Perhaps $n .136$, here, after all, gives a clue to the identity of the watcher on the threshold?)


# GHAPTER FIVE THE ARCHAEOLOGICAL AFFINITIES OF THE TIMBER STRUGTURES AND OTHER FEATURES OF THE SITE 

with some related evidence from other sources

The various structural features of the site are discussed here in the following sequence:
(A) The field-system.
(B) The palisaded, fort-like Great Enclosure.
(C) Buildings A5 and D6 (Phase IB).
(D) The trench-built halls of Phases II, IIIAB and IIIC.
(E) The trench-built halls of Phases IV and V.
(F) The sunken-floored buildings of Phases II and IV.
(G) Building E.
(H) The graves and standing posts.
(A) The Field-System (Plate 3 and Fig. 73)

In plan the Yeavering field-system closely resembles the most regular among the several varieties of 'Celtic' field-system familiar in southern England. Clearly it was not a product of gradual accretion but was laid out as a whole. Its most unusual feature is the division of one field from another by gullies, where normally there would be narrow strips of unploughed ground heightened by piecemeal linear dumping of stones picked out of the ploughsoil.

The date of the Yeavering fields and the identity of their makers have been discussed already (in Chapter 1, pp. 21-22), and there is no need here for more than a convenient summary of the alternative hypotheses that are possible. The first relates the Yeavering field-system to the Yeavering Bell oppidum, and requires it to have been established not later than the first century bc or the first century ad. The second hypothesis, on the other hand, allows the field-system to have been a response to Roman encouragement of native food-production. It is equally difficult to judge the date at which the fields were abandoned; but it is likely that they were still under cultivation when unurned cremations were inserted into the gullies that defined the ploughlands. Since one securely stratified cremationburial was accompanied by a bead (GLr, see Chapter 4, pp. 193-4) with good RomanoBritish analogues, there is a distinct possibility that the site of the future township remained wholly or partly under the plough until the third century or even later.
(B) The Great Enclosure (Figs. 12, 26, 29, 30, 36 ; Plates 3 and 4 )

The plan of this fort-like structure is known with any degree of completeness only in its ultimate form, in which it is unparalleled in any relevant period abroad. ${ }^{139}$ It is most likely that in its final (nominally sixth) structural phase it was simply a more massive reproduction of what had stood before; and possibly it held to the same general lines throughout its existence, as is suggested by the roughly coincident courses of demonstrably earlier and later features (Fig. 26). Further, more extensive, excavation may throw more light on its early phases, but clearly much was destroyed by the huge trenches of its last and greatest rebuilding.

Nevertheless, the essential nature and affinities of its earliest structures are reasonably clear. In its initial phases it was defended by palisades that were set in narrow, relatively shallow bedding-trenches (i.e., as distinct from series of separately dug post-holes). Minor 'forts' and settlements so distinguished are among the characteristic features of the preRoman and early-Roman Iron Ages at this latitude, as the impressive work of the Royal Commission in neighbouring counties, outstandingly in Roxburghshire, ${ }^{140}$ has amply demonstrated. Fieldwork shows that palisaded enclosures are widely distributed in Northumberland, ${ }^{141}$ and several sites in this region have been excavated. ${ }^{142}$ The trench-built palisade, indeed, is well represented throughout the Tyne-Forth province, and of course elsewhere; $;^{143}$ and a similar technique is to be seen in the 'ring-ditch' houses of the northern Iron Age. ${ }^{144}$

Thus the Yeavering enclosure appears to be perfectly at home in its region, and must be regarded as a 'native' work. It takes its place geographically among a series of sites, in the northern Cheviot area, which forms an important part of the remarkable concentration of native settlements that has been shown to run eastward from the Kale Water and the upper reaches of the Bowmont Water. ${ }^{145}$ There is, however, a chronological problem, in that excavation has not hitherto demonstrated the local persistence of the trench-built palisade tradition beyond the second century $\mathrm{AD}^{146}$ whereas the Yeavering enclosure certainly survived well into the post-Roman era. The terms of that problem may be set into perspective by consideration of two excavated sites of the north-western Cheviot area, within a tenmile radius from Yeavering.

The first is Hownam Rings, ${ }^{147}$ Roxb., where excavation resulted in recognition of four structural phases. In Phase a (undated, but assumed to refer to the first century ba or thereabouts) a single-palisade defence was constructed in a continuous trench, and later replaced by another. In Phase 2 the site was fortified with a stone wall (closely resembling that of the Yeavering Bell oppidum). In Phase 3, the defences were remodelled, and multiple ramparts were constructed. The lower stone of a quern, dated to the second half of the first century AD, was associated with the destruction of the wall of Phase 2.

The second example is Hayhope Knowe, ${ }^{148}$ Roxb., where excavation revealed a palisaded enclosure somewhat analogous in plan to the later Yeavering fort. Its defences consisted of twin palisades in continuous trenches, which were joined together as loops at either side of both the east and the west entrances. ${ }^{149}$ These 'hairpin ends', as the excavator called them, show at the east entrance slight but possibly significant local widenings, ${ }^{150}$ which seem vaguely to presage the circular entrance-works of the Yeavering fort's last phase. Between
them runs a straight groove, bounded at each end by a deeper depression (one, at least, was a post-hole); and this must represent the structures of a gate. The Hayhope enclosure was assumed, almost entirely on negative evidence (particularly the absence of Roman pottery), to belong to the first century BC ; and a later, apparently unfinished, outer rampart-andditch was thought to reflect the unrest within the period up to AD ioo. A third palisadetrench was interpreted as an internal revetment to this secondary rampart; but the point is open to challenge, particularly as the 'revetment' was complete, whereas the rampart was not.

At Hayhope, twelve circular huts occupying the interior of the enclosure were of 'ringgroove' type (their walls set in shallow gullies). At Gray Coats Hill ${ }^{151}$ a similar twin-palisaded enclosure with entrance-loops represents the form in the guise of an Einzelhof; and there, too, the hut is of ring-groove type.

The particular significance of the Hayhope Knowe site, in the present context, becomes apparent in the light of recent excavations carried out by Mr. R. W. de F. Feachem on Harehope Hill, ${ }^{152}$ about 4 miles N.W. of Peebles. Here (Fig. 95) the entrance-loops of a twin-palisaded 'fort' are seen to have been developed, in its second phase (Harehope II), in such a way as to produce two 'bastions'. Each is defined by a palisade-trench describing about $270^{\circ}$ of a circle (the northern bastion has not been excavated, but the surface-indications are so clear that Mr Feachem has no doubt as to its correspondence with the one that has been investigated). Within the southern bastion lies a symmetrical setting of four very large and deep post-holes that must, as Feachem concludes, be the remains of a tower which had a counterpart in the northern bastion. The wide gap between the entrance-bastions is narrowed by two lengths of palisade-trench, each inwardly terminated by a deep post-hole marking one side of the actual gateway.

Neither Harehope I nor Harehope II can be dated by the small-finds, which were few and unrevealing; but (although the Harehope palisades were unusual in being set into low mounds) there is an obvious kinship between the former and the Hayhope enclosure. Harehope II is equally clearly related to Harehope I (Fig. 95); so that the adoption or invention of the bastioned entrance towers may be seen simply as a relatively late addition to earlier native tradition. And when Fig. 95 is compared with Figs. 12 and 36, it is apparent that the Yeavering enclosure, as it is known in its final form, is most likely to have been the product of further development on the same model.

Reference to a model is perhaps appropriate; for it is by no means certain that the idea of the Harehope II entrance-works was of wholly native inspiration, and the present writer feels that this innovation might reasonably be thought possibly to reflect the influence of timber-built Roman military works in or near the region. The gateways of early Roman forts could offer just such a model as is postulated; for example, the west gate of the Agricolan fort at Oakwood, ${ }^{153}$ Selkirkshire. The setting of the towers in Hayhope II (and of at least one building at the entrance of the Yeavering palisade-work) within near-circular enclosures might be likened also to the structural arrangements in the type of Roman signal-station locally exemplified on Eildon Hill North, ${ }^{154}$ a nodal point in the area between Harehope and Yeavering.

If the remarkable development of the Harehope entrance-works is rightly attributed to the influence of Roman works in the vicinity - and it seems to require some such explanation


Fig. 95. Plan of palisade-enclosure at Harehope, Peeblesshire (after Feachem).

- it follows naturally that Harehope II cannot be dated earlier than the second half of the first century AD. It would be tempting to suggest that Harehope II could have been built in the third or fourth century AD, after Roman occupation of the intramural region ended; but as there appears to be continuity between Harehope I and II, the absence of Roman manufactures in both phases seems to deny that possibility.

It was at one time supposed that native palisade-enclosures were exclusively early features of the pre-Roman Iron Age in the north, simply because a few had been shown by excavation to have been replaced by works of a different character. But the situation is put into truer perspective by the realization that, in each of those cases, it was only the existence of later ramparts or walls that drew attention to the site in the first place: the palisade-trenches were discovered incidentally in the course of excavation, and usually unexpectedly. Hence, the basis of archaeological selection was bound to produce a series of superseded palisade-works. It is only since Dr Steer ${ }^{155}$ pointed out the faint surface-indications that betoken the presence of 'pure' palisade-sites that the full range of the material and problems awaiting investigation has become dimly perceptible. Thus it is against the background of a relatively new study that the connexions between such native works as Hayhope, Harehope II and the Yeavering 'fort' have to be viewed. Formerly there was merely a general probability that native tradition in palisade-construction survived the Roman Iron Age, if only on the negative grounds that there would seem to have been no convincing reason for its extinction. Now its persistence into the post-Roman period can be demonstrated, and it is likely that other examples will soon be recognized. Nevertheless, it is salutary to reflect that the Yeavering 'fort' would certainly have been ascribed to the pre-Roman period had it not, at the end of its life, come into precise stratigraphical relationship with post-Roman structures dated both by archaeological and historical evidences. Save in such extraordinary circumstances, it may well remain difficult to distinguish between later and earlier examples of the same tradition. Structural analogy will be a guide to dating only in the broadest terms. Truly circular entrance-works may prove to be special features of the Roman and post-Roman periods, and it is highly probable that extremely deep palisade-trenches began early in the seventh century; but the basic type of enclosure must be regarded simply as an index to certain enduring social and economic conditions of northern life. In one form and another it reflects a particular need that must have existed as long as there were local pastoralist societies exposed to the threat of depredation by wolves, bears and their own kind. The end of timber-built enclosures and houses is likely to have come about earliest in upland and marginal places where stone was most easily accessible, and in such environments timber is seen actually to give way to stone during the Roman Iron Age. In the most fertile lowland areas, however, wood is likely longer to have remained a more convenient material; especially - paradoxically enough - where determined innovators were systematically laying ancient woodlands low (pp. 333-4). Were our economic studies further advanced, we might be able to see the history of the pre-Roman, Roman and post-Roman Iron Ages in the north in terms of a changing balance between pigs, sheep, oxen and grain, with climate, soils and predators as the governing factors. Meanwhile, the general likelihood that the rural communities of the intramural region remained in need of defensible enclosures for their stock well into the first millennium $A D$ seems to be illustrated by the characteristics and history of the fort-like enclosure at Yeavering (pp. 18-20).

The final destruction of the Yeavering enclosure will be shown in Chapter 6 to have come almost certainly at the beginning of the fourth decade of the seventh century; but it is more difficult to discover the date of its beginning. The form of the earlier palisades could be matched locally in the last centuries Bc or the first centuries AD; but, as it is possible that the 'Great Enclosure' was laid out after the field-system, it might be unwise to assume that the first palisades came into place before the third century. But can all the known or inferred structural phases be fitted hypothetically into the period between, say, AD 250 and 630 ? Four major phases can be recognized with certainty, Palisades $\mathrm{FP}_{2}$ and 3 may represent another, and the great trenches of the nominally fourth phase might well have destroyed all trace of one or more others. For the purpose of discussion it seems advisable to assume that there were five phases at least. If 250 were taken actually to be the startingpoint, that would give each phase a duration of about seventy-five years, which might well be in any case the absolute maximum possible. Twenty-five years per phase is probably the reasonable minimum to be allowed, and that, working backwards from 630 , gives an initial date around 500 . All in all, it is possible to suggest that the 'fort' probably began its life after $25^{\circ}$ and before 500 ; but the evidence does not at present justify any attempt at greater precision. The formula AD $375 \pm$ ? 125 , cumbersome and arbitrary though it is, seems to fit the facts best, when Roman trade-objects are wholly lacking.

To sum up, although the date of this structure's inception cannot be closely determined, it is probably to be set within or very soon after the Roman Iron Age. That, in its final form, coeval with Building A4, the 'fort' emerged in post-Roman times bearing so marked a resemblance to Harehope II must mean that there had been during the early centuries AD a general continuity of native tradition in the region. ${ }^{156}$ The great foundation-trenches which finally gave this work at Yeavering its extraordinary character have no known parallel in Britain or abroad; but, granted that there was then some appropriate 'institutional' stimulus to greater achievement, they may be seen as marking the ultimate development of the ancient native practice of palisade-construction.

## (C) Buildings $\mathrm{A}_{5}$ and D6 (Phase i) (Figs. 67 and 54)

These, earliest of all trench-built habitations at Yeavering, are discussed separately for two reasons. First because they are the only dwellings free, intrinsically and in their associations, from any suspicion of Anglo-Saxon influence; and secondly because they alone, among the trench-built structures of this site, are representative of framed wattle-and-daub construction.

This is an ancient, widespread and persistent form of construction, and it would be hazardous indeed to attribute such simple buildings to one cultural tradition rather than another by reference only to the plan and material of their walls. Like the native pottery that was associated with them, they represent in their above-ground aspect something approaching the lowest common denominator of their kind. Their foundation-trenches, however, are a distinguishing feature that sets them apart from some other dwellings with which, in size and material, they might otherwise be compared. The pottery referred to links them, albeit loosely, with the palisade-trenches of the Great Enclosure in its middle phases; and the use of trench-construction in $\mathrm{A}_{5}$ and D6 appears to be a further demonstration of that same connexion.

These little buildings evidently belong to the native world, but they recall that greater tradition of building in timber which was displayed to the northern Britons by Roman military works of the early centuries AD. For example, the foundation-trenches of timber buildings in the Agricolan fort at Fendoch, ${ }^{157}$ Argyllshire, excavated by Professor Richmond, were in no important respect different from the foundation-trenches of $\mathrm{A}_{5}$, in particular; and they carried the same basic form of construction - vertical timbers set at intervals with panels of wattlework between. Intermission of the trenches at doorways, and their occasional near-intermission at corners are other features found in $\mathrm{A}_{5}$ and D 6 that have also been remarked in connexion with Roman timber buildings. ${ }^{158}$ Thus, in point both of constructional method and material, there would be no difficulty in the way of attributing the characteristics of $\mathrm{A}_{5}$ and D6 to the stimulating effects, direct or indirect, of Roman timber building practice on native tradition, into which the construction of palisades in trenches had entered long before.

The strongest reason for concluding that these buildings are in some way representative of Roman influence lies in the very fact of their rectangularity. Not the least effect of Roman conquests in Britain was the imposition of impressive rectangular buildings on landscapes and societies that were formerly distinguished by use of circular houses. The round house died hard in Britain, and locally survived into the post-Roman era; but there is evidence to show that before the close of the Roman Iron Age the rectangular form was gaining favour even in the areas marginal to the Roman province. It was inevitable that the intramural region - critically exposed as it was to the effects and influence of Roman military works in timber at an early stage, and later intimately familiar with the stone buildings of the Hadrianic frontier and its vici - should ultimately adopt the form so consistently associated with superior power. The process of change is illustrated by the sub-rectangular houses built at a late stage in the long history of Traprain Law, 159 and its effectiveness throughout the Tyne-Forth province is demonstrated by various other examples. ${ }^{160}$ Among those the most directly relevant instances are the two rectangular huts discovered within the Yeavering Bell oppidum in 1959 (p. 6), with one of which were associated scraps of native pottery closely resembling the Class $I(A)$ ware found in the palisade-trenches of the lowland enclosure at Yeavering. Those particular huts cannot be dated with any approach to precision, but it is not unlikely that they more or less directly succeeded the two circular huts nearby that yielded small sherds of Samian ware and two late-Roman minimi (respectively of the late third and early fourth centuries).

A similar cultural process is seen to have been taking place in other areas, such as Westmorland, ${ }^{161}$ in late-Roman and immediately post-Roman times. It is nowhere better demonstrated than in Wales, where native sites ranging from hill-forts ${ }^{162}$ to enclosed hutgroups ${ }^{163}$ display some rectangular and sub-rectangular buildings from the Roman period onwards, often accompanying circular huts or houses. Commonly the rectangular buildings have but one door, usually in the middle of a long wall; but at Gateholm, ${ }^{164}$ Pembs., in a settlement of the Roman period that possibly continued into the post-Roman era, subrectangular huts akin to those at Traprain have opposed doors in the long walls, as in $\mathrm{A}_{5}$ at Yeavering.

A notable feature of the earliest rectangular buildings that appear in native contexts in the Highland Zone of Britain (and one demonstrated in all the examples given above) is
their squatness of proportion, in plan. Typically, their length/width ratio ranges roughly between 1.5: I and 2: i. Fig. 67 shows that Yeavering's $A_{5}$, A6 and A7 share that characteristic.

The examples given will have served to show that, over a wide range of the Highland Zone in Britain, the rectangular building became an element of native culture at such a time that the phenomenon is only convincingly to be explained as a marginal effect of Roman or Romano-British influence. That the instances cited here are buildings whose foundations were of stone in no way detracts from their relevance to the question posed by Buildings $\mathrm{A}_{5}$ and D6 at Yeavering. House-foundations of stone, like the enduringly conspicuous ramparts of stone and earth within which they are usually observed, are immensely more easily discoverable than those of wood. Although recent purposeful search has given new knowledge of the pre-Roman types of circular wooden house, it is noticeable that discoveries are fewest in the very areas that are most likely to have stimulated and sustained a tradition of building purely in wood. Most lie on or near the natural zone for drystone construction, in which stone-built settlements later occur. It would seem that much that is crucial in the archaeology of the most fertile and potentially formative areas in North Britain eludes us throughout the pre-Roman, Roman and post-Roman phases of the Iron Age. Were the negative aspect of the archaeological record of settlement-sites to be accepted at its present face value, it would be necessary to conclude that many areas of North Britain were subject to severe depopulation from the second century onward and that they were deserted after the fifth century; but other forms of evidence show that things were otherwise. Were the 'missing' settlements predominantly on upland sites and built in stone and earthwork, some at least would by now have come to notice; and consequently it may be inferred that they were concentrated mainly in the rewarding farmlands of the lowlands and were built of lowland materials. It looks very much in this case as though the degree of archaeological failure increases in proportion to the importance of lowland exploitation. The whole history of Yeavering, from fields to township, is meaningless save in terms of steadily developing lowland interests; and the true context of its Buildings $\mathrm{A}_{5}$ and D 6 must lie in the fertile valleys and plains of the region, which have hitherto so stubbornly resisted investigation. Whatever the history of building may be in the uplands, long persistence of the early tradition of timber houses is to be looked for in the lowlands, and it is there that Roman influences absorbed at an early stage are most likely to have remained effective.

Altogether, there is every reason to trust the testimonies of Buildings $\mathrm{A}_{5}$ and D 6 themselves. Constructional method and material, plan and proportion, and the native pottery associated with them, all combine to suggest that these buildings are at home in the native background of their region during or after the Roman period. But how are they more precisely to be dated? Here again the field-system provides the earlier terminus; for A7, A6 and $\mathrm{A}_{5}$ all straddle the gully between two fields, and $\mathrm{A}_{5}$ actually cuts through it. So once more all that can safely be said is that a date after AD $25^{\circ}$ is most likely for the whole series; and as will be seen in Chapter 6 there is reasonable certainty that the site of $\mathrm{A}_{5}$ had been partly overbuilt by A2 at the very latest within a decade one way or the other of 600 . The rough assessment of the period in which the 'fort' began (AD $375 \pm$ ? 125 years) was arrived at by reference to what seem to be respectively the earliest and latest dates possible. Whereas in that case, however, there was positive evidence for structural continuity into the period when

Building $\mathrm{A}_{4}$ was standing, there is here no such assurance that $\mathrm{A}_{2}$ directly followed $\mathrm{A}_{5}$; so the possibility that there was an interval between the abandonment of $\mathrm{A}_{5}$ and the building of A2 has also to be recognized. Accordingly there must be two distinct experimental assessments: the first based on the assumption that the sequence $\mathrm{A}_{7}-\mathrm{A}_{6}-\mathrm{A}_{5}-\mathrm{A}_{2}$ represents a direct succession throughout, so that the end of $\mathrm{A}_{5}$ is anchored to a date near 600 ; the second taking account of the possibility that $\mathrm{A}_{5}$ was pulled down long before $\mathrm{A}_{2}$ was put up.

On the former premiss, assessment of A5's date of origin would be governed by the estimated length of its life-span. The nature of the structure is such as to discourage thought of extreme longevity. Twenty-five to fifty years might be an over-generous estimate of its potential durability, and, taking into account the possibility that its life might actually have been cut short by the building of $\mathrm{A}_{2}$, the lesser figure is to be preferred. Thus, working backwards from 600 decade by decade, there would be a high probability that $\mathrm{A}_{5}$ existed during the 590 's and 580 's, and then the curve of likelihood would drop away sharply in the 570 's and 560 's. Unless the correspondences in trench-form and pottery between $\mathrm{A}_{5}$ and the nominally second phase of the 'fort' are to be ignored, the building of $\mathrm{A}_{5}$ circa 575 would require the two remaining, later phase of the enclosure's structural history to be crammed into the period $575-630$. To seek a remedy by increasing the estimate of A5's lifetime is merely to exchange one improbability for another. In short, the direct-succession hypothesis imposes an unacceptably compressed chronology on the site's structural history. Were it to be adopted, $\mathrm{A}_{5}$ and $\mathrm{D}_{\text {I }}$ could hardly be significantly separated in time, despite all their contrasts in plan, material and associated finds; for the remarkable development in plan and constructional technique that divides Dr and A 2 would also have to be fitted into the period of A5's life-span. Altogether, the assumption that A2 immediately succeeded $\mathrm{A}_{5}$ puts the evidence under such extreme pressure that relief must be sought in the alternative hypothesis.

That alternative allows the sequence $\mathrm{A}_{7}-\mathrm{A}_{6}-\mathrm{A}_{5}$ to float somewhere between 250 and 600. If $A_{5}$ is granted a life of 25 years, and $A_{6}$ and $A_{7}-$ say - $1_{5}-20$ years apiece, the total span involved is of the order of three-quarters of a century. If the synchronism between $\mathrm{A}_{5}$ and the second known phase of the palisade-work is accepted, $\mathrm{A}_{5}$ must be placed early in the second half of the enclosure's long lifetime. Taking the latest possible date for the beginning of the enclosure, on our previous crude reckoning, the halfway point in its time-span will be about 550 ; what seems to be the earliest possible date for the same event will in the same way locate $\mathrm{A}_{5}$ a little after 440 ; and a central date within those two extremes will give a halfway point about 500 . On that highly unsatisfactory basis, then, where the direct-succession hypothesis would place A5 about $55^{\circ}-575$, the alternative would set it in the period $45^{\circ}-55^{\circ}$. In either case, the first rectangular building on the site ( $\mathrm{A}_{7}$ ) will have appeared two or three decades earlier.

There is no need to point out the appalling shortcomings of that arbitrary, arithmetical approach to the problem of dating. It must be regarded merely as a convenient experimental form that allows the possible implications of known structural relationships to be considered on the basis of an assumed absolute chronology. The bare archaeological facts are probably not misleading. Both positively and negatively they indicate that this first group of rectangular buildings at Yeavering was post-Roman but non-Germanic and pre-Germanic. However vague its dating, the period involved is clearly one in which the rectangular form and proportions had already become part of native culture, and with them (as will later be
seen) the foundation-trench. A date within the fifth century, or one extending into the early part of the sixth, would fit all the known circumstances very well; but the possibility of a slightly earlier origin is not absolutely precluded.

It must be noted in conclusion how unlikely it is that these small and unpretentious buildings represent the high peak of local British achievement in the pre-Saxon era. The palisaded enclosure beside them shows a capacity for larger and more ambitious undertakings, and familiarity with the problems inherently involved in the building of more massively solid structures.

## (D) The Trench-Built Halls of Phases if, ili ab and ifi C (reference to the plans, etc., is made at the relevant points in the text)

What may be called the 'Yeavering-style' hall is most clearly represented in its maturity by Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ (Figs $\mathrm{I}_{5}$ and $60 ; \mathrm{r}_{7}$ and 6 I , respectively). There it is seen to consist essentially of a characteristic combination of elements as follows:
(1) Three-aisled, double-square plan, divided by opposed doors in the long walls (with additional, opposed doors in the end-walls).
(2) Heavy, continuous, load-bearing walls, of squared, vertical timbers in some way jointed together (Figs. 8 and 9; Plates 21, 26 and 31); set in deep foundation-trenches (Figs. 18 and 19; Plates 2I and 41) ; with inclined external buttress-posts (Fig. 20; Plates 34 and 35).

Evidences of Anglo-Saxon intrusion are associated with the buildings of Phases II-IIIC, and accordingly there is need to consider the possibility that the earliest form of Yeaveringstyle was either a post-Roman introduction from the Continent, or that Continental influence in some way contributed to its development.

At the outset the former of those alternatives can be eliminated with confidence. The Yeavering-style hall, as defined, is unknown abroad. That conclusion is unanimously supported by the specialist scholars of East and West Germany, Holland, Belgium, Denmark, Norway and Sweden. After examination and personal discussion of the plans, sections and photographs of these buildings all have declared the absence of this building-style from their own countries. Thus it seems that the steady development from Phase II onward implied in the formulation of the style-phases (Figs. 7 I and 72), was both a real and an insular phenomenon. It is of course impossible as yet to determine whether the centre of this development was actually in the immediate locality of Yeavering, or whether Yeavering merely reflects an upsurge of cultural vitality affecting a wider area of North Britain; but it seems most likely that Yeavering-style was originally a Bernician - or at all events a north-British phenomenon.

This is not, however, an end to the inquiry, but the merest beginning; for although the end-product was of highly individual character and purely insular distribution, some of the elements that went to its making could nevertheless have been of ultimately Continental origin.

In order to explore that possibility, the earliest form in which this type of building appears at Yeavering must be taken as the basis of inquiry. This sets the presence of ridge-posts (Figs. 42 and 43) among the other characteristics that are to be sought, eliminates or at least reduces the importance of the end-wall doors, and altogether removes the need to seek the ultimately sophisticated, possibly jointed, form of wall-construction. The last two features are evidently characteristic of the form's mature local development, as is the extreme resort to depth in the foundation-trenches. The use of foundation-trenches to carry solid walls of large, squared, vertical timbers remains, however, the essential crux of the matter; and the buttressing of the walls by means of inclined outer posts is another feature that calls for special attention.

Leaving aside its earlier history, the three-aisled 'hall' or house is a conspicuous feature of the Roman and Germanic Iron Ages, and of course later periods, over a large area of northern Europe. It is particularly well known in Scandinavia, Germany and the Low Countries. At base there is a family resemblance between all its manifestations, but regional characteristics appear in the minor variations of plan and construction induced by local geographical, economic and social conditions.

In northern Scandinavia, its occurrence is usually associated with a special buildingstyle which is known to extend over a large area of Continental Sweden, Gotland, Öland and parts of Norway. ${ }^{165}$ The typical feature of the buildings of this province is the use of drystone wall-foundations. While that somewhat removes them from the sphere of the present discussion, it is none the less worthy of remark that the principle underlying the construction of the Yeavering building is not altogether dissimilar. In both cases the walls are structures capable of carrying a load; ${ }^{166}$ but external buttress-posts do not feature significantly in the north-Scandinavian province. Buildings of great length relative to their width are common in this region, ${ }^{167}$ but examples of or approaching $2: 1$ and even $1 \cdot 5: I^{168}$ are not rare. Suspicion that the hazards of preservation and discovery have concealed a complementary aspect of early north-Scandinavian building, centred on the most fertile, low-lying areas and involving more specialized use of timber, is increased by recent discoveries in Norway and Sweden ${ }^{169}$ of structures with wooden linings. Nevertheless it is clear that search must be made elsewhere for the prototypical features of Yeavering-style building.

Klindt-Jensen notes ${ }^{170}$ that on Bornholm only houses with walls of wattle-and-daub have been found. House II at Sorte Muld was based in a gully (so shallow as hardly to be called a trench) but its excavator and the present writer are fully agreed that in no respect - least of all in plan - can this building have any bearing on the matter now in question. On the Cimbric peninsula, the typical constructional form is represented by houses with walls of earth, stone and turf, with internal facings of timber and wattle set in post-holes or shallow slots. Those in Jutland are of the most interest in the present connexion; for although there is no evidence whatever to suggest that the walls of the Yeavering buildings were reinforced with turf, there are nevertheless some features in common between the Jutlandic houses and the Yeavering halls. Among the Iron-age houses excavated by Hatt ${ }^{171}$ at Nørre Fjand, in west Jutland, a few of the earlier, pre-Roman, examples are remarkable for their substantial wall-posts; which were, in the excavator's own words, 'split out of oak trunks' and 'placed in rather deep and quite distinct post-holes, sometimes so close together that a wall-ditch was formed'. ${ }^{172}$ House Ib (Fig. 96 (b)) best illustrates this construction. The wall-posts, though
close together, did not actually touch; and it is assumed that the 'thin boughs' of birch, alder and oak found with the associated remains were originally interlaced between the vertical timbers. House Ib was slightly under 2: i in plan, ${ }^{173}$ with six roof-posts in two rows, and a door near the middle of the southern long wall. It appears that this house had no earth wall,${ }^{174}$ but the absence of buttress-posts discourages any thought that this form might be ancestral to Yeavering-style, and the excavator observes ${ }^{175}$ that in all the later houses the wall-posts were less conspicuous. He concludes that in general the timber elements of the walls needed the reinforcement provided by earthwork.


Fig. 96. (a) Houses at Skørbaek Hede (after Hatt).

Among similar houses in which turf and earth are associated with timber in the formation of the walls are those at Sk $\phi$ rbaek, ${ }^{176}$ Ejdrup Sogn. Of several buildings on this site dated to the beginning of the Roman Iron Age, House F (Fig. 96 (a)) most nearly approaches the double-square plan and at the same time shows the use of fairly large and closely set walltimbers. The rows of roof-posts are set very widely apart in most of the buildings on this site, and ridge-posts are often present.


Fig. 96. (b) House Ib at Nørre Fjand (after Hatt).

Those Jutlandic houses are remote in time from Yeavering-style, but they may be thought to take their place in the wider background against which it has to be viewed. They contrast with the early Iron-age houses at Lundsgaard, Funen, ${ }^{177}$ in two of which a row of median posts occurred. There the three-aisled plan was altogether absent; but it is strikingly in evidence in four buildings more recently discovered (by air-reconnaissance) at Hodde (Ribe), Denmark. ${ }^{178}$ Of the three that are rectangular, one is extremely long and narrow (approaching a 6: i proportion), and shows a rough alignment of the eastern jambs of its opposed long-wall doors with a pair of roof-posts; and another is approximately of doublesquare plan. The long walls of the fourth building are curved, and it is the earliest example of the so-called 'boat-shaped' form at present known in the protohistoric period. The site has been tested by cautious, superficial stripping of three small areas, and the resulting evidence shows it to have been occupied at, or just before, the beginning of the Roman Iron Age. Although the walls of all these buildings were based in continuous slots, those were only 6 to 8 inches wide and can have carried nothing more substantial than wattle screens. Accordingly it has been suggested ${ }^{179}$ that rafters of the rectangular buildings were lodged in outer slots which otherwise would be thought to have carried closely surrounding fences. Whether or not that interpretation is ultimately upheld by the results of the site's full
excavation, it is clear that the buildings at Hodde and Yeavering are to some extent structurally antithetical. Hodde certainly does not give any evidence of that situation - so clearly shown at Yeavering - in which the forces acting on the wall-plate are accepted as the crux of the structural problem and are countered by the use of distinct, external buttress-posts bearing on the wall itself. Five hundred years separate Hodde from Yeavering, and (although it is not beyond the bounds of possibility that the types of building so far seen in Denmark later developed into more relevant forms) if a later and equally or more satisfying model is anywhere to be found its claim obviously will be the stronger.

At Tofting ${ }^{180}$ at the mouth of the Eider in Schleswig-Holstein, the three-aisled plan is well displayed by surviving timberwork in a settlement of the second to fifth centuries ad. Widely spaced upright posts were set just outside the wattle screen-walls, but the roof-posts were obviously the main weight-carrying elements (Fig. 96 (c)). Southward from Tofting in the marshlands of the Elbe and its tributary the Stör, a similar plan has been revealed at Hodorf ${ }^{181}$ in buildings of the first and second centuries ad. Both at Tofting and Hodorf the byre-house form is more emphatically in evidence than it is in Denmark, although - since so very little is known of the settlements of the Cimbric peninsula after the second century AD - it is more than possible that new discoveries will show the byre-house to have been of greater importance there than appears at present. At this moment it seems that, as we move from north-east to south-west, we pass from two provinces typified by relatively unspecialized houses (often with slightly curved or 'bent' long walls) to another in which a more strictly rectilineal plan dominates the scene, and in which sub-divisions for cattle occur more frequently.


Fig. 96. (c) Byre-House at Tofting (after Bantelmann).

However that may be, this survey brings us next to a large settlement-site in which the buildings are characteristically designed to house farmers and their beasts (Fig. 96 (d)). It lies at Feddersen Wierde, ${ }^{182}$ east of the Weser estuary, where extensive excavations have revealed a consecutive series of occupation-levels and structural remains spanning the period from just before the beginning of the Christian era to the fifth century AD, with scattered later remains. Whereas the known Jutlandic houses are suggestive of a socio-economic situation in which increase of population would produce a budding-off - a multiplication of households - and hint that ownership of cattle was the distinctive prerogative of the few, there is here every sign that the waxing or waning size of each social unit and its wealth is reflected in the dimensions of individual buildings. The house, that is to say, may have been tailored to fit social groups with a tendency to remain altogether identified with and subservient to a


Fig. 96. (d) Byre-house at Feddersen Wierde (after Haamagel)
single head. That would explain the presence of some extremely long and narrow buildings at Feddersen Wierde, which are reminiscent of those in the north-Scandinavian province; and in phases that show a return to shorter buildings, we may perhaps suspect that some event (as, for example, migration of younger sons) had reduced the remarkably large average size of the households. Certainly we may view Feddersen Wierde with special interest; not only because it is that scandalously rare thing, a settlement-site excavated as completely and as well as modern resources allow, but especially because it is representative of a region (and in its later stages of a time) which cannot be without significance in the archaeology, and therefore the history, of late-Roman and post-Roman Britain. The formalization in the plans of its buildings suggests an approach to the methodical, systematic layout of the Yeavering halls, and the way in which part of the interior is divided into stalls related to the pattern of roof- and wall-posts particularly invites the idea of an emergent bay-system; and yet there is
still no indication of the structural, engineering principle that was the fundamental basis of Yeavering-style. True, there are moderately stout wall-posts against the outsides of the screen-walls of wattling, as there were at Tofting and Hodorf; but they are still vertical posts, serving mainly to allow weatherproof panels to be held in place, and there is little or no suggestion that they - rather than the roof-posts - existed to counter the weight and outward thrust of the roof.

It is only when we cross to the west of the Weser, indeed, that we find more convincing possibility of a Continental connexion with Yeavering-style. There houses of the first century BC/first century AD at Einswarden ${ }^{183}$ are of three-aisled, double-square plan, with external posts that show inward inclination (Fig. 97 (a and b)). Nevertheless, the relative depths of the uprights of the wattle walls and of the external posts (Fig. 97 (c)) show that, though the geometry of the plan is essentially similar to that of the Yeavering-style hall, the walls themselves cannot conceivably have played any more important a structural part in the whole than those of Tofting and Hodorf.

The later history of the same form is most clearly shown further westward from the socalled Old Saxon area, in the terpen of Frisia. One site will serve to represent the rest, since it is virtually an index to the general culture of its region from the last centuries $B C$ to the advent of Anglo-Saxon settlers in the early part of the fifth century ad. This is the terp at Ezinge, ${ }^{184}$ near Groningen. The levels here have been set by the excavator into groups, numbered from the bottom layers upwards. Thus (VI) represents the earliest phase of settlement, beginning about the fourth century $\mathrm{BC} ;(\mathrm{V})$, the succeeding phase, starting about 200 BC ; (IV), a phase beginning about $100-50 \mathrm{BC}$; (III), a phase set roughly into the first/second centuries AD; (II), a phase from about AD 200 onward; and (I), a phase marked by the impact of Anglo-Saxon expansion from the east into Frisia, about AD $400-45^{\circ}$.

What is most striking in this long succession is the persistence throughout of the same basic type of three-aisled building (at least up to the invasion of Grubenhäuser, Fig. 98), despite the variant shown here as Fig. 99(D): (i) posts of triangular section, (ii) outward shift of roofposts, (iii) additional posts between walls and roofposts. In the first/second centuries $A D$, Hodorf (p. 217) shows (i) and (ii), and the main hall at Fochteloe (p. 225) shows (ii) and (iii). That variation is open to a cruck-like construction, perhaps, to which Tofting and Feddersen Wierde (pp. 217-18) do not respond in their later and more relevant times. Ancient divergences in Frisia may well be crucial, but let us return to Ezinge (Fig. 99), which shows that the early forms in (G) and (C), particularly, are in plan reminiscent of the Yeavering-style hall; especially in that the lateral alignment of a pair of roof-posts in both cases coincides with one side of the long-wall door ( $c f$. Line X in Figs 60 and 61). These examples represent a relatively unspecialized house-plan, in contrast to the buildings with byre-divisions in (A), (B) and (E).

Nevertheless, the general resemblance between (A)-(G) and the Einswarden plan in Fig. 97 is unmistakable, and is made further evident by comparison of Fig. 97 with Fig. 100 which demonstrates what is altogether the most convincing interpretation of the function of the external posts at Einswarden and of those in the buildings of Ezinge (VI) respectively. ${ }^{185}$ The accompanying embankment at Ezinge is so slight as hardly to constitute an overridingly significant difference in terms of engineering, but is nevertheless worthy of remark.

It is this basic plan, current during the Roman Iron Age over so wide an area west of the


Fig. 97. (a) reconstruction, (b) Plan, (c) end-elevation of Einswarden house (after Zippelius).


Fig. 98. Diagrams of structural developments at Ezinge before (upper) and after (lower) intrusion of Grubenhaüser in the fifth century AD (after van Giffen).


Fig. 99. Plans of Ezinge houses of Phases VI to III (after van Giffen).

Weser, that appears in some respects most precisely to foreshadow that of the Yeaveringstyle hall. It has been seen already in Ezinge (VI) and (V) (Fig. 99 (G and C)), to supply the three-aisled plan of roughly 2 : I proportion, with lateral alignment of a pair of roof-posts at one side of a single long-wall door. In Ezinge (V) (Fig. 99 (B)), the latter feature occurs in association with opposed doors in the long walls, and the wattle walls themselves are set in more pronounced slots. This combination of relevant features is most evident in the relatively unspecialized houses, which are more strictly comparable to the non-agricultural buildings of Yeavering; but the presence of external posts in buildings of both main categories seems to constitute a critical link with Yeavering-style. At the same time, the occurrences of earth and turf elements in the wall-construction, reinforcing or even eliminating the external posts (e.g., Fig. Ioo (d and c)), indicate that the alternative constructional technique, the occurrence of which in Jutland has been noted, was not unknown in Ezinge's Phase III.


Fig. ıoo. Reconstructions of Ezinge houses (after Zippelius). Scale in metres.


Fig. ioI. Hall and 'hamlet' of minor buildings at Fochteloo (after van Gifen).

The double-square plan appears again even more clearly in the sandy lands to the south of Ezinge: at Fochteloo, ${ }^{186}$ Gem. Oostellingwerf, Friesland. A settlement there, dated to the first or the first and second centuries AD, was of different character from the terpen farmsteads and, evidently of superior social status, may the more fittingly be compared with Yeavering. As Professor van Giffen, its excavator, remarks, ${ }^{187}$ it appears to constitute a complex in which a chieftain's house stands apart from an enclosed 'hamlet' of four lesser buildings (Fig. ior). The double-square plan seen at Yeavering is most closely paralleled in the minor building III (and possibly in its fellows, IV and V), where the west sides of the western jambs of opposed doors in the long wall are aligned with a pair of roof-posts. The walls are of wattlework between pairs of vertical posts. A row of three additional posts at each end of III seems most likely to represent a form of buttressing, and a similar feature occurs at the eastern ends of IV and V. In each case the middle post stands on the long axis of the building and corresponds to a wall-post set on the same line, an arrangement which may have given support to the ends of the roof-ridge.

Those observations apply in varying degrees to the main, hall-like building (illustrated at a larger scale in Fig. IO2), although it is of greater length relative to its width. Here again is that difference in regularity between the two halves of the building, noticed in Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ at Yeavering (Figs. 60 and 61): the western half of the hall is almost exactly rectangular, while the other half tapers off to the east. The resemblance goes no further, however. While the stout, vertical posts outside the wattle-and-daub walls might be thought to indicate a trend towards 'heavy-wall' construction, they are set in series of discrete postholes; and the wattlework screens themselves stand separately in shallow slots. It is not impossible that there is here, as in Ezinge III (Fig. 99, (D)), such a tendency to congregate the weight-bearing elements near the walls as could ultimately have led to a development of solid walls; but the absence of obliquely set posts outside the long walls and the extreme widening of the central aisle seem to argue a special development of constructional technique different from that which is so clearly seen at Yeavering.

The search for early buildings that could be wholly or partly prototypical of the Yeaveringstyle hall has ranged over those areas of northern Europe from which, as is shown by history and archaeology, Britain is most likely to have received influences and people in the period from the late fourth to the sixth century. Doubtless inequalities of preservation and discovery to some extent prejudice the regional balance of the available evidence; but even so the material that has been reviewed seems to allow some tentative conclusions to be reached.

What is entirely missing from the constructional repertoire in evidence on the Continental mainland is that specialized development of solid wooden walls, set in foundation-trenches, which is the leading feature of Yeavering-style. The case for any Continental connexion must therefore rest at present almost entirely on consideration of the basic plan alone. If that is accepted as a valid method of approach to the problem, then (as our knowledge stands at present) there can be no hesitation in pointing to the coastal lands between the Weser and the Zuider Zee as far and away the most likely Continental area of influence. Only there can


Fig. 102. Fochteloo hall, at larger scale (after van Giffen).
the double-square plan be found with the characteristic single tie from door-posts to roofposts, and at that in association with oblique external posts that prop up the wall-plates. Ezinge and Einswarden, then, seem to be representative of the focal area of probability; but the resemblance between the plans of their buildings and those of the earliest halls at Yeavering is not complete, even so, for there is no sign of the supporting posts for the ridge that occur in all three of the Phase II halls at Yeavering.

Continental scholars, outstandingly the excavators of the sites in question, agree that whereas the external posts at Ezinge and Einswarden were inwardly inclined, those at Feddersen Wierde and Tofting were set vertically. Obliqueness in the setting of the external posts must be an indication of greater awareness of the outward thrust of the roof on the wall-plate, and the fact that this feature is clearly in evidence only in the coastlands between the Weser and the Zuider Zee seems to suggest the existence of a distinctive building tradition there in the early centuries ad. It would be absurd to suggest that the buildings in that area were of an utterly different family. The evidence may be expressive simply of a tendency in Frisia to reduce the pitch of the roof and to set the posts that supported the wall-plate at such an angle as would counter the correspondingly increased lateral thrust of the roof-structure. Thus it would not be unreasonable to say that the difference between the vertical and the inclined external post was indeed one merely of degree. In any case it would be wrong, at this stage of uncertainty, to try to impose a hard and fast division. Probability does seem at present to come into sharpest focus in the area containing Ezinge and Einswarden; but the surrounding fringe gives an impressive demonstration of the double-square plan (with possible indications of ridge-posts) in the socially superior buildings at Fochteloo, to the west; and to the east the formal system seen in the farmhouses of Feddersen Wierde may yet be shown to have lent itself to more sophisticated use.

Furthermore, the possibility that there was some mingling of formerly distinct building traditions, in the course of those cultural and ethnic movements which are characteristic of the period between the end of Ezinge and the beginning of Ad Gefrin, cannot be ignored. We have little or no knowledge of the local development of building technique in Jutland from the third century onward, and are in no position to assume that westward diffusion of ideas from that quarter plays no part in the issue that concerns us. There, possibly, the ridge-post endured as a structural feature, and the 'stave-construction' 188 that was exceptional in the early Jutlandic houses could conceivably have persisted or recurred and been developed.

None the less, judgement must rest for the moment on the evidence that is available, and at present it seems that the bare plan of the Yeavering-style hall can best be paralleled abroad in the Frisian coastlands. However, although there may be a structural principle in common, in the use of inclined outer posts to buttress the wall-plate against the forces of the roof, there is also a formidable contrast in constructional development that may be equally or more significant. The specialized exploitation of the solid, weight-bearing, trench-built wall which is the essential feature even of the very earliest Yeavering-style halls is nowhere to be seen on the Continental mainland at a relevant time, nor is there any clear sign that it was incipient. The conclusion that that peculiar characteristic of Yeavering-style is the mark of insular development in Britain seems inescapable. The remains of massive, trench-built walls are, after all, infinitely more discoverable than those of the slighter structures that have been reviewed above. That is presumably why the first putatively 'Anglo-Saxon' halls to come to
knowledge in Britain were those at Yeavering; and, if there really were exactly comparable structures abroad, their persistent absence from the archaeological record of the Continental mainland would be inexplicable in view of the wealth of sites brought to notice there by smaller, subtler indications.

It is by no means inconceivable that in its structural layout the Yeavering-style hall reflects a plan known to have been current in Frisia up to the fifth century ad. Carried to Britain by early Germanic immigrants, late in the fourth or during the fifth century, the basic plan could well have been sustained throughout the century and more that separates the last known farmhouses of Ezinge from Building $D_{I}$ at Yeavering . . . and would meanwhile have been so much the more vulnerable to local British influences from the very length of its exposure to them. Nevertheless, it would be very odd to find that the assumed prototype had had no effect on later building in and around its homeland, and so it would be wrong to ignore the possibility of there having been some further, and perhaps more relevant, Continental development from the same Frisian model.

That the 'Frisian plan' did not die altogether without issue on the Continent, after its last archaeological appearance at Ezinge, is perhaps to be inferred from some of the buildings at Warendorf, near Münster in Westphalia, so well excavated by Winkelmann. ${ }^{189}$ The earliest among them are unlikely to have been built earlier than the middle of the seventh century, and so may be roughly contemporary with the abandonment of Yeavering; and most belong to the eighth century. The site has yielded a remarkable diversity of structures, of which representative examples are illustrated in Fig. 103, and particular interest attaches to Winkelmann's proposed equation of certain types with the forms referred to in ancient Germanic codes of law. ${ }^{190}$ Warendorf was essentially an agricultural settlement, and it is unlikely that any of its buildings relate to the highest strata of society; but nevertheless its largest buildings are of such length and solidity as to give some basis for comparison with those of Yeavering.

Notable similarities include the opposition of doors set in the middles of the long walls, and the use of heavy wall-posts (roughly square in section). External posts are here generally conspicuous, and it has been demonstrated beyond all possible doubt that they were inclined inwards to the walls (Fig. 104). ${ }^{191}$ The presence of ancillary buildings with sunken floors (Fig. 103 (V)) recalls the occurrence of this type at Yeavering.

In some respects, then, there is evident kinship between the major buildings at Warendorf and Yeavering; but there are no less significant differences. The Warendorf 'hallhouses' are not of three-aisled plan, and roof-posts do not play any important part on this site. ${ }^{192}$ While the largest of these buildings (Fig. 103 (I)) are comparable in length with A2 (Fig. 60), they are of far narrower span. A length/width ratio of 4 : I is most common among them, and the contrast with the double-square plan typical of Yeavering is obvious. Moreover it is characteristic of the Warendorf buildings that all their wall-posts are set in separate post-holes. The nearest approach to a foundation-trench at Warendorf is a puny slot for the wattle walls of one of the earliest buildings on the site. This is illustrated in Fig. 103 (VIII), where it can be seen that the narrow, shallow feature in question was sufficient


Fig. 103. Types of building found at Warendorf (after Winkelmann).
merely to allow wattle screens to be set lightly into the ground. In this particular constructional respect, the earliest structures here differ little from those at Tofting and Ezinge; but, like all the buildings at Warendorf, they are not of three-aisled plan. The precise date of these earliest buildings at Warendorf is in doubt. The excavator, in recent discussion with the writer, favoured a dating about the middle of the seventh century; and the evidence does not seem to allow of any significantly earlier attribution.


Fig. 104. Structural framework of rectangular building at Warendorf (after Winkelmann).

The possibility of relationship between Warendorf and Yeavering must now be examined more closely. The absence of the three-aisled plan is not so disconcerting as it may at first appear; for the process by which roof-posts have been eliminated at Warendorf is essentially the transference of their function to the massive wall-posts. This has been achieved only by acceptance of a narrow span and increased emphasis on the external posts as thrustresisting elements. It is precisely the same transference that took place at Yeavering; but there the need to sacrifice span was avoided by retention of the roof-posts as linking-points for lateral ties, which allowed the double-square plan to be maintained or developed as a characteristic form.

In the mature style of Warendorf there is no explicit provision for support of a roofridge, ${ }^{193}$ but the possibility that this feature was present at an earlier stage of evolution is suggested by the posts set at the middle of the end-walls in a number of buildings (e.g., in all
the house-like buildings in Fig. ro3, except Nos. 7, 8 and i6). The absence of end-wall doors, as in the earliest true Yeavering-style (Phase II), might well be a further point of relationship; and equally, although it appears that doors were not actually present in the end-walls even of the later buildings at Warendorf, it may be significant that the fully developed house-type became such as would have allowed of their introduction (e.g., Fig. io3, No.).

Altogether, the series of correspondences between the structures at Warendorf and Yeavering is sufficient to justify the idea of a connexion between them. If it is granted that the combined function of the walls and buttress-posts was such as to allow the presence or absence of roof-posts to be decided wholly by consideration of the span required, one thing only divides them; and that is the development of the foundation-trench in the Yeaveringstyle hall. Otherwise, the evidence seems most consistent with the hypothesis that the groundplans typical of Yeavering and Warendorf were variant developments from a common ancestor; and, since the evidence at Warendorf indicates that this settlement was almost certainly a product of Saxon penetration inland from the coast, ${ }^{194}$ the prototype hypothetically in common is placed in that general area affected by earlier westward expansion from the Cimbric peninsula which is indicated by the interpretation of the evidence offered above.

Derivation of the plan of the earliest Yeavering-style halls from the coastal region between Jutland and the Rhine is of course wholly consistent with the presence of a Grubenhaus, D3, in Phase II at Yeavering. The point of special interest that has emerged from this discussion is that the prototype seems at the moment far more likely to be located in the west than in the east of the area in question. The type of building seen at Ezinge might itself be the prototype or have provided the basis for its development. If Dr and $\mathrm{D}_{2}$ alone had stood in Phase II at Yeavering, the simple hypothesis that their Continental ancestor was purely Frisian could be maintained; but the adaptation of the same form to make, in the roughly contemporary $\mathrm{D}_{3}$, an unorthodox but none the less authentic Grubenhaus, compels the supposition that something more than Frisian influence is involved. If the long succession of 'native' Frisian buildings at Ezinge gives us the best general parallel to the plan of the early Yeavering-style hall, it also registers the impact of Anglo-Saxon intrusion in the fifth century. Grubenhäuser, after all, are the chief surviving feature of Ezinge's last recoverable phase, but they were certainly not known there previously. ${ }^{195}$

Thus there is at Yeavering one type of building which appears to stem from the ancient tradition of the region between Einswarden and Fochteloo, and another which is in some degree representative of a form that marks fifth-century Anglo-Saxon penetration into that same Continental region. It may therefore be concluded tentatively that such Germanic indices as there are at Yeavering betoken a mixed culture combining Frisian and (in the broadest sense) Anglo-Saxon elements. Choice has to be made between alternative hypotheses. If that cultural fusion began on the Continent, the plan of the earliest Yeavering-style halls is presumably the result of a fifth-century migration to Britain from Frisia or an immediately adjacent area. On the other hand, there is the possibility of a separate Frisian
migration at an earlier date, followed by the adoption of the Grubenhaus as a result of subsequently close contact with Anglo-Saxon immigrants in Britain. The former hypothesis is to be preferred on grounds of economy, and it is certainly more consistent with the theory that the early halls at Yeavering and the relatively later farmhouses at Warendorf are variant developments from a common fifth-century original. Grubenhäuser are present in both cases, and that is surely to be regarded as another link between the two sites. There seems to be no need to offer a special explanation for their presence at Yeavering, when their occurrence at Warendorf is so obviously a result of cultural interdigitation on the Continent. Accordingly the Grubenhaus takes its place naturally beside the hypothetical prototype that is held to account for the shared characteristics of the most impressive buildings at Yeavering and Warendorf. At Ezinge, it is seen to have been entrenched in Frisian soil by the middle of the fifth century, and Warendorf - roughly 150 miles south of Ezinge and about in miles from the shore of the Zuider Zee - lies well within the possible range of effects from a SaxoFrisian acculturation of two centuries' standing. All in all, there is full context for both the similarities and the differences between Yeavering and Warendorf.

If there is need of a name for the mixed culture which is hypothecated to explain the Germanic elements at Yeavering, 'Saxo-Frisian' may possibly serve. 'Anglo-Frisian' is a term of uncertain meaning that has been attached to pottery found in the same Continental regions and in Britain, and must be avoided if only to escape the begging of two questions at the one time. 'Anglo-Saxo-Frisian' would have the merit of inclusiveness, but life is short. 'Saxo-Frisian', on the whole, may stand as a term of reference better in line with Continental usage; but of course it is not intended as a denial of any Anglian part in the complex relationships which are apparent in eastern Britain and the Continent in the fifth and sixth centuries.

So far discussion has centred on the origin of the plan on which the early halls at Yeavering were laid out. There can be little doubt that it was wholly or partly drawn from a Continental prototype; but, equally clearly, the way in which it was executed at Yeavering finds no parallel in contemporary or earlier Continental practice. Specialized use of the foundationtrench and the evolution in it of an ingenious form of solid-wall construction are the particular features that give need for the distinctive term 'Yeavering-style'. They are surely the hallmark of insular development in Britain. It is exceedingly difficult to believe that the shallow, narrow slots that occur in some of those Continental buildings noticed above (e.g., at Warendorf, Fig. 103 (VIII); and at Fochteloo, Fig. IO2) were actually the progenitors of Yeaveringstyle. They served merely to keep the insubstantial wattle screens of those buildings weathertight, and were not truly structural features. Since it appears that they did not lead to the idea of trench-construction abroad, some special stimulus is required to explain such unique development in Britain.

That being so, it seems particularly significant that Yeavering-style should occur in a part of Britain where an earlier native tradition of palisade-construction in bedding-trenches is clearly in evidence, and one in which the example given by Roman building practice is more likely to have stimulated and reinforced ideas that already existed than to have caused an abrupt revolution. There, the Roman occupation certainly must have brought the advantages of the rectangular form of building to native attention, and early Roman timber
buildings in trenches might well have been influential. The Yeavering 'fort' in itself demonstrates the persistence into post-Roman times of pre-Roman, native technique in palisadeconstruction; and the first squat little buildings outside it seem to be wholly native work of a time before the bearers of the 'Saxo-Frisian' plan made use of the site. Clearly the native, Bernician context can supply ali that seems to be lacking in the Continental prototype. The Yeavering-style hall must surely have been produced by native craftsmen working from the outline of the plan supplied by their Germanic overlords.

That the evolution of Yeavering-style is likely to have been in some significant sense a local one appears from the fact that its development and improvement can be traced, stage by stage, in successive buildings at Yeavering: the first, clumsy use of palisade-type walls in $\mathrm{D}_{\mathrm{I}}$ and $\mathrm{D}_{2}$, the advance to a more refined technique in $\mathrm{A}_{2}$, and the masterly exploitation of the form in A4. All this looks very much like the record of an established school of building craftsmen constantly concerned with the problems of hall-building in the region. Di might well represent an experimental stage in the application of palisade-technique to a new form; whereas $\mathrm{A}_{4}$, for all its bold innovation, gives evidence of systematic preparation and codified procedures, and must have been the product of accumulated experience. On the whole it is likely that the development observed at Yeavering was a direct reflexion of a process that had its formative centre in Bernicia's Coastal Zone, presumably at Bamburgh.

None the less the possibility that Yeavering-style could be of Northumbrian rather than purely Bernician significance must be considered. The beginnings of Anglo-Saxon power in Deira and in Bernicia cannot be totally unconnected, and - for what it is worth - the one Anglo-Saxon pot found at Yeavering finds its nearest parallel at Sancton in Humberside. Almost certainly the first Anglo-Saxons in the Deiran region were foederati introduced late in the fourth century or early in the fifth. Very early cremations almost at the gates of the Roman legionary fortress at York hardly admit of any other explanation; and it must be concluded that there the Germanic immigrants were directly exposed to late RomanoBritish influences of various kinds. Thus the possibility that the first Anglo-Saxons in Bernicia carried with them a culture previously modified in Deira cannot be ignored.

Nor, in the search for an insular source that could have supplied those elements that are unknown abroad, can it be overlooked that Roman Britain itself could conceivably have offered a receptive, even a formative, context for development of the plan of the Yeaveringstyle hall. It was not without buildings of analogous plan. Its so-called barn-dwellings and 'basilican villas' offer comparable forms (Fig. IO5 (a) and (b)) which exploit the three-aisled plan and have, as has been remarked elsewhere, ${ }^{196}$ a characteristic tendency towards $2:$ i proportion. Early examples in timber are known, and although they are typically based in separate post-holes these are sometimes so closely set as to break into one another. These buildings are in the main of southerly distribution, and none is known to have been built after the middle of the fourth century; ${ }^{197}$ but occupation in some cases up to the end of the fourth and into the early fifth century is implied by coin-evidence. ${ }^{198}$ This form appears to have been so well rooted in the Romano-Celtic world that something akin to it may well be found to have been in use at the top level of 'free' Celtic society in the Highland Zone of Britain in the fourth, fifth and sixth centuries. Radford, ${ }^{199}$ indeed, has placed this interpretation on the series of post-holes he found at Castle Dore in Cornwall (Fig. 106). If the structures there are rectangular Celtic halls, it is interesting to observe that in that south-western


Fig. 105. (a) Comparative plans of Romano-British basilican villas and 'barn-dwellings' (after Collingwood).
province they were built in separate post-holes, whereas what is so impressive at Yeavering is the great solidity of the heavy, continuous walls made possible by trench-construction. The contrast merely underlines the contemporary absence of massive timber buildings in foundation-trenches from other parts of Britain, and allows the possible effects of romanization at Yeavering to be considered more confidently in purely local terms.


Fig. 105. (b) Romano-British barn-dwelling at Landwade (after Greenfield).

The known examples of Roman timber buildings in trenches (e.g., at Fendoch) are of relatively early date, and are typically constructed in post-and-panel technique. Thus it would seem that, although Buildings $\mathrm{A}_{5}$ and D 6 could represent the lasting effect of early Roman influence on native tradition in the north, the heavy palisade-type walls in the trenches of $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$ cannot reasonably be derived directly from surviving Roman models. Accordingly there is all the more reason to accept the explanation that they mark the extension of native Bernician palisade-technique to the construction of major hall-like buildings; but what prompted that extension and spurred on its development to such a remarkable extreme?

When a detached view is taken of Yeavering-style in its maturity, it appears to be no more and no less than an attempt to emulate the virtues of mortared structures and to induce their mechanical properties in terms of another medium. Further, lime-plaster (used, presumably to the same end, in Roman post-and-wattle buildings ${ }^{200}$ ) is associated with Buildings A2 and A4, and is surely expressive of a desire to give wooden buildings the same


Fig. ro6. Plan of post-holes at Castle Dore (after Radford).
appearance as those of stone. The Bernician natives had long been exposed to the influence of Roman works in stone along and around the Hadrianic wall. Stone buildings of $2:$ I proportion, with opposed doors in the long walls, would have been familiar to the civilian population for example of the vicus at Corbridge, ${ }^{201}$ whose fate after the fourth century remains unknown. Native aspirations might well have been shaped by such Roman models and given rise to the solid-walled type of hall. The same works on the Wall cannot have been unknown to the Germanic overlords of later times, and whether or not those rulers came to Bernicia directly or from Deira they themselves would have been impressed by the dignity of the Roman buildings that they saw along the old frontiers. ${ }^{202}$

The truth is probably that both the native and the intrusive ruling classes knew and envied the strength and solidity of Roman masonry buildings, which had long been associated with the exercise of power in the land. None, as yet, could produce new buildings in the ame medium; but, seized with the spirit of emulation, one side or both saw the means of achievement ready to hand in the native tradition of palisade-walls built in trenches. It is not unlikely that at the highest level of British society in the intramural region rectangular buildings (A5 and D6 at Yeavering may be humble examples) first came into use as the result of purely Romano-British influence; in which case there will have been a favourable context for the kind of hybridization which was later to follow. Be that as it may, the ultimate situation in Bernicia can only be judged from the major buildings that are in evidence at Yeavering; and they suggest that although earlier native constructional technique is likely to have contributed most significantly to the hybrid form, it was the acceptance of northGermanic leaders and their ideas about halls that stimulated the most ambitious developments. Yeavering-style, that is to say, probably came of a northern British mother and a
'Saxo-Frisian' father and retained some of the physical characteristics of both parents. It seems, moreover, that it was born into the new aristocracy of a world that still set some store by the memories and monuments of the Roman past.

## (E) The Trenah-Built Halls of Phases IV and V <br> (reference to the plans, etc., is made at relevant points in the text)

This discussion will be restricted to matters arising from the differences between the halls of Phases II-IIIC, on the one hand, and those of Phases IV and V on the other. Those differences are apparent from the table defining the relationship between styles and phases (Fig. 7I).

It has been pointed out in Chapter 3, IV (a), above, that Style IV, the characteristic building-form of Phase IV, seems to be a variant from the main Yeavering-style tradition as represented on this site. Its essential difference from Styles ILIAB and IIIC, which are specialized developments of the three-aisled plan (Figs. 60 and 6I), lies in its preoccupation with the support of the roof-ridge (Figs. 68 and 69). Since ridge-posts are actually present in Style II, and the mature type of wall-construction characteristic of Style IV first appears in Style IIIA, it is suggested that IV may be interpreted as a 'budding-off' from the main tradition at the point of transition between Styles II and IIIA. This interpretation removes the apparent contradictions in the relationship between IIIC and IV, in allowing each to have been evolved from the same early original. The 'annexes' of the Style IV buildings may be structurally and functionally derived from the partitioned ends of the great halls of IIIAB and IIIC (p. I40) but they are none the less indicative of distinctive development.

The replacement of Style IIIC by Style IV follows, after a brief interval (p. I64) the destruction of the Phase IIIC township by fire; so that the corresponding phases are as sharply divided by events as by the styles in question. Hence, it appears that the arrival of Style IV at Yeavering represents an influx of related but differently developed cultural ideas to the site, and there is a real possibility that what is actually involved is replacement of cultural and political leaders. That, of course, need not demand any great movement of people, numerically or geographically.

The special character of Style IV is most likely to have been formed in a neighbouring region of North Britain, but its precise location cannot at present be determined. From historical considerations (set out in Chapter 6, below) the writer suggested some time ago ${ }^{203}$ that influences transmitted through the Irish church in North Britain were probably in some way involved, and that special search for similar structures should be made on Iona. That inference has since been shown to be sound; for, in 1959, excavations on Iona revealed the presence of timber buildings in foundation-trenches. ${ }^{204}$ Their remains, as far as they have been revealed by recent investigations, are precisely similar to those of Yeavering-style IV. The foundation-trenches correspond very closely in form and dimensions; and although the traces of timberwork within those at Iona were not observed during excavation, the photographic records clearly show timber walls of the same thickness as those of Yeavering-style IV. Complete recovery of the plan of one of these buildings on Iona is still awaited, and for the moment all that can be said is that the evidence available is wholly consistent with the
connexion that is suggested. The excavator dates these remains to the seventh-eighth centuries, on the assumptions that they are earlier than an extensive fire which is inferred from a reddened soil-surface, in evidence, and that the fire represents the sacking of Iona by the Vikings at the end of the eighth century. The present writer must, however, in fairness add that he is not wholly satisfied by this interpretation; particularly because the original packing-soil of the foundation-trench most fully exposed on Iona is shown to have contained burned material from the fire that is alleged to have destroyed its timberwork. ${ }^{205}$ Further investigation is needed to place the nature and date of the Iona buildings on a more assured basis; but meanwhile it is clearly of the greatest interest and importance that characteristic features of Yeavering-style should have appeared in that region and in that particular place.

There is so little archaeological evidence to show what traditions of timber building existed in Ireland at the relevant times that the question of a specifically Hibernian contribution to Style IV can be considered only on the basis of somewhat inconclusive literary evidences. Most outstanding in the present context is Bede's reference ${ }^{206}$ to the building in 652 of Finan's church on Lindisfarne 'in the manner of the Irish' (more Scottorum), 'not of stone, but of hewn oak'. He speaks also of its roof being thatched with reeds. That in Bede's mind there was a distinction between Irish and Northumbrian timber-building traditions might appear also from the fact that in his description of the timber church built at York for Edwin's baptism, in 627 , he makes no reference to more Scottorum. ${ }^{207}$ Nevertheless, when the probable nature of Bede's sources is considered, his ability to make such a subtle differentiation might be doubted.

The eighth-century monk known as Cogitosus ${ }^{208}$ describes the major church of St Brigid at Kildare as being divided into three parts by wooden partitions (as in Buildings $\mathrm{A}_{3}$ (a) and $\mathrm{A}_{3}(\mathrm{~b})$ of Phase IV and V at Yeavering, seen in Figs. 68 and 69) ; and various Irish literary evidences refer to two types of construction in wood, of hewn timbers (dairtheach) and wattlework respectively ${ }^{209}$ - a distinction perhaps corresponding to that seen between Buildings $\mathrm{A}_{3}$ (a) and $\mathrm{C}_{4}$ (b) (Figs. 68 and 38, respectively).

The importance of the ridge-pole in the Hibernian world has been pointed out by Professor Richmond, ${ }^{210}$ who also examines the evidence of the early Irish Laws, notably the Crith Gabhlach. ${ }^{210}$ There the evidence for correlation between the dimensions of houses and personal status is clearly stated. Various problems are involved in the interpretation of these early codes, and uncritical acceptance of their precise terms would indeed be extremely rash; but even so it is interesting to observe that among the house-widths of 19, 20, 27, 29, 30 and 37 feet there given, there are close correspondences with the graduated widths of Buildings $\mathrm{Ci}_{\mathrm{I}-4}$ and $\mathrm{A}_{3}(\mathrm{a})$ at Yeavering (Figs. 38 and 68) which are particularly striking when they are expressed in terms of the 'Yeavering-unit'.

The possible connexion between the 'annexes' of Styles IV and V and the partitioned antechambers of IIIAB and IIIC has already been mentioned. That development is none the less likely to reflect influence from some external source. The resemblance between the annexes at Yeavering and the extensions at the ends of Romano-British 'barn-houses' seen in Fig. Io $_{5}$ is probably quite fortuitous; but there is a strong possibility that Continental influences transmitted through the Irish church played some part in their evolution. Response to European culture seems to be apparent in the seventh-century stone churches of Northumbria, and it may be that here there is already some indication of its earlier effects.

No positive conclusions can be reached at present; but it seems most likely that Style IV was a variant development of Yeavering-style stimulated by the influence of Irish and/or north-British traditions in another region. It is not beyond the bounds of possibility that Yeavering-style was but one of several regional variations on a common theme adopted by Celtic aristocrats of the north and west in late-Roman or early post-Roman times; and, if so, Style IV could be regarded as the mark of more sweeping cultural intrusion than is postulated here.

Style V would appear to be in some sense a devolution from Style IV, especially in that the walls here lose their solidity and full weight-bearing function. The evidence of clinchnailed planking suggests that northern ship-building traditions ${ }^{212}$ are involved in its development; but the contrast between Styles IV and V need be no more than that between two contemporary forms of building of different status. V, that is to say, may be simply the mark of Yeavering's declining importance.

## (F) The Sunken-Floored Buildings of Phases II and IV

These buildings are examples of the Grubenhaus so familiar in north-European archaeology Their presence at Yeavering is of the greatest importance, for it puts beyond all doubt the existence and the nature of the intrusive element that has been inferred from various of the small-finds and from other structures.

This class of building has recently been examined in such great detail, ${ }^{213}$ particularly with regard to its distribution and associations abroad, that prolonged discussion of the type is here unnecessary. The basic form is seen to have ranged, during the early centuries of the Christian era, from the Netherlands to Silesia;214 but for the purpose of this inquiry the most significant part of its distribution in the Migration Period lies in a cluster of sites near the mouth of the Elbe, with its ultimate extension westward along the Frisian coast. ${ }^{215}$ The fact and the timing of its occurrence at Ezinge seem to be critically significant in the present context, and the interest of the Saxo-Thuringian aspect of its distribution is marginal by comparison.

The type is known from an increasingly large number of sites in Britain, and is probably most widely familiar from the examples at Sutton Courtenay, ${ }^{216}$ Oxon, and Bourton-on-the-Water, Glos. ${ }^{217}$ Its place in British archaeology has recently been reviewed by Radford, ${ }^{218}$ who properly points out that this type of building usually occurs abroad as a form of lowly status ancillary to large buildings of more normal construction, ${ }^{219}$ as at Warendorf (Fig. 103 $\mathrm{V}(\mathrm{C}$ and B$))$.

Continental archaeologists have long regarded the Grubenhaus as a type of building primarily to be associated with specialized 'industrial' activities. ${ }^{220}$ In many cases structures of this kind give evidence of weaving, ${ }^{221}$ and the presence of a loom-weight (L2, Fig. 86) in Building Ci at Yeavering (Fig. 37) suggests that this building was probably a weaving-shed.

Building $\mathrm{D}_{3}$ (Figs. 47-49), however, was certainly a dwelling, and provides unusually good evidence of occupation. This structure appears to be one of the largest of its kind ever encountered, and is altogether distinguished from all other known examples by its close conformity to the plan of the normal halls of Phase II with which it was at least roughly
contemporary (Fig. 48, cf. Figs. 42 and 43). It may therefore be fortuitous that two ridgeposts appear to give it kinship with the common ' 2 -post' and ' 6 -post' forms among the normal Grubenhäuser, ${ }^{222}$ in which the use of a ridge-piece is to be inferred.

It is assumed that the rafters of buildings of this type normally rested on the ground outside the 'walls'. External post-holes are, however, distinctly unusual, and those of $\mathrm{D}_{3}$ cannot be matched elsewhere. Possibly the roof of this abnormal Grubenhaus was raised completely above the ground, in which case the inclined external posts may have existed, like those of the surface-based halls, to support the wall-plate. $D_{3}$, indeed, apart from the relative flimsiness of its walls, might simply be a 'normal' hall set into the ground. Nevertheless, while it is certainly impossible that the rafters of the major halls at Yeavering extended from the roof-peak to the ground, it remains conceivable that those of $\mathrm{D}_{3}$ and Ci did so. In such a variation they would follow the form shown, curiously enough, in the Book of Kells (Fig. 107). ${ }^{223}$ It is interesting to observe, in this depiction, the position of the figure of Christ; which is set so low as almost to suggest that a building with a sunken floor is denoted. This oddity is perhaps attributable in the last resort to artistic licence; but as Grubenhäuser are unknown in Ireland, the point might otherwise suggest that there was a Germanic element among the sources the illuminator drew from.

The form shown in Fig. 107 has, at all events, to be distinguished from the timber buttress-post, operating on the wall-plate, which is the normal form of Yeavering and in


Fig. ro7. Illustration of temple, from the Book of Kells.
later and different contexts is seen to develop still further (as is shown, for example, on a ninth-century pendant from the Viking town of Birka, ${ }^{224}$ illustrated in Fig. 108). Some uncertainty must remain as to the form actually used in Building $\mathrm{D}_{3}$, particularly in view of its seemingly redundant pairs of roof-posts. As in the other halls at Yeavering, there is ground for suspicion that the nave and the aisles were roofed separately - an arrangement that could at some stage have favoured the development of a clerestory.


Fig. 108. Pendant from Birka.
$\mathrm{D}_{3}$ and $\mathrm{Ci}_{1}$, then, are clearly related to the Grubenhäuser long recognized as aspects of intrusive, Anglo-Saxon, culture in Britain; but $\mathrm{D}_{3}$, particularly, is highly unorthodox in several respects and - like the surface-based buildings it accompanied - appears to show the effects of local, insular, development. The sunken-floored buildings at Yeavering are the northernmost of their kind known in Britain, and must represent a secondary ripple set up by that wave of influence from the Continental North Sea coastal zone which broke on the shores around the Wash and the Humber. The long persistence of the Grubenhaus elsewhere does not allow these particular examples to be dated save by their associations; but they fit well into place in the sixth- and seventh-century context indicated by the local evidence.

## (G) Building E (Figs. 55-57)

If the Grubenhäuser discussed above are the hall-mark of Anglo-Saxon intrusion on this site, Building E sets upon it the stamp of Rome; blurred and deformed, perhaps, but unmistakable.

It can be by no mere chance that this structure so closely resembles, in plan, one cuneus of a Roman theatre (Fig. rog). The translation of this form - represented in stone in Britain and abroad ${ }^{225}$ - into wood seems here to be part and parcel of the phenomenon of Yeaveringstyle; but timber amphitheatres are known to occur in Roman contexts and must be taken into consideration.

Two examples represent the wooden amphitheatre on the Continent: at Vindonissa, ${ }^{226}$ in Switzerland, and at Carnuntum, ${ }^{227}$ in Austria; in both of which series of discrete post-holes seem to form the structural basis. The form has its most impressive memorial in the carving, on Trajan's Column, of a large wooden assembly-structure with concentric tiers (Fig. Iog (d)) clearly of framed construction.

In 1960, remains of wooden structures were found to underlie the Roman amphitheatre at Chester. ${ }^{228}$ They consisted of a grillage of foundation-trenches, made up of a series proceeding radially outward from a common centre, crossed by concentric trenches at wider intervals. It seems certain that what is represented was a timber amphitheatre, to the lines of which its stone successor fairly closely conformed. The trenches are thought by the excavator to have contained wooden ground-sills, on which stout upright timbers were stepped at intervals of $5-7$ feet. The structure is provisionally dated to the last quarter of the first century.

It is extremely improbable that this class of structures can be held directly to account for the presence or the form of Building E in post-Roman Northumbria. Not only are the known examples remote in time and space, but they are in plan and construction not such as to encourage any attempt at derivation from them. The Yeavering assembly-structure, in which timber is used in the highly individual way characteristic of its local context, appears far more likely to have been a free translation into wood of a more enduring kind of monument, built of stone. Moreover, the form of Building $E$ is not that of an amphitheatre, but of a theatre. The whole is focused on a stage, not an arena: a minute but a veritable stage, which is given appropriate setting by a carefully contrived arrangement of screens, otherwise functionless (save perhaps as windbreaks or sounding-boards) behind it and to either side. This little stage recalls the diminished size of the corresponding feature in the RomanoCeltic, as compared with the classical (Vitruvian), theatre; ${ }^{229}$ and it is the Romano-Celtic type, occurring characteristically in Gaul, ${ }^{230}$ west of the Seine, that is represented by the three Roman theatres known in Britain. ${ }^{231}$

It may be thought that such analogy is over-precise and uncritical; for the odd form of Building E, on this model, at first suggests such ineptitude in the process of its borrowing as to deny its features any diagnostic value. But the fact that its plan is extended backwards in a single deep cuneus, instead of sideways into several shallow ones, could well be a mark of intelligent adaptation to its site. Experiment on that wind-swept spot has shown that a speaker standing on the site of the stage can usually command no wider lateral range than Building $E$ provided for. If the orator turns left or right to take in one part of a wider range, his voice is lost in another, in the prevailing wind. ${ }^{232}$ Hence, the plan of this structure by no means implies imperfect understanding of the original form. ${ }^{233}$

Clearly it would be impossible to locate any one, particular, original from which the Yeavering assembly-structure could plausibly be derived. One may look with speculative suspicion towards the colonia at York, perhaps, but no more than that. The theatre, known only from an inscription, at Petuaria ${ }^{234}$ (Brough) at the mouth of the Humber, offers a more tangible possibility. As yet, no Roman theatre is known among the townships of the Wall; but it is not inconceivable that timber-built theatres of the Roman period await discovery in this and other regions of the province. However that may be, the overwhelming probability that Building $E$ was directly or indirectly of Romano-British inspiration must be

(c) Verulamium

(d)

Fig. 10g. (a-c) Comparative plans of Romano-Celtic Theatres: (a) Orange, (b) Sanxay, (c) Verulamium and (d) Wooden amphitheatre carved on Trajan column. (a) and (b) after Brogan; (c) after Kenyon).
acknowledged. Its physical form may be best explained as a vernacular adaptation of a visibly surviving stone theatre; but its very existence must indicate that the ruling class at Yeavering was in some degree concerned at an early stage to emulate, to conserve or revive, the remains of Romano-British tradition.

## (H) The Graves and Standing Posts

This discussion may usefully be prefaced with a summary of Yeavering's history as a centre of burial and 'ritual' practices, which can now be seen to fall into the following sequence:
(A) Second and first millennia BC: a wide scatter of urned and unurned cremation-burials, apparently most concentrated on and around the western knoll defined by the $238^{\prime}$ contour, beside which stood a stone circle with a central monolith (p. rog, Figs. 73 and 50). A ditched bowl-barrow lay towards the eastern end of the whaleback (p. 83, Fig. 26).
(в) Either before or shortly after the time of Christ, most of the cremation-field was put under the plough. This would appear to be an enforced interruption, to be associated either with the establishment of the Yeavering Bell oppidum or with Roman agricultural policy during the occupation of the intramural region. Nevertheless, the stone circle was left in place, the barrow was not obliterated, and unurned cremations were inserted into the gullies between ploughed fields that were presumably still in use (Fig. 73).
(c) Thereafter, probably within the period AD 300-500, a palisaded enclosure was made at the eastern end of the site, its circuit swinging round the ditch of the round-barrow to take that feature into the enclosed space. Possibly it was at this time that the tall, free-standing post BX was first instituted at the apparent centre-point of the barrow (pp. 70-78, Figs. 26 and 32).
(D) Conceivably in the same period, the stone circle and its central monolith were dismantled and immediately replaced by a rectangular wooden building or enclosure within which wooden posts (probably successively) served as the centre-points from which series of radially orientated inhumation-burials were laid out. Two of the latest graves were exceptional in that each contained an artifact - an iron knife. Superinhumations indicate that the significance of this ritual centre was not short-lived. Two factors determine its relative dating within the general sequence. Clearly the wooden structures were dismantled before Buildings $\mathrm{D}_{3}$ and $\mathrm{D}_{4}$ were destroyed by fire, on the one hand; presumptively, the siting of $\mathrm{D}_{3}$ and $\mathrm{D}_{4}$ shows knowledge of, and respect for, the little radial cemetery (its centre marked for an indefinite period of time by the remains of Post I, which was never withdrawn) on the other hand. Conversely, the uniform orientation of $\mathrm{D}_{1}, \mathrm{D}_{2}$ and $\mathrm{D}_{3}$ is so much askew from the sides of the rectangular burial-enclosure as to imply that it had been demolished before these, Yeavering's first hall-like buildings, were put up. If that is accepted, the effect of later considerations will be to show that the relevant second phase of the Western Ring-ditch complex can hardly have begun much, if at all, later than about AD 500 (pp. 248-250, Figs. 41 and 50 ).
(E) Probably after the middle of the sixth century, following on the erection of Buildings $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$, came the development of what is called here the Western Cemetery, characterized by its adherence to the principle of east-west orientation with the body's head to the west. Inward and concealed nonconformity with some recently codified or more strictly enforced regulation is suggested by one outwardly orthodox grave; one half of which was the resting-place of a crouched body with head to the east, while the other half contained only an ox-tooth placed firmly on its floor. The general focus-point for a large number of burials is clearly seen to have been the south end of Building D2. That structure is uniquely distinguished also by the extraordinary process of encasement within later walls that preserved and perhaps enhanced its dignity; internally by a stacked accumulation of ox-skulls that is hardly to be explained in terms of any purely practical purpose, and externally by series of flimsy, short-lived huts. Altogether it would be unreasonable to resist the conclusion that $\mathrm{D}_{2}$ was some sort of temple, and accordingly attracted burials. At the same time it must
be observed that a rectangular enclosure served to fend off burials from a small preserve immediately adjoining the temple's south wall. This itself could be supposed to have been the particular focus-point to which the graves referred. Free-standing posts within it enhance this enclosure's resemblance to the ritual setting of posts, also attractive of burials, noticed under (D) above; but there are two important differences between these institutions. First, they are divergently orientated; and, secondly, whereas D2's enclosure rigidly excluded burials, the other was made to contain them. Since the fence associated with $\mathrm{D}_{2}$ is well aligned with the building itself, and its post-sockets testify to its demolition while the burned daub of the destroyed temple was still fresh, it must be concluded that this enclosure was established while the temple stood, and perished with it. The alternative explanation, that $\mathrm{D}_{2}$ was aligned on and bisected an earlier, oblong ritual enclosure (the northern side of which might be represented by the three clean-filled postholes running across the southern quarter of $\mathrm{D}_{2}$ 's interior), preserving only its southern half, is too elaborate to be sustained - and still requires the associated burials to have come into place during Dz's lifetime.
(F) Building $D_{3}$ appears to have been sited with respect for the pre-existence of the Western Cemetery, and hence is presumably of slightly later origin than the temple, $D_{2}$, which it seems possibly to have served in its specialized concern with the butchering and cooking, if not the slaughter, of oxen. D3's fence demonstrates that the Western Cemetery was still growing in its lifetime; and it is probable that the great wooden theatre, Building $E$, which can be but little if at all later in origin than the temple, D2, had a similar precinctual shield (Figs. 41, 47, 55).
(c) When, perhaps a decade or so later, A2, the first of Yeavering's two greatest timber halls, was put up to the east of the wooden assembly-structure, the temple and its two related buildings, its long axis was set out to bear precisely on Post BX. Evidently the post, set on the remaining mound of the round-barrow, was tall enough to be seen over the palisades of the Great Enclosure within which it stood; and possibly by this time Grave BXI was already in place on the alignment (pp. 73-85, Figs. 32, 60, 6r and 62).
(H) While Grave AX could be contemporary with the setting out of Building A2, it is far more likely to have been a dedicatory burial laid at the threshold of the succeeding hall $\mathrm{A}_{4}$, which too was laid out on the A2/BX alignment. A token groma, standard or staff, and a goat's skull, placed in the grave emphasize its formal, ritual character (pp. 200-203, Figs. 25 and 94).
(I) Meanwhile, during the successive life-spans of the great halls $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$, the Western Cemetery remained the only centre of normal burial: but then, when $\mathrm{A}_{4}$ and the Great Enclosure were burned down with the rest of the township, the area distinguished by the ritual features Post BX and Grave AX was immediately adopted as a new centre for revived archaic practices. Those earlier graves of the (now abandoned) Western Cemetery that were focused on the temple and its enclosed free-standing posts had perhaps perpetuated the customary principle of reference to physical datum-points of ritual significance; but behind the unbounded, sauve-qui-peut scrimmage of the string-graves there seems to be more vivid reminiscence of the older burial-centre that took a prehistoric ritual monument as its datum-point ( D , above). Only one grave (BZ) of this series contained objects certainly to be associated with the burial, and those were the belt-fittings shown in Fig. 87. The significance of the $V$-shaped and possibly boat-shaped patterns outlined by the string-graves will be discussed in due course (pp. 250-265, Fig. 31).
( J ) After an interval which allowed surface-deposits of charcoal and burnt daub to suffer erosion, the township was rebuilt in a new style. The Great Enclosure was not reinstated, however, and this allowed that part of the string-grave area that had once been enclosed within it to be used permanently as a cemetery. The new institution was markedly different from anything that had gone before. Henceforth burials were strictly confined within a fenced yard that took Post BX as the datum for its north side. The dominant feature within the enclosure was the east-west Building $B$, the interior of which is shown by multiple superinhumations to have been itself the most favoured place of burial. During this and the ensuing, final, structural phase (shown by the coin $\mathrm{G}_{2}$ not to have ended until after the middle of the seventh century) there is no sign of any but a strictly Christian usage (Figs. 27 and 33).

The evidence suggests that the various series of unfurnished inhumation-burials at Yeavering are all predominantly or entirely native. Although most, or possibly all of them, must belong to the period of English power in Bernicia, no specifically Anglo-Saxon indices occurred even in the four exceptional graves with associated dress-fittings. Survivals of skeletal remains were rare and exiguous, but they were sufficient to show that the bodies were customarily laid out in an extended or slightly flexed, supine position; and where the stature could be measured it was found characteristically to fall within the range from $4^{\prime}$ ro ${ }^{\prime \prime}$ to $5^{\prime} 4^{\prime \prime}$. Overall the consistent shortness of the graves at their basal levels was found reliably to indicate that the people buried in them were physically small. The body in Grave BZ was quite exceptional, in that its length was of the order of $5^{\prime} 9^{\prime \prime}$. The average stature at Yeavering has been found accordingly to fall well below that to be found in any similarly large sample of authentic Anglo-Saxons. It might have been supposed that a separate English cemetery existed in another place near Yeavering were it not that the absence of recognizably typical Anglo-Saxon burials is characteristic of the whole region. It may be concluded with some confidence, from the evidence of its successive cemeteries, that the human context of the Yeavering township was a substantially intact native population.

There is no basis, then, for supposing that there was any considerable permanent Germanic colony in Glendale. Yet it is evident from its buildings that there was an influential Germanic political presence, and the associations of a handful of domestic objects indicate that a few recognizably Anglo-Saxon incomers must briefly - or intermittently have lived on the site. Did none die there? Verdict must be pronounced on the four exceptional graves open to the charge of un-British behaviour.
Grave $A X$ : refs. under (H) above. This altogether extraordinary and originally isolated burial might, from the mere fact of its having been ceremoniously furnished, be reflective of Anglo-Saxon influence. Nevertheless, in so far as it can be read, the symbolism of its contained objects - the goat's skull, the putative goat modelled on the token groma/standard/staff-seems possibly to be meaningful only in the context of the local, British past; and the grave's ceremonial reference to Post BX points in the same direction. Even if the making of this ritual interment was incited by, and accessory to, some Anglo-Saxon purpose, it should perhaps be left on probation. Presumably the lord of the Heorot-like hall did know about the watcher by his threshold?

Grave BZ: refs. under ( I ) above. Here, as has been remarked, lay the shadowy traces of the tallest man to be seen at Yeavering. Further distinguished in death not only by the iron fittings of his belt and a knife (all of which, though not unambiguous or conclusive in themselves, would not seem out of place in the meanest sort of AngloSaxon grave), but also by his respectful enclosure within a setting of locally 'normal' graves, this individual has the strongest claim of any buried on the site to be considered as a candidate for Anglo-Saxon identity.
Two inhumations in the Western Ring-ditch complex (refs. under (D) above) were each accompanied by a small iron knife. One of these graves was demonstrably a very late feature of that particular burial-complex, the other probably little if at all earlier. The knives themselves are of simple, commonplace forms such as are known to have been used for centuries in both the native and the Anglo-Saxon worlds. As usual at Yeavering, the skeletal traces were exiguous in the extreme; but, even when allowance has been made for some degree of flexing, it is evident that neither body can possibly have exceeded a height of $5^{\prime} 3^{\prime \prime}$. These could perfectly well be native British burials; and the presence of the knives is unlikely to be reflective of more than Anglo-Saxon influence if indeed of that.

Thus, in short, only one among the site's massing graves is probably representative of normal pagan-Saxon practice, and two others possibly; with Grave AX a ritual half-breed,
perhaps, in its own curious limbo. If there was, despite appearances, any considerable Anglo-Saxon element in the population of Yeavering's successive inhumation-cemeteries, it must have surrendered its archaeological identity through a distinctly one-sided process of cultural exchange. Evidently pagan English custom in the furnishing of graves had little or no influence on native practice.

That being so, it seems extremely unlikely that native adoption of the inhuming rite itself was enforced by Anglo-Saxon pressure. It is more than merely possible that unfurnished inhumation had become the popular mode in the native world some time before it appeared at Yeavering. Can it have been a pre-Saxon and non-Saxon fashion?

At first sight that question seems unapproachable, because there is notoriously a wide hiatus in our knowledge of native burial custom north of the Tyne. Graves firmly attributable to the Celtic and Roman Iron Ages are virtually unknown, indeed, in the relevant areas of the Celtic north and west. We are taught at the academic mother's knee that it is dangerous to argue from silence; yet still there is such a thing as negative evidence.

What form of burial can it have been that would, in the special conditions of the regions involved, so consistently have resisted discovery and identification? The answer is obvious enough - it must have been unfurnished and without any enduringly recognizable type of monument. Accidental discoveries of burials are usually brought to notice only when there are grave-goods or identifiable skeletons to attract attention; and the predominantly acid soils of the north tend (as at Yeavering) almost wholly to devour and absorb skeletal remains. In the absence of grave-goods or skeletons the layman can readily identify, the archaeologist will be led to make his own more purposeful discoveries only by the signal of an outwardly visible monument. Thus, it is highly probable that the hiatus in question is simply a matter of archaeological failure in the particular conditions of Fox's Highland Zone. Such accidental discoveries as are recognized where local conditions exceptionally allow skeletal remains visibly to survive will be set aside as undatable, when the lack of monument or grave-goods defies the conventional means of assessment; and then there will be little inducement for resort to the expensive magic of radio-carbon dating. In such circumstances it would be quite unreasonable to postulate the existence of a burial-rite that required the provision of any but the most exiguous grave-goods or monuments. The choice lies between unfurnished inhumation and unfurnished cremation; and, since burnt bones are less easily digested by greedy soils than are unburnt skeletons, it would seem on the whole rather more likely that we have been archaeologically defeated by an inhuming rather than a cremating custom. The possibility that unfurnished inhumation had been widely popularized in the Celtic world before the end of the Roman Iron Age is certainly not one to be dismissed out of hand.

With that general, tentative conclusion in mind, the particular issue raised by Yeavering's early adoption of the inhuming rite can be more directly attacked. From the preceding summary it appears that three moments in Yeavering's archaeological history can be isolated as the most probable occasions for change in ritual practice, and these must be examined.

The first of those moments of change occurs in the period covered by (в) in the summary, when most of Yeavering's ancient cremation-cemetery was put under the plough. This
radical break with earlier native tradition is attributable to intervention from outside, probably when the local Bronze-age cultural hangover was disturbed by the arrival of curiously incomplete elements of Iron-age culture - at the time, that is to say, when the landscape was transformed by the building of the Yeavering Bell oppidum and other upland enclosures. The possibility remains that Yeavering's fields were laid out during the Roman occupation of the intramural region. Whichever explanation is preferred, some degree of native suppression is implied. The seemingly furtive insertion of unurned cremation-burials into the gullies between the fields must attest to the ancient burial-site's continuing sanctity in native eyes (whether or not some fertilizing, golden-boughish motive may additionally be imputed). The dating of these, Yeavering's last cremations, hangs on a single, securely stratified bead which is set somewhere around the third century AD. Until then, at least, there were still some natives who believed in a cremative passport to Valhalla; but it is not inconceivable that with the coming of the plough some seed of ritual change had been sown.

The second time of change, at (c) in the summary, is possibly the most crucial in the present context. Its fields abandoned, the site is dominated by the first version of the Great Enclosure, which appears to have been the original nucleus around which the township was to grow. That, apparently a new institution, shows nevertheless that its makers still clung to pre-Roman, 'native', tradition both in palisade-construction and in pottery-making. Two Bronze-age monuments have survived meanwhile: one, the round-barrow, has been taken into the Great Enclosure from the first and will later influence the siting of an inhumationcemetery; the other, the stone circle, is more quickly adopted as a centre for exploitation of the unfurnished inhumation-rite. It would seem, then, that cremation was finally given up more or less at the same time as the field-system; and that either the beginning or the culmination of a swing to inhumation was roughly contemporary with the inception of the Great Enclosure. So far this is a story told by purely 'native' works and manufactures - the archaeological register of local, native reactions over half a millennium and more. Some of the external causes of those native reflexes - ideas, creeds and policies, especially - can only appear in a wider historical view; but one thing at least is clear. Up to this point there is no sign of changes brought about simply by massive ethnic replacement. Changes in leadership and loyalty doubtless there were; but the native population appears throughout to have preserved itself (and at least the domestic elements of its material culture) remarkably well.

It is only in the third moment of change, at ( E ) in our summary, with the appearance of Yeavering's first hall-like buildings, that Anglo-Saxon intrusion comes archaeologically into evidence. The nature of that intrusion has an important bearing on the 'religious' aspect of the Yeavering township's development, and can be ascertained through inspection of its immediate results.

The arrival of the English at Yeavering is associated, on this plane, merely with the replacement of a small and seemingly exclusive ritual centre by something obviously more in the nature of a public institution. Possibly the old centre had been reserved to a native élite or sect; but it was already overburied, and its supersession could speak as convincingly of practical necessity as of any revolutionary intent. True, the new temple, large and locally impressive, was in itself an innovation; but its southern enclosure provided, like the old centre, free-standing posts that became the focus-point for inhumation-burials. Moreover the new posts, less than a hundred feet from the old, were actually closer to the ritual hub
around which Yeavering's most ancient funerary observances seem to have revolved - the whaleback's western knoll, defined by the $238^{\prime}$ contour. That natural feature had earlier been the focus-point of the site's prehistoric cremation-burials, and the setting up beside it of the stone circle seems unlikely to have been fortuitous. Possibly the knoll itself carried a standing stone, or some other monument whose last traces have been removed by modern ploughing; but, however that may be, it is a matter of plain fact that when Yeavering emerges into history it has a temple which, newly replacing the older centre on the site of the stone circle, is laid out on a true radius from the centre-point of that same knoll.

There is here the possibly startling suggestion of an immensely long continuity in local 'ritual' observance - of a thread running unbroken (if at times weakened) from the Bronze to the Anglo-Saxon Age. That issue, clearly of fundamental importance, must for the moment be left aside. What demands special remark, in the present context, is that the English hand in Yeavering's ultimate development appears to have been far less suppressive of earlier 'native' ways than the Celtic plough half a millennium or more before. The archaeologically declared arrival of the English brings no sign at all of massive native dispossession: on the contrary, it brings more 'natives' than ever before into archaeological view. They are now specifically provided for (and are conveniently paraded for archaeological inspection) in a new cemetery, subject at worst to some new regulation which was at one and the same time more liberally - 'democratically'? - conceived and more strictly enforced than whatever order had previously prevailed.

That may possibly be illustrated by the one exceptional burial that lurked near the temple's S.W. corner, among the regularly unfurnished, head-to-west inhumations of the Western Cemetery. One half of the grave contained a tightly crouched body, its head to the east. The other half of the grave-floor was occupied only by a single ox-tooth. ${ }^{235}$ It cannot be supposed that this burial was significantly earlier than the rest, since obviously it was made outwardly to conform to the general pattern. Hence, this striking divergence in ritual practice could be interpreted as the mark of dissent under the pressure of a new insistence on procedural orthodoxy. It would be wrong to lay too much stress on this single instance; but it is of interest not least because it shows a form of burial that is locally, as elsewhere, familiar in a prehistoric context. Whether or not this crouched burial itself actually represents a true survival of ancient tradition, it serves opportunely as a reminder that Yeavering's district patently was archaically conservative - at least in one stratum of its possibly diversely built 'native' society. The organization and control of any unified, 'official' system of public observance - pagan or Christian - must have been particularly difficult in such an area.

Clearly it is with that kind of purpose that the works of the 'Anglo-Saxon intrusion' must be associated. At first glance, the Western Cemetery seems to lend itself to interpretation as a Christian institution from first to last; but more careful inspection of the evidence shows that it cannot have been Christian in its inception (or at all events not Christian in any but some local and unfathomably Pickwickian sense). Yeavering's new temple and its cemetery are better viewed, for the moment, as institutions conceived by a pagan or semi-pagan upper class in the new, politically more ambitious, Anglo-Saxon age. No more upsetting demand need be involved than insistence on such uniformity of grave-orientation as would most economically suit the formal burial-bounds laid down with a view to future 'town-planning'.

All in all, far from its having been dispossessive or disruptive, the arrival of the English
at Yeavering coincides with the making of arrangements that seem to have acknowledged and perpetuated older, native traditions. Development there certainly was, and perhaps exploitation; but there is no need, on the evidence, to suppose that the 'Anglo-Saxon presence' at Yeavering amounted to anything more than modern jargon would recognize as a purely 'political presence'.

Accordingly there is no need further to argue against the hard, visible grain of the evidence. Yeavering's early unfurnished inhumation-burials are both unchristian in their associations and at odds with pagan Anglo-Saxon custom. Like Yeavering's wooden theatre, put up as the Western Cemetery began to grow, they are far more economically accounted for in native-British than intrusive-Germanic terms.

*     *         * 

Neither historian nor archaeologist could reasonably suggest that the radial inhumationburials of Yeavering's Western Ring-ditch complex were of Christian inspiration; and it has to be concluded that $\mathrm{D}_{2}$ (the temple), its free-standing posts and its cemetery merely gave grander form to the same, continuing type of ritual practice - presumably pagan. Yet it is not too great a presumption on the bounds of Chapter 6 to seek, even now, the signs of that allegedly massive conversion to Christianity which brought Yeavering to historical notice. From the dating of the small-finds, it appears that this moment of politico-religious ('nonethnic') change lies to be discovered somewhere in the evidence that has been described.

All that need be said at this moment is that Paulinus must be supposed to have arrived while 'pagan' observances were the local order of the day; and $\mathrm{D}_{2}$ is the last formal institution that can be supposed to have existed for purely - and, as it were, officially - pagan purposes. Since $\mathrm{D}_{2}$ and the Western Cemetery not only pre-existed but also survived Paulinus's recorded activities, it appears likely that he found the building and its associated rite of extended, unfurnished inhumation suitable to his needs. All that was involved, perhaps, was an archaeologically unrewarding matter of reconsecration - people were allowed to go on doing much the same things, and were merely asked to feel differently about them.

When ( I ) of our summary demonstrates how quickly the first destruction of the Yeavering township led to reversion to the kind of practice seen in (D) and (H), it would seem that up to that time Yeavering's motto might well have been plus ça change, plus c'est la même chose. The long-expected, formal, Christian/pagan contrast occurs only in (J), where at last it appears that Yeavering yielded in the end to the spiritual, intellectual and political tide of truly medieval ideas.

Accordingly there is every reason to see in (i) the last, desperate evocation of Yeavering's pagan pantheon. All that separates the string-graves of that disastrous moment from the radial inhumations of $(\mathrm{D})$ is their lesser degree of deliberate, institutional formality. Whether this be true or no, it is in its string-graves that Yeavering seems most firmly to be linked in its ritual 'native' practice to the contemporary custom of its most immediate north-British neighbours. Attention must now be turned to these very curious burials.

As an essential preliminary, the string-graves must at the outset be set more firmly into their local context.

Collectively the string-graves, laid out more or less simultaneously, testify to the fiery, all-consuming disaster to which the summary's (r) refers. Each single burial contributes its own pathetic deposition of newly burnt material, and so corroborates the general story of wholesale destruction. But are these so-called string-graves representative of defeated native defenders or of expelled, intrusive attackers?

Closer inspection of the evidence allows that question to be resolved quite easily; for the setting-out of the string-graves betrays intimate knowledge of the site's past history. There is unambiguous reference to the remarkable Grave AX, which by then must have been in place for some considerable time (as much as fifteen years, possibly, if Chapter 6 of this book is to be trusted) ; yet the presence of Grave AX at the time in question cannot still have been obvious from any superficial indication, since the existence of any continuously visible marker must inevitably have obstructed free use of Building A4's east door. Post AX appears to have been removed before Building $\mathrm{A}_{4}$ and the township were destroyed by fire; and the change of plan during the construction of $\mathrm{A}_{4}$ clearly must have destroyed the symmetry of the relationship between the doorway and the grave, as it was originally conceived. Accordingly, it must be concluded that the precise attachment of one series of string-graves to the eastern end of Grave AX speaks even more forcefully of local loyalty and knowledge than does the laying-out of Graves BXI and 2 at the foot of the presumably surviving Post BX.

While it is evident that some other rows of string-graves were not aligned on the two major datum-points, Post BX and Grave AX, there is more than one instance of a V-shaped setting resulting from the combination of two grave-rows; which implies that in each case there must have been a deliberately created point of common focus. Overall, there is evident indication of datum-points of one kind or another from which the characteristic lines of burial were set out. Conceivably an important grave (that, say, of an official or the head of a family) could in itself have served as the point of origin for a line of burials; but the occurrence of post-holes in possibly significant positions among the graves south of Building B (Fig. 3I) may mean that the secondary ritual foci implied by the evidence may actually have been, as often as not, posts set up around the site of the primary and paramount feature, Post BX.

Fundamentally that form of procedure is evidently the key to the type of ritual practice current during Yeavering's earlier phases; for various long-standing, and otherwise inexplicable, features of the township's physical organization fall into a consistent pattern only when viewed as successive references and cross-references to earlier ritual use of its site. There is, as it were, a chain of structures linked one to another by ritual association. The primary datum at the eastern end of the site is the barrow, east of the later complex of major halls, the mound of which is likely to have been the most conspicuous artificial feature on the eastern part of the whaleback before the palisaded enclosure was built (Fig. 26). Post BX is in the end set up as nearly as possible at its centre, and becomes the point of origin of the alignment controlling the setting-out of Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$. Grave AX is laid out on the same alignment; and so it, too, is a reference to Post BX. Graves BXI and $\mathrm{BX}_{2}$ are laid at the foot of Post BX itself, so directly as for their making to expose part of it which normally would be hidden in the soil of the burial-mound. That a line of stringgraves then takes Grave AX as its point of origin is at once a direct reference to a secondary ritual feature and an indirect allusion to the primary one. The string-graves are laid out
from secondary datum-points clustered around the southern side of Post BX. After a brief interval, a Christian church is built in the same area, and its fenced cemetery is so laid out as just to take in the site of Post BX, which seems actually to have been chosen as the datum for its northern boundary.

In those terms, the string-graves appear to be connected with a long-established local code of ritual procedure, showing as they do not only eager participation in the customs associated with the site but also particularized knowledge of past events. When, again, the small stature of the bodies buried in them is taken into account, there can be no doubt but that these graves were made by and for natives of the district. These circumstances suggest that the string-graves are of pagan or semi-pagan character. First, they seem to have been deliberately placed in relation to Grave AX and Post BX, which themselves are representative of procedures that could hardly be thought to be Christian. Secondly, they revert to the basic pattern-building unit observed for obviously pre-Christian inhumations radially laid out in the Western Ring-ditch complex. Thirdly, they are in complete contrast, in their collective organization, with the succeeding cemetery associated with Building B, which was certainly a Christian institution.

The string-graves may accordingly be accepted as being representative of Yeavering's last, wild variations on a locally ancient (and not perceptibly Christian) theme. Confirmation (and even extension) of the locally 'native' aspect of their significance may follow from examination of their nearest analogues in the 'north-British' world to which Yeavering belonged.

In the aggregate, Yeavering's so-called 'string-graves' invite comparison with the longcist cemeteries so numerous north of the Tweed, ${ }^{236}$ of which five features are characteristic: extended inhumation; absence of grave-goods; a tendency to linear 'end-on' alignment of burials; association with orthostats; and stone linings to the graves. In all but the last respect, the correspondence is very close, as comparison of Figs. 3 I and ino will show; and there is such probability of a real connexion that the issue must be considered in some detail.

We are not here concerned with isolated long-cist burials, but with those cemeteries that are wholly or mainly composed of graves with stone linings. They occur characteristically in the Celtic margins of the British Isles (notably in Ireland and the Isle of Man, as well as in Scotland and the south-west), and are known in various forms on the Continent. It is generally agreed that most examples in Britain and abroad fall within the period from the fourth or fifth century to the eighth, apart from a few inevitable instances of localized later persistence; and that, while the basic form must necessarily have been of earlier and presumably pagan origin, its ultimate exploitation was as often as not a local response to the fashion of extended inhumation spread by the Christian church. When its later manifestations are viewed overall, it may seem that the essential effects in question can be attributed to one simple cause; but the European distribution as a whole cannot be regarded as being necessarily representative from beginning to end of a single phenomenon. The suggestion has been offered that in some places even pagan-Germanic influence could have spread the basic, inhuming form of burial beyond its original limits in late-Roman or early postRoman times; but obviously that is not, on the face of the matter, sufficient to account for the whole of the British distribution and its interestingly diverse aspects. ${ }^{237}$ Consequently, although there is a besetting temptation definitively to liken the string-graves of Yeavering


Fig. in. Long-cist cemetery at Lasswade, Midlothian (after Henshall).
and the long-cist cemeteries of Scotland and Wales to the stone-lined 'row-graves' of Germany, the well-known Reihengräber, ${ }^{238}$ that comfortable indulgence is particularly to be resisted. In Britain it is the absence of grave-goods that is characteristic; whereas it is typical of the Reihengräber that they are conveniently furnished in both their pagan and Christian phases: accordingly such resemblance as there is is extremely superficial and unsatisfying.

From the pattern of its distribution in Britain, the long-cist cemetery appears to be essentially a Celtic phenomenon. It is not necessary to suppose that any specifically AngloSaxon influence played a part in its primary evolution: that would require the distributional pattern to be turned inside out. The occurrence of this form in Scotland is sometimes said to have an 'Anglian' connotation; but, although there is indeed striking correspondence between the north-eastern part of the distribution and the northernmost centres of the Northumbrian church historically known, this can hardly be indicative of Anglo-Saxon origin. Inspection of the long-cist cemetery's southern 'frontier', and of its associations, will show that what underlies the phenomenon must be the local custom of a pre-Germanic phase.

The known distribution of the long-cist cemetery in the eastern part of North Britain, with which we are specially concerned, shows this form to have been a special feature of the lands around the Firth of Forth (Fig. III). Its focus is a remarkably dense concentration of sites in the Lothians, particularly intense in the neighbourhood of Edinburgh. Northwards, there is a very sparse extension along the coast up to and beyond the Firth of Tay. Southwards, the main frontier of this type of cemetery runs along the northern slopes of the Lammermoors, with perhaps half-a-dozen outlying examples along their southern edge. Only one (dubious) instance is known south of the northern side of the Tweed Valley, and that lies curiously enough at Bamburgh on the other side of the estuary. There, in the middle of the nineteenth century, a gale exposed a few cist-graves; but the evidence is too slight and uncertain to preclude the possibility that these burials were prehistoric. Apart from that single possible exception, the occurrence of the unfurnished long-cist cemetery is a phenomenon that speaks of a sharp division between the Tweed-Forth and Tyne-Tweed regions.

What sets the string-graves at Yeavering apart from the long-cist cemeteries is, however, simply their lack of stone linings. Is it possible that the presence or absence of the cist is simply a matter of regional divergence from what was originally a common ritual theme? Adoption of the long-cist form north of the Tweed might initially have been a response to a favourable geological context; for the screes of the sea-cliffs from the Tweed estuary to the Forth offer more plentiful supplies of fissile stone than do those further south. The matter could not be explained entirely in terms of geological amenities, even so; for the long-cist distribution is in some places more and in others less restricted than would be the case had the local availability of fissile stone been the sole determinant. The intensity of the distribution in the Lothians is not to be matched in any of the neighbouring areas where suitable stone is readily to hand; and, conversely, a great many of the instances within the focal area occur ten miles and more inland from the coast. Identification of the kinds and sources of stone used in long-cist graves will probably throw more light on this problem, and the assumption that sea-cliffs were the primary source of material has been made here merely for the sake of economy and impartiality. It is clear enough, even on that assumption, that the long-cist distribution in the Lothians must be representative of the bounds of a fashion


Fig. iri. Distribution-map; long-cist cemeteries, memorial stones and heavy silver chains in the Tyne-Forth province.
in funerary ritual. If closer study reveals that the stone for grave-linings was in some cases quarried inland, the force of that conclusion will be so much the greater.

Meanwhile, there need be no doubt as to the soundness of the negative evidence in the region south of the Tweed, for of all the early kinds of cemetery none is more easily discoverable than that which consists of graves encased in stone. Bronze-age cists, after all, are among the most familiar features of the archaeology of the Tyne-Tweed region, and if the
later long-cist cemeteries were as important there as in the Lothians they should be discovered no less frequently. Unfurnished and unlined graves, on the other hand, could await discovery in the Lothians no less than in the lands south of the Tweed.

If there is at bottom any authentic connexion between the string-graves at Yeavering and the long-cist cemeteries of the Lothians, the link must be an early one that was weakened or broken by later events. Such a connexion could be explained on the hypothesis that at some stage during the early centuries AD the practice of extended, unfurnished inhumation (perhaps associated with orthostatic monuments and alignments of graves) was adopted over the greater part of the Tyne-Forth province; and that the adoption of, and prolonged adherence to, the long-cist type of cemetery around the Forth was a localized and relatively late development. It is obviously rather more than merely conceivable that the standing-stones and lined graves there stem directly and continuously from prehistoric local custom in the use of stone orthostats and cists; ${ }^{239}$ whereas throughout the long history of the Yeavering settlement stone was consistently neglected as a structural material once the little stone circle and central monolith had been put up. Thereafter Yeavering's orthostats were of wood and its graves were from the first unlined. There might even be a hint, in the deliberate overthrowing of the stone uprights of the Western Ring-ditch complex, and the immediate substitution of wooden structures, that wood locally came to be regarded in the end as having some special ritual virtue of its own. Thus, what is at issue may be a growing divergence in practice from a form of burial custom that was originally in common between the regions to the north and south of the Tweed.

The difference is such as to suggest the possibility of some kind or degree of religious schism. The 'fashion' denoted by the protohistoric or early-historic cist-cemeteries of the Lothians may be a matter of sectarian observance, and particular attention must be given to their dating and associations. As has been remarked above, there is general agreement that the acceptably defined long-cist cemeteries belong mainly to the Early Christian period and that most or all are actually representative of Christian practice in the north and west. The precise date of their inception has for obvious reasons not been determined archaeologically or historically; but the historical probability that the northern series begins in or by the fifth century ${ }^{240}$ is strengthened by the presence in the intramural region of a series of inscribed memorial stones which appears to begin somewhere about 500 . Orientated cist-graves containing extended inhumations without grave-goods have been found in some degree of association with two of those Early Christian monuments: the Cat Stane, on the outskirts of Edinburgh, and the Yarrow Stone in Selkirkshire. ${ }^{241}$ The original associations of the Liddel Water memorial-stone ${ }^{242}$ and the Brigomaglos stone at Chesterholm ${ }^{243}$ are less clear; but in general there is reason to set not only the memorial-stones but the long-cist cemeteries also into an Early Christian milieu, and the probability that the two forms were locally directly associated in the sixth century or earlier deserves serious consideration. Uninscribed monoliths have been recorded in unambiguous association with long-cist cemeteries on sites distinguished also by the presence of inscribed memorial-stones; ${ }^{244}$ so that clearly there is no reason to suppose that there is necessarily any fundamental difference in kind between the burials associated only with one form of monument or the other. It is well to realize, moreover, how many inscribed and uninscribed monoliths may have been removed or destroyed. A long-cist cemetery once distinguished by a large inscribed memorial-stone may now be
marked only by an uninscribed standing-stone which was formerly a subordinate monument - or indeed by nothing at all.

When it is acknowledged that the long-cist cemeteries and the memorial-stones are related aspects of the Early Christian situation between the walls, their combined distribution there (Fig. MII) takes on particular interest. While the long-cist cemeteries are so confined as to give the lands north of the Tweed a quite distinctive appearance, the easternmost memorial-stones of the intramural region form a line from Edinburgh through Selkirkshire to Liddesdale and Hadrian's Wall. North of the Tweed and westward of that line the activities of the early Celtic church are comparatively well attested by written and archaeological evidences; but, to the east, the area between Tyne and Tweed is barren of all such indications. Thus in both respects there is the semblance of an ancient cultural frontier surrounding the primary nucleus of Bernicia.

The fact that both distributions stop short at the Bernician threshold is unlikely to be a matter of mere chance. It would, after all, be an extraordinary coincidence that so utterly removed all memorial-stones and so persistently concealed all long-cist cemeteries over such an extensive and well-defined area, while allowing the same region's undoubtedly prehistoric standing-stones and cists to survive and be discovered. Accordingly the lack in Bernicia of such acknowledged marks of early Christianity as are characteristic of the surrounding areas is most likely to be meaningful. The simplest explanation may well be the right one: that is, that Bernicia - unlike its neighbours to the north and west - was unresponsive to the influence of the early Celtic church. The aggressively pagan appearance of the string-graves at Yeavering, accordingly, would not be misleading.

This proposition, that the unfurnished inhumation-cemeteries with stone-lined graves are Christian, north of the Tweed, while comparable but unlined graves at Yeavering are pagan, is more realistic than at first appears. The very silence of the archaeological record as to the burial customs of the Tyne-Forth province, in the immediately preceding period, has already forced us to conclude that some form of unfurnished burial-rite had there become the common order of the day even before the Celtic church became locally effective. True, that rite could nearly as well have been unurned cremation as unfurnished inhumation; but in the actual circumstances it is fairly safe to assume that it was the latter mode that had actually been adopted. The availability of fissile stone in the Tweed-Forth region could well have encouraged specially early Christian use of stone-lined graves there (whether or not as a direct continuation of the prehistoric cist tradition) ; but even so it would appear that overall the sole contribution of the Christian church was merely the application of a more rigid systematization to pre-existing local practices. Missionaries, after all, usually find it expedient to temper the wind to the shorn lamb, and tolerate as much as can be made acceptable in the earlier customs of their converts. The systematic exploitation of the stone-lined type of grave in the Lothians may accordingly be due simply to its incorporation and perpetuation in the code of local Early Christian usage.

Were it not for the general lack of Early Christian indices in Bernicia, and the particularly pagan aspect of the string-graves and other features at Yeavering, the same argument might perhaps have been applied to the area south of the Tweed. There, too, the Christian church is likely in due course to have preserved the local form of unfurnished inhumation, which - for some earlier and non-Christian reasons - happened not to involve the lining of
its graves with stone slabs. But had the whole great province been at the outset united in willing response to Christianity, subject in the same degree and at the same time to the same regulations, and without any earlier divergence in pagan custom, it is highly unlikely that any difference between its component parts would either have arisen or have persisted into later times. The cleavage that is in evidence must go back at least to the local beginnings of Christianity. As the evidence stands, we must conclude that Bernicia was probably immune from, or indifferent to, the very earliest influences of the Christian church. It was declared pagan territory in 627, when Paulinus came to Yeavering to preach Christianity, and the string-graves must accordingly testify to a spontaneous reversion to paganism immediately on Edwin's death. In short, the fundamental resemblance between the long-cist cemeteries and the string-graves points to the existence of an ancient and probably pre-Christian community of custom in the Tyne-Forth region; but the difference between them is likely to be the mark of a division in or before the fifth century, and of separate and divergent developments during the initial phases of Christianity.

Other possible indications of an early Bernician divorce from its neighbours will be cited in the final section of this book, where the possible cause and implications of the division will be considered. What is of more immediate relevance here is the effect of the preceding argument on our view of the protohistoric burials at Yeavering; for if that discussion arrived anywhere near the truth, unfurnished inhumation is all the more likely to have been the current practice at Yeavering before the days of local Anglo-Saxon power. That does not, of course, deny the possibility or probability of some of the later graves beside Building $\mathrm{D}_{2}$ having been those of nominal converts to Paulinus's special Christian pleading; but it does notably increase the interest of Yeavering's local responses to challenges from the outside world - initially from its political involvement with Anglo-Saxons, later from Christian attacks on its old, deeply rooted pagan beliefs.

Not the least striking or potentially significant of those responses is the placing of the string-graves around Post BX, a pre-Paulinian institution with ancient associations of pagan aspect. There was then nothing physically to prevent continued use of the Western Cemetery, which must for some time have been given over to outwardly Christian use. Hence, this sudden (but lasting) change of burial-place is all the more suggestive of wholesale reversion to earlier belief - a reinvocation of all that Post BX originally stood for. What, then, can have been the significance of this wooden orthostat that had served as the primary datum-point for two successive halls, that had had the 'ritual' Grave AX attached to it, and now became the centre of attraction for other burials, before finally being taken into the bounds of a Christian churchyard? (Figs. 32 and 33).

That crucial question, though unanswerable, deserves to be put into wider and deeper perspective; for it involves what obviously must have been a 'key' feature of Yeavering's ritual practice. The general underlying principle has already been recognized - from first to last there was ritual reference to physical datum-points, and the primary points were allowed to beget secondary ones. But the particularly distinguishing characteristic of Yeavering's archaeological history lies in the consistently special use made throughout of free-standing wooden posts as ritual reference-points. In the first instance, the central monolith of a prehistoric stone circle is removed to make way for series of wooden posts that serve for the attachment of radial series of inhumation-graves: can this move be indicative of a cumula-
tively complicated symbolism to be displayed by the ritual uprights? Wood, as the builders of the township so clearly knew, is far more easily shaped and carved than stone. At all events, when Yeavering goes on to achieve the dignity of a more ambitious wooden temple ( $\mathrm{D}_{2}$ ), burial focuses on a southern enclosure that houses nothing but free-standing posts, and there is another, enormously massive, wooden pillar at the temple's N.W, corner. Again, when Yeavering's most extraordinary structure, the timber theatre (E), arises, it centres on the free-standing Post E that marks the point from which it was laid out; and the site's first and greatest major halls thereafter pay their own unmistakable tribute to the freestanding Post BX, whose lasting significance has already been noticed. It cannot be entirely meaningless that, in all but one of these instances (the last free-standing post of $\mathrm{D}_{2}$ 's southern enclosure), the dominant free-standing posts of each phase were never withdrawn from the ground, and were respectfully left to decay in their own good time. In every case, some 'ritual' meaning or purpose is demonstrated; and, when Post BX is found ultimately to have fulfilled the desperate needs of Yeavering's demonstrably final pagan phase, when the Great Enclosure that shielded it is seen to have been maintained and even dignified up to the time when Yeavering became at last 'historically' Christian, it must seem that whatever magic attached to the raising of this timber upright was also part and parcel of the Great Enclosure itself. Post BX, after all, was in the first place deliberately planted on a prehistoric burialmound, which the palisades of the Great Enclosure, Yeavering's oldest structure, had already been made from the very outset to respect and contain. Accordingly it would not be illogical to suppose that from a very early date the place called Gefrin was the acknowledged centre at which certain ancient, 'native' and 'ritual' purposes were regularly fulfilled. Post BX will stand, then, in that context, as the last of a local series of coded, and to us unreadable, messages from the formative past of North Britain's intramural region.

The general background to use of free-standing pillars, figures and monoliths in the Celtic world has recently been surveyed by Powell, ${ }^{245}$ who draws attention to the (presumably ritual) deposition of a plough-share at the foot of the central post in the Iron-age shrine at Frilford, ${ }^{246}$ Oxon. In this connexion it should be noted that at Yeavering, in addition to the goat's skull in Grave AX, teeth of sheep/goat were present in the packing of Post-hole AX, and in the top level of the packing-soil around the great post near Building D2's N.W. corner (whereas the great bulk of the animal-bones within that building was made up of oxskulls) ; and that unidentifiable remains of bone occurred both around Post BX and on the floor of the pit housing Post E. In view of the extreme rarity of remains of bone in the vastly more numerous post-holes that had obviously structural functions, it is most unlikely that the consistent occurrence of animal-bones in all these special instances is fortuitous.

There is every indication, moreover, that these particular posts were made to be especially conspicuous features of Yeavering's townscape. Post BX must have stood to a height exceeding 6 or 8 feet above ground-level, since the evidence shows that it was used as a sightingpoint from the west even when the timber walls of the Great Enclosure intervened. All stood on sites where the evidence speaks plainly of ritual activity; and the special display of (E) at the focal point of the assembly-structure cannot have been without meaning or purpose. Features of such a kind, by their very nature, resist interpretation; but it is safe to assume that these perennially upstanding posts were either intrinsically symbolic or carried emblems. All appear to have stood throughout the whole of Phase III, and some (Post BX
and the posts of the Western Ring-ditch complex particularly) may well have been of even earlier origin; while the lifetime of Post E certainly did continue into Phase IV. Such minimal changes in funerary custom as have been remarked within that span of time appear to correspond with the two main (divided) historical phases of the Conversion; so that, if these posts were solely expressive of religious belief, it has to be supposed that at some point their symbolism must either have been changed physically or have been modified in significance.

More probably, as the constant association with them of animal-bones (where they are identifiable, remains of sheep or goat) might suggest, what is represented here is a form of totemism involving zoomorphic emblems. The known self-identification of certain Celtic tribes with animals (e.g., the Caereni, the Orci, the Epidii, the Lugi and the Catti) provides some warrant for this conjecture; and, viewed in that speculative light, the implications of the place-name Gefrin ( $\mathrm{p} . \mathrm{r}_{5}$ ) and its remarkable survival appear possibly to transcend mere reference to original natural fauna. 'The Hill of the Goats', that is to say, need not have been a place given special distinction only by (earlier) periodical visits from those notably foot-loose creatures, and could have been the seat of a Celtic tribal group totemically identified with the goat. The Hill of the Goats is presumably Yeavering Bell and the oppidum that crowns it has never ceased to be far and away its most outstanding feature since the end of the prehistoric period. The historical Ad Gefrin, at the foot of Yeavering Bell, was evidently a centre for large assemblies, and some of the instances and arguments adduced by Bruce Dickins ${ }^{247}$ in connexion with the name Gateshead, the ad caprae caput of Bede, may well have bearing on the present issue. H. M. Chadwick's considerations ${ }^{248}$ of the written evidences for connexions between temples, groves, trees and figures made from tree-trunks, are of special interest in this context; and the more since he shows their relationship to great religious and judicial assemblies in northern Europe.

There is, then, a wide range of written testimonies to justify interpretation of the wooden orthostats at Yeavering as objects of symbolic, perhaps even totemic, significance. But - great though the probability appears that the posts there are significant in terms of native tradition, especially in view of the ritual association of native burials with one of them - both the written and the archaeological evidences show that kindred ritual features had their place in Germanic tradition too. The possibility that Anglo-Saxon influences played a part in the shaping of local ritual procedures at Yeavering must now be considered.

At the outset, it must be recognized that pagan Anglo-Saxon burials in Britain frequently make physical reference to earlier burial-places. In particular, there are innumerable instances of the occurrence of Anglo-Saxon inhumations in or faround Bronze-age roundbarrows. It could be argued that the impelling motive was no more than the desire to avoid the heavier work of digging graves into hard, undisturbed subsoil; but, even leaving aside the literary evidences, which include the giving of English names to prehistoric barrows mentioned in charters, there are instances that indicate a more positive Anglo-Saxon attitude to sites of earlier sanctity. An especially relevant example (Fig. I i2) is furnished by the wellknown Barrow C. 38 in the group at Driffield, ${ }^{249}$ Humberside (at no great remove from those Yorkshire cemeteries in which the Anglo-Saxon pottery found at Yeavering is most closely paralleled). There, series of Anglo-Saxon secondary burials, presumably simultaneous, were arranged in radial lines ('in line ahead') proceeding from the original, central burial under


Fig. 112. Barrow C.38, Driffield, Humberside (after Mortimer).
the barrow, much as the enclosed inhumations of the Western Ring-ditch complex were arranged about their focal posts.

That is an obviously, and temptingly, close parallel to the conversion of Yeavering's Bronze-age stone circle into a radially organized inhumation-cemetery. In both cases it is clear that a potent physical focus-point was needed for the fulfilment of religico/ritual intention, and the common availability of a circular prehistoric monument gave rise to the
same expedient. Nevertheless, Driffield's graves were recognizably Anglo-Saxon, Yeavering's native; and it seems no safer to assume that at Yeavering the basic idea is of Anglo-Saxon derivation than it would be to argue that it was of native inspiration at Driffield (although either could conceivably be true). Moreover, there is an important structural contrast between these two instances. The radial burials at Yeavering were laid out within the sheltering, concealing walls of a wooden enclosure or building (the affinities of which will be considered later). There is no sign of such wooden structures at Driffield: there they were either absent or passed unobserved.

This superficial parallelism, then, does not in itself require any assumption of AngloSaxon influence on Yeavering's local funerary practice. While Driffield's C. 38 burials are clearly representative of a small intrusive group of people at an early stage of settlement, geographically divorced from the Mecca of its own particular creed, Yeavering's radial burial-group speaks of a native sect or caste exploiting its own, local, religious past.

Up to this point the argument has been based on what could well be exceptional instances. If there was indeed any change brought about in Yeavering's ritual practice by the force of Anglo-Saxon influence, it is more likely to be visible in the ensuing phase, when at last there is positive indication of Germanic intrusion. That crucial period of Yeavering's history is distinguished, it will be recalled, by a temple that attracted an aggregation of native graves so great as to be more fairly comparable in size with the pagan Anglo-Saxon cemeteries common in other regions of England. Here is the required basis for comparison in terms of institutional organization - but how are subtle differences and correspondences to be detected and assessed when we remain so ignorant of all that must underlie our raped and plundered Anglo-Saxon cemeteries?

Baldwin Brown would surely have been shocked, even more than Leeds perhaps, to discover that our so-called Anglo-Saxon archaeology is today still blinkered by antiquarian preoccupation with grave-goods. Every year we see Anglo-Saxon cemeteries used as convenient quarries to provide raw material for the perpetuation of an habitual and unquestioning academic activity (itself not without a curiously superstitious, ritual aspect). The AngloSaxon cemetery in Britain has never been studied as a complete phenomenon, as the deeply revealing local entity it certainly is. It ought by now to have been recognized as an unwritten form of historical document roughly equivalent (though at once broader in scope and less exact) to the parish register of later times, and investigated as such. Since it has not been so recognized or investigated the present inquiry must be thrown on to needlessly insecure and hypothetical ground.

All that can be offered, after prolonged study of such pathetically inadequate archaeological records as we have, is little better than what is usually called 'an informed guess'. It would seem that Anglo-Saxon cemeteries were organized in terms of nucleated burialpatterns, some of which arose from the presence of earlier 'ritual' monuments. Two procedural varieties appear to be in evidence. In the first, the cemetery grows more or less uniformly outwards from a single, original centre; and this might be called the simple or monocentric form of development. In the second, there is response to a series of focal points, simultaneously or successively; and this must accordingly be called the complex or polycentric system. ${ }^{250}$

Leaving aside all the important questions of cult, caste, historical evolution, and so on,
that naturally arise (these will be considered in more detail in a later publication), it is obvious enough that Anglo-Saxon cemeteries cannot have been laid out altogether at random or concentrated in insignificant places. It would be indeed astonishing to find that they had no reference to greater and lesser centres of religious observance. One of the surviving links between the ancient and modern worlds is the practice of burial in and around temples and shrines. This is in evidence from Stonehenge to Jellinge - and, indeed, from Yeavering to the parish church.

But, it may well be asked in our world of piecemeal and casual archaeological investigation, where are all those pagan Anglo-Saxon shrines and temples whose existence we accept from written testimonies? In the writer's view, at least, the answer to that question is that they await archaeological discovery at the centres of those same Anglo-Saxon cemeteries whose short-sightedly greedy exploitation is one of England's minor shames. That something more than mere speculation is involved may be attested by Fig. II3, where Germanic graves at Lyminge in Kent ${ }^{251}$ are seen unambiguously to have been laid out with respect to preexisting structures which (like Celtic, Romano-Celtic and Icelandic temples - and no less like the timber structure of Yeavering's Western Ring-Ditch complex) are square in plan.


Fig. 113. 'Jutish' graves around square enclosures at Lyminge, Kent.

It would be rash to suggest that the structures at Lyminge were actually major temples, as opposed to minor shrines or mortuary enclosures; but there is nevertheless clearly religious (and archaeological) implication in their intimate association with patently contemporary and deferential graves. These highly significant structures at Lyminge were at first supposed by their excavators to be the foundations of modern pigsties.

Obviously, informed and purposeful inquiry is likely to disclose both major and minor focal points in our Anglo-Saxon cemeteries. At the one extreme, there will be sanctuaries and temples such as literary references lead us to expect (e.g. Bede's story of Coifi at Goodmanham, and the evidence of heathen place-names); and, with Jellinge and Uppsala particularly in mind, it is tempting to wonder whether Sutton Hoo itself - with its Scandinavian connexions and the seemingly purposeful arrangement of its barrows - may not have been the site of a major, pagan sanctuary acknowledged by early East-Anglian royalty. At the other extreme, it is rather more than merely conceivable that the formal basis of the socalled 'polycentric' cemeteries was a series of lesser structures, possibly nothing more than wooden posts set singly or in groups into the ground at various intervals. When the failure of early excavators to recognize even the existence of post-holes on settlement-sites can be shown to have given rise to the persistent fiction that all pagan Anglo-Saxons lived exclusively in squalid slums of Grubenhäuser, is it not all the more likely that equally random and uninformed inquiry has made at least as great a nonsense in our thoughts about the religious and funerary provisions of the very same people ?252

Meanwhile, what is to be made of Yeavering's burials? Bearing in mind that all but one are perfectly acceptable simply as native-British burials, by what criteria are we to judge the question of Anglo-Saxon influence?

Clearly the mere fact of a temple's presence is not in itself enough to justify the conclusion that Anglo-Saxon institutional influence is necessarily involved. Nevertheless, Building $\mathrm{D}_{2}$ is open to suspicion of later conversion to Christian use at the behest of an Anglo-Saxon king's missionary; and, although 'native' in its construction, some features of its plan might be derived from an earlier Anglo-Saxon model. All in all, while there is general indication of Anglo-Saxon political direction and exploitation of earlier native institutions, there is no sign even so that the natives were wholeheartedly won over from one set of pagan beliefs and customs to another by any compelling religious fervour in their new Germanic masters.

In the light of the situation at Lyminge, can the rectangular form of the wooden structure within Yeavering's Western Ring-ditch be safely attributed to Anglo-Saxon influence? Surely not, when Yeavering shows in the plan of its wooden theatre so loyal an adherence to the model provided by a Roman age, which also evolved and multiplied the square image of the Romano-Celtic temple: and less still when the native world of Britain can provide such clearly pre-Roman instances of a square form of temple as Professor Grimes's excavations at Heath Row have revealed.

For the moment, at least, it seems we must accept Yeavering's persistent refusal to furnish its inhumation-graves as the critical point that sets its 'ritual' practice apart from common Anglo-Saxon usage. While it will not be in the least surprising to find that AngloSaxon cemeteries were to some extent organized around free-standing posts and rectangular enclosures, this discussion has failed to disclose any compelling reason for the regarding of Yeavering's ritual procedures as anything other than the indices of securely established
native custom. Whatever the divergences between the Tyne-Tweed and Tweed-Forth regions may have been, study of the relationship between 'Pictish' symbolic stones and their presumably attaching inhumation-cemeteries is likely to show that a fundamentally similar principle of ritual observance was not unknown in the native world north of the Forth.

In the last resort, the grimly determined Anglo-Saxonist might bolster up his case by reference to the admittedly curious patterns formed by the simultaneously dug string-graves. After all, if the appearance of a boat-shaped setting among them could be accepted as meaningful, there would be basis for believing that a garbled form of boat-burial was transmitted even as far as the remote fringe-area of Bernicia. Sutton Hoo demonstrates that the idea of ship-burial was current in the royal East-Anglian milieu of the seventh century; and token boat-graves at Caister-by-Yarmouth, ${ }^{253}$ side by side with boat-shaped settings of stone in Scandinavian cemeteries, ${ }^{254}$ serve to indicate that a wide range of variations on that central theme may indeed be expected. But there is only one beguilingly boat-shaped setting at Yeavering (which enclosed the exceptionally large and furnished Grave BZ) and even that is likely to have been as fortuitous as a child's ink-blot pattern. In the last analysis there is nothing to be remarked save the tendency of the string-graves to produce $V$-patterns that might desperately be likened to the stone settings of the Scandinavian Vis advocated by Dyggve. ${ }^{255}$ All in all, there is nothing more than might geometrically be anticipated of a ritual system that took free-standing posts as the points of origin from which dependent lines of graves must proceed.

If the man buried in Grave BZ really was an Anglo-Saxon, the circumstances of his burial would appear to be symbolic of the whole situation at Yeavering in his time. He lies in the company of natives laid in the ground while the ruins of $A d$ Gefrin's greatest phase were still smouldering. The lines of native burials flank his grave respectfully - almost protectively but his is none the less a lonely figure among the great Celtic majority.

Otherwise there is little or nothing in Yeavering's 'ritual' history that can confidently be called Anglo-Saxon, in any accepted sense of the term. True, there could have been greater 'Anglo-Saxon' participation in the matters at issue than would archacologically appear. The principle of ritual reference to physical datum-points seems to have been in common between Celt and Saxon; and both parties to the making of Ad Gefrin must be assumed to have been capable of recognizing and using earlier monuments - a roundbarrow, say, or a stone circle - as the focus required for their ritual observations. However, the evidence casts Bernicia's early Germanic intruders at best into a surprisingly negative role: could any more potent 'religious' influence have been expected of them?

Unless he comes as a wholly dedicated and purposeful missionary, the intrusive pagan's religious posture is far less assured than that of the barbarian native. Paganism does not travel well. Its cherished gods have their own special places only in the old homeland; and, when that is forsaken, so too must be the accepted centres of their power. If the immigrant remains what we would call 'a religious man' he has to invent or discover new holy places in his adopted land. If he is living cheek by jowl with his borrowed realm's established inhabitants, he may be compelled to seek and share or steal the sanctity of their own local, ancient, ritual centres; but he will in any case be fearfully aware of the need to placate the
genius loci and will expediently make his bob to the indigenous deity by some easy observance of local custom. It is, indeed, in his interest to become party to religious matchmaking; and what begins as a prudent flirtation may hopefully be expected to end in the convenient marriage of two gods.

Yeavering evidently had its own gods long before it knew any Anglo-Saxon immigrant. It had its own ancient monuments of pagan piety, and continued to use them; and it preserved in its own district a substantial, if locally backward, native population. It had, maybe under stress of earlier influence, thrown off the old tradition of cremation; but it remained content to observe a debased Bronze-age formula in the making of its pottery, and could still throw up (or lay down) a stubbornly crouched inhumation-burial. ${ }^{256}$ Even its Great Enclosure, which was the first thing to catch the post-Roman traveller's eye, harked back to pre-Roman tradition.

Ritually, as politically, the history of Yeavering is meaningless unless the place survived as the stronghold of its own native past: a horse (or a goat?) that could by persuasion be led to new waters, but could not be forced to drink. It may have been the most important contribution of what was evidently an Anglo-Saxon minority that it elected for a policy of let-be. Indeed, it is arguable that any Anglo-Saxon gamble for control or exploitation of all that was wrapped up in Yeavering could not hope to succeed by attempt to suppress native mores, even if that was for some reason desirable in itself.

In the last analysis, what cannot be ignored is that Yeavering was continuously a local centre for burial and 'ritual' monuments for a thousand years and more before the 'Ironage' oppidum on Yeavering Bell was built; that it was (secretly, perhaps) used as a burialplace during the Roman occupation; and that again in the early post-Roman era (both before and after the Anglo-Saxon intrusion) it became once more overtly a place for burials and ritual observances. True, strictly from the point of view of its use as a burial-centre, there is a dark period or gap in its history during the fourth and fifth centuries; but it has to be borne in mind that the southern part of the Yeavering whaleback (only a little less promising, when seen from the air, than the northern) has yet to be excavated and may in the end illuminatingly fill the gap. Disregarding that, there is even so the matter of the Great Enclosure. As a 'fort' it is militarily (apart from all else) absurd: as a communal corral it is perhaps acceptable; but it is only when it is regarded as a folk-centre with deeper implications (and so, of course, as a political centre akin to the Scandinavian Thing) that its long archaeological history of structural perpetuation becomes fully, convincingly, understandable and falls into logical perspective.

Religion and politics went hand in hand more intimately in the Dark Ages than they do now (else why did Edwin and Paulinus trek to Yeavering?). In the end, Yeavering was submerged under the tidal wave of the ultimate, truly medieval, revolution; but does it not appear in its heyday to have been a key-point in Bernicia's inner resistance to religious and political change? Hence, presumably, the occasion for survival of its name in the venerable history of the early English church; and hence, too, it would seem, the doggedly native aspect of its free-standing posts and graves.

Archaeologically, Yeavering is likely to be a microcosm of its district's (possibly diversely bred) ritual traditions; but the excavation of even so exceptional a single site may suffer from all the shortcomings of that distasteful expedient popularly known as the trial trench -
it may tell, within its limits, the truth, but its negative aspect may prove in the end to be misleading. The evidences here presented cannot finally be judged until there has been wider and more thorough archaeological investigation of the Dark-age background of northern and western Britain.

## ARCHAEOLOGIGAL SUMMARY AND GONCLUSIONS

Yeavering's archaeological record clearly testifies to the meeting of two major cultural groups, each with diverse strains of influence already within it, at a time probably nearer AD 550 than 600 ; and to the vigorous hybrid culture which that produced.

The native British background to those events is of the utmost importance, and the oppidum on Yeavering Bell appears to be the key to the development of the later situation. Intensively occupied in its time (presumably, by local analogy, beginning very late in the first millennium BC ), and the focus of an extraordinary concentration of native settlements extending into the Roman Iron Age, it is in its magnitude unique in Northumberland and must have been a local or regional centre. Its present exceptionally ruinous condition might be witness to Roman slighting late in the first century, and the few objects of later date found within it - some scraps of samian ware and two late-Roman coins - cannot in any case be thought to denote more than desultory, small-scale use or occupation of its interior during the second, third and fourth centuries. Two small, roughly rectangular, drystone foundations, overlying the remains of earlier, circular huts but still yielding 'native' pottery, are probably representative of a development in native culture known to begin elsewhere in the latter half of the Roman Iron Age. It seems likely that, during or soon after the Roman Iron Age, some part of the function earlier associated with the oppidum had been transferred to the lowland site which emerges historically in the seventh century bearing its name.

The site of Ad Gefrin itself had a long earlier history. At latest from the outset of the second millennium вс onwards it had attracted cremation-burials, 'ritual' pits, a burial-mound and a stone circle. The main series of urned cremations may have come to an end before the first century BC, but there is indication that unurned cremation continued for some time. Among a number of shallow, unurned cremation-burials on the site, only one was accompanied by an artifact; and that, a bead that finds its best analogues in the Roman period, was set in place after the whole site had been laid down to the plough. While the circumstances perhaps suggest that the 'Celtic' fields at Yeavering are more likely to have been laid out during the lifetime of the oppidum than subsequently, there can be no certainty in the matter. Air-photographs show the fieldway to have led to an area disturbed by occupation, on a knoll at the west end of the whaleback, but it was not possible with the limited funds available for excavation to investigate this settlement (the remains of which had been severely damaged, if not destroyed, by recent ploughing).

After the fields had been abandoned, the wooden, fort-like structure called here the Great Enclosure became for some time the dominant feature of the site and the earlier barrow was included within its palisades (the stone circle, at the other end of the whaleback, was :soon dismantled and replaced by wooden structures that served to attract and house
inhumation-burials). That enclosure is the vital link between the 'sub-Romano-British' and 'Anglo-Saxon' chapters of Yeavering's history. During what was obviously its long existence, it was rebuilt at least four or five times. In all its early forms it is completely in harmony with the palisade-works that are accepted as one of the characteristic features of the pre-Roman, native world, and it appears to have been a wholly native institution. Even at the last, when the finest building of the 'Anglo-Saxon' township's most ambitious phase stood beside it, its plan was such as still to link it with the (presumably) immediately pre-Roman enclosure at Harehope in Peeblesshire; and the great foundation-trenches in which it was then emplaced are different only in degree from what had gone before. Here, in all respects, is evidence of continuity, from a period in which native traditions were subject only to marginal Roman influences to one in which Germanic intrusion is evident and declared. Nevertheless, although the time of the final destruction of this work can be set with a high degree of probability about 633 (as will be seen from the next section of this book) it is impossible at present to arrive at the absolute date of its beginning. All that can be said is that any suggestion of a date later than 500 would be exceedingly unlikely; and that although the period of greatest probability seems to lie somewhere in the fourth or fifth century, the possibility of a still earlier origin is not by any means to be dismissed.

At some point within the life-span of the palisaded enclosure, small buildings of rectangular plan were put up outside it. At first they were based in separate post-holes (and the fact of their discovery in that form tends to underline the barrenness of the excavated areas within the palisades). Since only 'native' pottery was associated with them, and they do not offer any response in form or scale to known Anglo-Saxon structures, it must be presumed that they were indeed wholly native buildings and that their rectangularity derives directly or indirectly from a Roman or Romano-British model. Those buildings were succeeded by others, of the same plan and dimensions, which were trench-built. Again, there is no sign of any but native British artifacts; and, in materials and technique, these cottage-like structures might be thought of as minuscule versions of early-Roman trench-built timber buildings known to have existed in or on the borders of the same region. That, perhaps, is an argument in favour of an earlier dating than caution has allowed here; but it is not inconceivable that the effectiveness of the Roman mode in question was prolonged indefinitely by its early incorporation in the native repertoire. Moreover it is as likely as not that from the time when native builders first began to adopt the rectangular form, use of one constructional technique or another was simply a matter of choice. Only if it were clear that the building to be put up would be needed for a long time, perhaps, would it be trench-built. Thus the difference between A6 and $\mathrm{A}_{5}$ at Yeavering need not mark an actual moment of technical transition: it could be explained as a recognition of the need to give some buildings, as institutions, more robust, more permanent or more pretentious form than others.

Everything in the history of Yeavering up to and including these small, trench-founded buildings, which represent the first phase in the long sequence of rectangular buildings on the site, speaks of a Celtic world lightly touched perhaps by the hand of Rome but as yet quite unaffected by Anglo-Saxon ways. The buildings of Phase II, however, show a new situation. The halls $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$ are soon accompanied by a Grubenhaus, oddly unorthodox but nevertheless as clear a mark of cultural intrusion as the wide-mouthed Anglo-Saxon bowl found in $\mathrm{D}_{\mathrm{I}}$. All these buildings are laid out to a common ground-plan, which has a combination of
characteristics best paralleled in the Roman Iron Age on the Continental mainland west of the Weser. The structural resemblances between the farmhouses at Warendorf and the earlier royal halls at Yeavering, and their common association with Grubenhäuser, further justify the inference that the prototype of the plan in evidence at Yeavering may have resulted from earlier Anglo-Saxon movements into Frisia. For want of a better term, the prototypical plan has here been dubbed 'Saxo-Frisian' without prejudice to the possibility of a specifically Anglian contribution, in the attempt to locate any Germanic sources.

Nevertheless, although the ground-plans of the buildings of Phase II at Yeavering may possibly show the influence of an Anglo-Saxon or a 'Saxo-Frisian' model, it is clearly apparent that they and their hypothetical prototype are constructionally antithetical. In all the relevant Continental buildings there is no parallel to that development of the wall as a solid, load-bearing structure which is the most striking feature of $\mathrm{D}_{1}, \mathrm{D}_{2}$ and their successors at Yeavering. Again, the presence of centre-posts in $D_{1}$ and $D_{2}$ tends to set them apart from the 'pure' three-aisled buildings of the early Germanic world. In the last analysis it is mainly the continued development of inclined outer posts as buttresses in both cases that sustains the indirect link between Yeavering and Warendorf, both of which are in turn related by the same feature to Ezinge and Einswarden.

Only at Milfield nearby, and perhaps at Iona, is the construction of solid walls in foundation-trenches known elsewhere in Europe at any closely relevant time. The outlines of the halls of Phases II and III at Yeavering may indeed have been set out according to Saxo-Frisian instructions, but the further conclusion that their execution was entrusted to native craftsmen, or benefited at least from native expertise in palisade-construction, is inescapable. It must be observed, moreover, that the palisade-type walls of $\mathrm{D}_{1}$ and $\mathrm{D}_{2}$ are nearer to the putatively formative tradition represented by Yeavering's Great Enclosure than is the post-and-panel construction of $\mathrm{A}_{5}$ and D6. The difference is perhaps again reflective merely of the higher status of the later buildings; and it would not be surprising to find that initially the solid type of wall had been used experimentally in the construction of houses or halls for native British aristocrats, some time before Anglo-Saxon influence became effective in northern Britain. Certainly the process of evolution that is in question was at the very least accelerated and formalized to suit the needs and wishes of Anglo-Saxon leaders; but it was a British tradition that supplied its fundamental technique, and it should not be overlooked that this was an age of British political and artistic resurgence in the north and west. It is scarcely conceivable that the aristocratic Romanized levels of British society that produced the inscribed memorial stones of the north and west were unwilling or unable to build large rectangular halls. ${ }^{257}$ Altogether, indeed, it seems probable that the archaeological record at Yeavering shows us merely an intermittent series of local glimpses of a strong and steady cultural development that had begun by the fourth or fifth century to be effective in the Bernician coastlands. Awareness of and respect for Roman precedent is apparent in the form of the Yeavering assembly-structure or 'theatre'; and it is likely that both the British and their Anglo-Saxon lords had reason to know and copy certain aspects of the earlier Roman pattern. The long preoccupation with solid, load-bearing, wooden walls at Yeavering is most likely to have been occasioned by familiarity with the stable structures of mortared stone that still survived on the frontier of Roman Britain. Whether or not that is the whole of the matter, the most extreme development of Yeavering-style in Phase IIIC is certainly
the end-product of calculated ambition, and is an unquestionably insular achievement which brings timber building as near as could be to the masonry tradition. It shows, too, a regard for systematic procedure and geometrical precision that in itself is not un-roman. In turning aside from the issue of romanization, we may pause to notice that an object buried in a grave at the threshold of the great hall $\mathrm{A}_{4}$ somewhat resembles a Roman groma, and that it appears to have been 'ritually' involved in an alignment of halls and graves on a freestanding post.

Other free-standing posts (presumably emblematic, and possibly totemic) evidently served important 'ritual' purposes both before and during the 'Anglo-Saxon' phase of Yeavering's development. One stood behind the orator's platform of the assembly-structure. The largest example of all stood beside Building $\mathrm{D}_{2}$, where lesser posts within an enclosure appear to have been the focal point of a large inhumation cemetery. D2, superseding an earlier centre with similar inhumation-burials, clearly must have been a building of religious significance. Its extended, unfurnished burials were such as to be acceptable in a Christian context; but their associations, both contemporary and earlier, indicate that some at least must have been laid down while Yeavering was still overtly pagan in its spiritual loyalties. Little is known of the burial-customs of North Britain between the last centuries bc and the beginning of the post-Roman period; but it is likely that meanwhile there was a 'native' swing to extended inhumation, although unurned cremation and crouched inhumation will have died hard in some localities and among the most self-contained groups. There is, at all events, only one grave at Yeavering to which any reasonably strong suspicion of AngloSaxon identity can attach. All the rest were the graves of natives, and the evidence hardly allows the inhuming mode of burial locally prevailing to be seen as a Germanic innovation.

Total and deliberate destruction of the township by fire brought Phase III and its own particular form of architectural development to an end. The Great Enclosure was devastated like all else. A weak enclosure bounded by a single, shallow-founded palisade was then made within it, but (if it was ever finished) it was extremely short-lived: at most it can have been no more than a hasty, defensive expedient, and might be supposed to have served merely for the gathering together of the scattered remnants of a herd or the last-ditch stand of a few human defenders. It was at all events quickly removed, while the burnt debris from the earlier structures lay fresh and unweathered on the ground; and in one area curious rows of graves were laid out across the lines of all the earlier palisades, with evident reference to the grave at the door of Building $\mathrm{A}_{4}$ and its alignment with the free-standing Post BX. Like the burials around $D_{2}$, these, with the one possible exception noticed above, were native graves. The exceptional grave had held the clothed body of a relatively tall man, and his belt-fittings form the biggest group of personal possessions in any grave at Yeavering. It is possible that he was a man of Anglo-Saxon blood; but his belongings are obviously not in themselves an infallible guide. His grave seems to have had a respected place among the others, as though he had been a man of special character or status - an official, perhaps - but only his height suggests that he may actually have been of Anglo-Saxon blood. Nearly all the other graves of this phase are laid out in rows or strings, and most of them are certainly simultaneous. It cannot be supposed that the obvious emergency suddenly produced the invention of a ritual procedure previously unknown in Bernicia. What is involved is surely no more than hurried improvisation on the ritual theme current (in the Western Ring-ditch

Complex) before Building D2 was put up; and it has been shown that the people buried must have been Yeavering's own native dead. Hence both the resemblances and the differences between Yeavering's string-graves and the long-cist cemeteries of the Lothians must be significant; and they seem to be best explained on the hypothesis of separate and divergent developments from a form of practice originally in common between the Tyne-Tweed and Tweed-Forth regions of the Tyne--Forth province.

The string-graves are overlain by the fenced cemetery of what is patently a Christian church. Its northern boundary still observes the significance locally attached to Post BX, but an institutional change is clearly apparent. That is but one of the features of Phase IV which are indicative of a new turn in Bernician affairs. In the rebuilding of the township, the threeaisled plan has been rejected in favour of another, structurally developed on the principle of a directly supported ridge-piece; whereas Phase III had discarded this principle and exploited the paired roof-posts of the three-aisled form. At the same time, in its constructional technique and its system of mensuration, the architectural practice of Phase IV is clearly related to that of Phase III, and it is evident that what is involved is at base simply a divergent development from the primary form seen in Phase II. Accordingly the buildings of Phase IV are regarded as having been the result of independent development, in another region, of the 'Anglo-British' hall typical of Phase II at Yeavering. The 'annexes' at the ends of some of the Phase IV halls are structurally and functionally somewhat akin to the partitioned antechambers seen in Phase III; but this variation in form may be due to early Christian influences exerted in whatever other region is involved. Trench-built structures on Iona encourage the view that the idiosyncrasies of the Phase IV buildings are probably the result of development within the range of influences transmitted by the early Irish church.

The beginning of Yeavering's decline is demonstrated by the abandonment of three of its buildings (one of which is the assembly-structure) in Phase IV. A second destruction, which again appears not to have been accidental, is followed by the rebuilding of a few of the structures that had been maintained until that time. Plank-construction involving the use of clinch-nails now appears. It is of some interest in that it seems to show the effect of shipbuilding techniques; but it would seem as likely to be revealing of the township's reduced status as of any new external influence. Phase V is in fact the last chapter of Yeavering's history: its buildings were in use until some time after $64^{\circ}$ (as is indicated by the dating of a Merovingian gold coin), and thereafter they were left to rot.

Yeavering-style building may well have been a response to the special political needs and pretensions of a ruling class. Doubtless it was part of the function of its most ambitious works to be impressive. There is an air of ceremonious formality about the 'theatre' and the great hall $\mathrm{A}_{4}$ in particular; a suggestion that, could we but see them as they were, they would be found not to have been without various enrichments and a certain crude pomp. The great width of the door-posts in $\mathrm{A}_{4}$, for instance, is out of all proportion to the structural need, and is likely to have been provided to give a field for carved decoration. These buildings are perhaps to the ordinary run of barbarian structures somewhat as the Sutton Hoo whetstone is to
the workaday hone of its time. Yeavering-style was at all events a bold and ostentatious form of building. It was extravagant, almost prodigal, in its use of timber, requiring for its sustenance the clearance of whole forests, and it was a luxury that must have grown increasingly difficult to maintain. Invention of the 'up-and-down' technique that became characteristic in the wall-construction of its mature phases was mothered, presumably, by the need to cut down the number of long timbers previously required; and although the progressive reduction in the thickness of the walls put up, as one phase succeeded another, may have been due to more refined appreciation of purely structural needs, it too had an economizing effect.

Altogether this is not a style which is likely to have had lasting structural effects on folkbuilding, useful though it was to church and state; and the reintroduction of masonry techniques must further have restricted the range of its possible consequences in Northumbria. Thereafter, nevertheless, it must still have had obvious merits as a good second-best expedient, where for one reason or another the official establishment was unable or disinclined to build in stone. There is a possibility that Yeavering-style was not without later issue. Although our knowledge of the remains at Milfield and Iona is fragmentary, it is practically certain that they are witnesses to continued royal and ecclesiastical use of trenchbuilt wooden structures into the eighth century in England and Scotland. In England trench-built timber halls are known from circa 800 up to the eleventh century on a royal site at Old Windsor, in Berkshire (whose excavation is the subject of a report now being prepared by the writer) ; and circa 900 on another palace site at Cheddar; ${ }^{258}$ and a kindred trenchbuilt structure not later than the beginning of the eleventh century has been found to have preceded the timber church, based on a wooden ground-sill, of which some elements still survive today at Greensted in Essex. ${ }^{259}$ On such evidence as is available at the present time there seems to be no simple alternative to the hypothesis that all these structures are branches from the same family tree, and the idea is by no means inconsistent with the historical course of events. Northumbrian temporal and ecclesiastical power in the seventh and eighth centuries is acknowledged to have resulted in wide diffusion of artistic ideas. Such part of that story as we know is told by surviving pieces of metalwork and by manuscripts; but is it to be supposed that the cultural tide did not bear along with it other ideas expressed in less durable media? Just as the art of Kent impressed East Anglia, may not Northumbrian timber building have left a lasting mark on the practice of other regions during the period of Northumbrian supremacy?

There is a possibility that its influence penetrated further still, into Scandinavia. The Vikings who ravaged Lindisfarne and Iona may have set fire to sturdy buildings of the Yeavering-type (destruction and analysis are not antithetical, as most excavating archaeologists know), and settlers in the Danelaw were more directly exposed to the strength of English tradition. In the tenth and eleventh centuries, particularly, a process of amalgamation between English and Scandinavian building styles is to be seen in southern and eastern England, and the likelihood that there were reciprocal effects in Scandinavia seems to be borne out by the evidence. In this age of Anglo-Scandinavian rapprochement, in terms of both church and state, wooden buildings with solid, trench-built shells appear in Scandinavia. The walls of the houses in the Viking fortress at Trelleborg were thought, long before Yeavering was discovered, to have been constructed in a fashion akin to the 'up-and-down' technique now shown earlier to have been a characteristic feature of mature Yeavering-
style. ${ }^{260}$ Recent investigation of another of the great Viking fortresses, at Fyrkat, ${ }^{261}$ has made it clear, moreover, that the posts outside the walls of the Trelleborg houses must be interpreted as inclined buttresses of the kind typical of Yeavering. The 'boat-shaped' ground-plan exploited at Trelleborg, Fyrkat and Aggersborg262 is certainly not of English origin, and all shows it to have been in the main a Scandinavian speciality in historic times; ${ }^{263}$ but N $\phi$ rlund may not have been altogether wrong, nevertheless, in looking to England for the source of Trelleborg's building-style. ${ }^{264} \mathrm{He}$ supposed that the 'hog-back' gravestones of England explained the origin of the 'boat-shaped' type of house; whereas it is now plain that, although the house-shaped stone monument must indeed be regarded as an insular phenomenon, the boat-shaped examples are relatively late and merely reflect the introduction of a Scandinavian building-plan into England. ${ }^{265}$ If English influence played any part in the evolution of Trelleborg's sophisticated structures, as seems on the whole more likely than not, what was communicated to Scandinavia in this instance was not a ground-plan but a constructional technique. A sort of murus Britannicus, that is to say, may indirectly link Trelleborg with Yeavering, and alongside it perhaps is that regard for geometry and precise measurement in quasi-Roman feet which also is in common between the two sites, divided though they are in time and space.

Trelleborg in itself gives only a slight and uncertain hint of an English contribution to the building practice associated with royal and military power in southern Scandinavia. Thus far it seems there is little enough to offset the unambiguous tokens of Scandinavian influence in England - the boat-shaped buildings at Thetford, Cheddar and Buckden, echoed by the hog-backed type of gravestone, a host of works of art showing the effects of Scandinavian decorative fashion, and so on. The reciprocal impulses are most clearly to be seen, however, in the ecclesiastical context; and, as in other times and places, the activities of Christian missionaries exposed Scandinavia to more than purely religious influences. Scandinavia was the last bastion of prehistoric Europe, and England - half in, half out of the northern barbarian fringe - was naturally in post-Roman times an important intermediary in the process of conversion that brought western currents into Viking waters. Institutional and architectural correspondences between the Scandinavian and the English church from the eleventh century onward vouch for the general trend of events in the period in question. English missionaries in Scandinavia naturally established there such forms as were familiar to them in England. The building of churches was among their cares, and, as their work centred mainly in the soft lands that were the underbelly of the pagan territory, many of these structures were initially made of wood. Thus it seems significant that the earliest Christian church known in Sweden is a trench-built structure with solid wooden walls, composed of vertical timbers, the remains of which were found under the later building of Ste Maria Minor in Lund. ${ }^{266}$ Its structural idiom is in no important respect different from that of the first church at Greensted or the minor royal halls of the ninth to the eleventh centuries at Old Windsor; and all invite comparison with the seventh-century royal buildings at Yeavering. The idea that the ultimate consequence of Yeavering-style was the beginning of the special development of stave-construction in Scandinavia is one that seems at least to merit further investigation.

To sum up, solid-walled, trench-built wooden structures seem to be specially associated with the official needs of church or state wherever they occur in northern Europe during the
second half of the first millennium, and at present Yeavering offers the earliest relevant example of the form that is known.

It is not, of course, beyond the bounds of possibility that a kindred form of building technique existed similarly to serve exalted barbarians at an even earlier time. In dealing with the barbarian societies of the north, archaeology is seldom able to make contact with their most influential upper classes save through their graves and the works of art induced by their patronage; whereas it keeps close touch with the domesticities of peasants through their settlement-sites. Consequently the conclusions reached here have necessarily to rest on the assumption that the known evidence is fairly representative of the cultural situation in which Yeavering-style was evolved. Much would have to be reconsidered if ever the solid, trenchbuilt type of timber wall was found to be a feature, for instance, of aristocratic dwellings on the German side of the Limes in the fourth or fifth century. There, too, were romanizing tendencies. But, even so, it is unlikely that any new revelations from that quarter will be totally disconcerting. Even if the Germanic world could suddenly offer a novel and perfect parallel to such a building as Yeavering's $D_{1}$, the successive advances in form and technique achieved in $\mathrm{A}_{2}, \mathrm{~A}_{4}$ and $\mathrm{A}_{3}$ could nevertheless be explained only in terms of insular development; and the strongly Celtic aspects of $A d$ Gefrin's environment and associations would remain highly significant. As matters stand, it would not be surprising to discover that trench-built, halllike structures were known to the British rulers of the Tyne-Forth province before Di was built at Yeavering, and that the main Anglo-Saxon contribution was in the last analysis a buttressing of native tradition. ${ }^{267}$

However that may be, it is not the least consequence of the excavations at Yeavering that a distinctive Anglo-British culture can more assuredly be recognized as the immediate result of Anglo-Saxon intrusion into the Tyne-Tweed region. The remains of Ad Gefrin are clearly expressive of a state of affairs in which Anglo-Saxon rule stimulated and gave direction to an existing British community. Nowhere is there the slightest sign that the Yeavering district - or for that matter Bernicia - ever saw more than an Anglo-Saxon minority. That is not to say that the Anglo-Saxon element was weak in a political sense, for plainly it was able to provoke the demonstration of all that is most memorable at Yeavering. There it subscribed to a culture different from that known before in either the Anglo-Saxon or the Celtic world. In the broadest view it appears the most potently formative factor was the general situation in which both Britons and Anglo-Saxons found themselves. Both must have been aware, negatively, of the political vacuum left by the withdrawal of Rome; and, positively, of the pattern to which its successors had in some degree to conform. For centuries the central fact of life in Britain had been Roman military, political and cultural domination, and that must have had its effects even on the people beyond the frontiers. When, in the end, what had been a fact became a potent memory, standing Roman monuments remained to keep the Roman model fresh in men's minds. Wherever they looked, there was but this one example to follow; and doubtless they were capable of recognizing the highest when they saw it. As the heirs and usurpers of Rome in Britain picked up the fragments of power, they cannot have been utterly unaware either of the unparalleled achievements of the former age or of the vast anticlimax of their own. There is much to suggest that some at least of the new
rulers, British and Anglo-Saxon alike, measured their own stature against a Roman standard. They developed their own resources and traditions, at all events, in a formative context that gave incentive and scope both for innovation and imitation. Both are in evidence at Yeavering, and the Roman aspect of its 'theatre' in particular shows that there the concept of a Roman legacy is something more than an idle speculation. ${ }^{268}$ The 'theatre' seems truly in all respects to be the key feature of the Yeavering township, and it goes far to justify the independent suspicion that other features there are expressive in their different ways of earlier and more direct Roman influence.

History and archaeology agree in showing certain British and Germanic tribes to have been Roman allies and agents in various ways and places, during the fourth and fifth centuries. Chapter 6 of this book attempts to explore the cause and nature of the AngloBritish relationship in Bernicia; and here it is enough to acknowledge that, in their past subservience and later responsiveness to the pattern imposed by Rome, the Celts and Germans of the northern barbarian fringe could have found the basis for community when they met - and when they chose. The idea of a hybrid Anglo-Celtic culture with Roman undertones, developed on the common frontier of Roman Britain and Anglo-Saxon England, will not be startling to archaeologists. It may nevertheless seem outrageous to those who have special vested interests in the arts and words of either Celts or Saxons. They, perhaps, will think it small matter that the buildings and pottery of Yeavering were of this kind or that; and so it is to their notice particularly that one further circumstance must be drawn. During the second half of the seventh century, it was within that very same area of hypothetically Anglo-Celtic culture that Britain's most dazzling examples of early and undoubtedly AngloCeltic art were produced. The Lindisfarne scriptorium lay but fifteen miles, as the crow flies, from the villa regalis at Yeavering, and closer still to Bamburgh - from which, it must be concluded, the progressive, aristocratic elements of Yeavering's culture directly derived. Can that conjunction in time and place be wholly meaningless? It seems far more reasonable, more economical, to suspect that the parallel phenomena are not altogether unrelated: that the surviving products of Lindisfarne owe something to the long-established AngloBritish culture of its immediate milieu. In both cases, whatever the difference in kind and scale, there is extraordinary regard for precise geometrical settings-out; and both at Yeavering and in the Lindisfarne Gospels there is evidence of the use of compass-like apparatus to that end. ${ }^{269}$

Figs. 73-9 summarize the archaeological interpretation of the stratigraphical evidence at reavering demonstrated above. Facilities for carbon-datings were not available, but even so five chronological points emerge reasonably clearly. (I) The fieldsystem was still in use at a late stage in the local Roman Iron Age; but (2) the development of the Great Enclosure destroyed by fire in Phase IIIC took place in a period when 'Roman' trade-objects were no longer in common use. (3) The first sign of Germanic intrusion is stratigraphically associated with a building of Phase II. (4) Engineers and historians, besides archaeologists, weill require the events and evolutions of Phases IIIAB and IIIC to occupy a not inconsiderable time-span. (5) The coin associated with a building of Yeavering's last phase demonstrates that the site was still in use in the middle of the seventh century.

Sixthly, if Yeavering was Bede's Ad Gefrin, historical dates can hardly be ignored. Some correlation between belowground fossils and lingering above-ground testimonies must be attempted, however crudely.

## GHAPTER SIX

## THE HISTORICAL SIGNIFICANCE OF YEAVERING

The archaeological and topographical evidences combine with the place-name to identify the Yeavering township as the historical $A d$ Gefrin. ${ }^{270}$ Acceptance of the identification not only allows the Milfield settlement to be recognized as Maelmin, ${ }^{271}$ but also makes it possible to view the archaeological evidences against a broader historical background.

This section will first attempt such a correlation as may serve to set the phases and events at Yeavering into a context of absolute dates and historical personages. From that basis it will proceed, on the one hand, to examine some points at which the archaeological evidence takes on particular meaning in the light of history: and, on the other, to indicate those aspects of history that are illustrated or illuminated by the new material.

Though the history of Anglo-Saxon kingship in Bernicia nominally begins with the accession of Ida, at Bamburgh in $547,{ }^{272}$ it is generally supposed that Anglo-Saxon power did not extend effectively over any considerable area until about $600 .{ }^{273}$ It will be argued, at a later stage, that the natives of Bernicia actually acknowledged Anglo-Saxon leadership in Ida's time or earlier; but it is the writer's first duty to appraise the significance of $A d$ Gefrin in terms of the currently accepted view of early Bernician history, which sees the halfcentury following 547 as a period of warfare in which the natives strove to beat off invading English forces. For the moment, accordingly, the absolute chronology of the township's development will be measured with the yardstick of historical orthodoxy.

In the conventional view, the confidence displayed at Yeavering, by the placing outside the great, palisaded enclosure of large and inflammable royal buildings that could readily have been set within it, would scarcely seem to have convincing context much - if at all before the beginning of the seventh century. The wide extent of Aethelfrith's conquests of British territory at about that time is especially remarked by Bede, and the defeat of the Scots in 603, at Degsastan, was clearly a critical point in Bernician history. ${ }^{274}$ The annexation of Deira, $c .605$, is implied by the Historia Brittonum. ${ }^{275}$ So, in the context of orthodoxy, it is only from that time onward that such confidence seems credible.

Thus, unless the modern reading of the early historical evidences is mistaken, Phases IIIIIAB at Yeavering are most plausibly to be attributed to Aethelfrith of the Bernician dynasty; and with particular probability to the period $c .605-6$ I6. It must be said, even at this point, that so late a beginning requires the archaeological chronology of the site to be compressed to a disturbing degree, and the probability that Phase II actually began about half a century earlier will be shown in due course. At the moment, however, it is more important to notice that there is such complete agreement between the historical and archaeological testimonies from the end of Phase IIIAB onward as to justify the conclusion
that the great hall $\mathrm{A}_{2}$, the assembly-structure, the refurbished temple, and related structures, stood during the reign of Aethelfrith.

Phase IIIC, marking an impressive expansion of the township, appears in all respects most convincingly to reflect the power and order of the Deiran Edwin's reign; ${ }^{276}$ and its buildings will be those that Paulinus saw when he came to Yeavering in $627 .{ }^{277}$ The destruction of the township by fire at the end of Phase IIIC will, in turn, correspond with the ravaging of Northumbria by Penda and Cadwallon in $632-33,{ }^{278}$ recalling the burning of Campodunum by the same 'pagans'. ${ }^{279}$

The interval suspected (on archaeological grounds) then to have ensued can, in this context, have been literally an interregnum; and the same that Bede deplored for its apostasy. ${ }^{280}$ Phase IV - its building-form divergently developed elsewhere, from Yeaveringstyle II - will consequently mark the return of Oswald, of the Bernician line, from exile among the northern peoples. It is at this point that change is most to be expected, not least from the various influences introduced with the Irish church. ${ }^{281}$

The second destruction of the township may follow as the result of Penda's burning and pillaging in the district in 65 I. ${ }^{282}$ A slightly later occasion would be possible if Bede's account of the destruction of Aidan's church by Penda's forces, 'some years after' Aidan's death, ${ }^{283}$ is authentic. The latest possible date for that event as an incident in Penda's 'intolerable irruptions'284 would be 655 , the year of Penda's death.

Phase V, then, may be thought to have begun between 651 and 655 . It is allowed by the evidence of the gold tremissis to have lasted until some unknown time after 640. The vagueness of Bede's statement that Yeavering was 'abandoned under later kings' (i.e., later than Edwin), in favour of Maelmin, seems to suggest that this event took place considerably before 73 I , when he wrote. It is probably not fortuitous that during this final archaeological phase, which is remarkable for diminution of the township, in every sense, lands probably marching with the western boundaries of its estate are said to have passed from Oswy to the see of Lindisfarne. ${ }^{285}$ This event, which would accord well with the vow to benefit the church made by Oswy in $655,,^{286}$ obviously could not in any case have taken place later than 670 , when Oswy died. ${ }^{287}$ However, although we know Ad Gefrin itself then to have been conspicuously in decline, the actual moment of its final abandonment cannot be determined. Indeed there may not have been a precise moment, and it is better to think in terms of a lengthy process of devolution. With due allowance for the series of repairs to the comparatively flimsy final buildings, their natural lifetime is likely to have been at or near its end by 685 , when Ecgfrith's defeat by the Picts was evidently the occasion of extensive reorganization. At that time, says Bede, ${ }^{288}$ 'Aldfrith nobly retrieved the ruined state of the kingdom, but within narrower bounds'.

The foregoing demonstrates a long series of correspondences between events recorded in history and the physical results of human activity on the site of Ad Gefrin. These correspondences in general may be accepted as being authentic, especially as the hypothesis is strengthened overall by the further response of various features of the archaeological material to their suggested context.

For example, the curious features associated with Building D2 become capable of explanation on that historical basis. This building, which appears from the presence of burials about it to have been of religious significance, is now presented as a structure that
was standing when Paulinus visited the site. It would then already have been 'rebuilt' by a strange procedure of encasement, indicative of concern for unbroken retention of its function and site. Since Paulinus came to Yeavering to convert a pagan district to Christianity, it follows that any existing building there and then devoted to religion was in the eyes of the Roman church a heathen temple.

That Building D2 survived to be destroyed with the rest of the township seems at first to deny this interpretation; but in fact it is that circumstance which lends it particular force. For we have the detailed contents of a letter of instruction from Pope Gregory to Mellitus, ${ }^{289}$ in which it is laid down as a matter of convenient policy that wherever possible the temples of the heathen were not to be destroyed, but converted to Christian use. The sacrifices of oxen to which the former pagans were accustomed might also be allowed to continue, at special times of festival; but in those cases where the church had been a heathen temple, the people should build around it, for this purpose, huts made of the boughs of trees.

Thus, Gregory's letter gives the strongest grounds for believing that a temple such as is postulated at Yeavering would have been put to Christian use by Paulinus. It is a coincidence too remarkable to be dismissed lightly that Building $\mathrm{D}_{2}$ alone, of all the buildings at Yeavering, should have had a succession of short-lived, flimsy shacks put up beside it - veritably huts made of the boughs of trees. Moreover, the stacked deposits of ox-skulls (Appendix I) suggestive of periodical feasts, pagan or Christian, the three post-holes from which apparently non-structural posts had been withdrawn at some time before the building's destruction, and the continued development of the Western Cemetery, all fall into context on the hypothesis that Building $\mathrm{D}_{2}$ was a heathen temple made over to Christianity. Paulinus's purpose required no break with the locally traditional burial-rite: the earlier and presumably pagan burial-centre focused on the Western Ring-ditch shows that the extended, unfurnished mode of inhumation had been adopted well before Edwin's day. The sheer number of its graves hardly allows the Western Cemetery to have been wholly the product of those few years that elapsed between the arrival of Paulinus and the death of Edwin. Altogether, archaeologically and historically, it is unlikely that the imported evangelist did more than give a briefly and superficially Christian aspect to Yeavering's pre-existing institutions. Whatever its precise date, the archaically pagan burial, outwardly conforming to the rest in its association with Building $\mathrm{D}_{2}$, is probably an apt symbol of the region's dogged conservatism in the face of new ideas and masters.

Various other features of the site further justify the view that Paulinus found Ad Gefrin a centre of vigorous, native paganism. The ritual burial at the door of what is assumed to have been the major hall of Edwin's time is a case in point, and the unified alignment of buildings and graves on a wooden orthostat set up on an earlier barrow is hardly to be interpreted in terms of Christian orthodoxy. The speed and completeness of the relapse from Christianity after Edwin's death, as it appears in the historical record, could be thought to imply that the fervour of those who are said to have flocked to hear Paulinus was in part, at least, a matter of expediency; and it is only against the background of reversion to earlier pagan beliefs that the location and disposition of the string-graves can in any way be explained.

The siting of the Christian church of Phase IV (almost certainly Oswald's) is of special interest in this connexion. It was laid beside the prehistoric barrow which had attracted the
post-Edwinian string-graves; and the northern fence of its enclosure observed the curious alignment of the earlier buildings and inhumations, while taking in the site of the wooden post that had long stood at the apparent centre of the barrow. Paganism, then, can hardly have been dead? And looking back over the two millennia and more during which Yeavering had already been used as a burial-place (the possibility of a lapse during the last centuries before Christ is discussed in Appendix III), it seems likely that the place stood especially distinguished in 'native' eyes for its association with pagan beliefs and observances. Clearly, however, the royal township of its Northumbrian swan-song was built to serve other purposes besides.

It is to be supposed that $A d$ Gefrin fulfilled in general respects the customary function of a royal estate, and that the king resorted to it with his entourage only in the course of such progresses as Bede illustrates. ${ }^{299}$ At other times the township would presumably be left in the charge of a reeve or praefectus; ${ }^{291}$ and the halls set aside for the accommodation of the king and his company probably remained unoccupied more often than not. The notable rarity of occupation-material in the greater halls at Yeavering is at least consistent with this probability; and though it might be ascribed wholly to careful 'sweeping-and-airing', the circumstance tends in any case further to distinguish these buildings from the rest.

Later evidence shows that an Anglo-Saxon king's visits to his estates were at times occasioned by, or themselves occasioned, the holding of councils. ${ }^{292}$ Such permanent and elaborate provision for assemblies as is represented by the theatre-like Building E must indicate that $A d$ Gefrin was a recognized administrative centre, regularly the scene, for several decades at least, of formal proceedings.

Yeavering can never have been a comfortable site for open-air meetings. It is not wholly frivolous to suppose that inclement weather must at times have reduced their frequency and duration to a formal minimum. They are likely, in any case, to have been geared to the seasonal rhythm of the farmer's year, which underlies the ancient European traditions of spring and autumn festivals and gatherings. It is improbable, then, that the Yeavering assembly-structure was the scene of prolonged deliberations at all times of the year. The plan of the structure potentially focused the attention of a remarkably large concourse on - as it would seem - one man, in a seat of authority and probably also of judgement. Its form, like its open-air setting, is somewhat discouraging to thoughts of free and protracted discussions on a basis of Stubbsian democracy. Rather is it suited to promulgation, to the multitude, of decisions made by a more select body, previously and under cover. The voice of the people may have been heard (indeed, the prevailing wind favoured it); but the stage was set, with cyclorama - a sounding-board? - and wings, for monologue. The presiding official (native aristocrat, English king or Italian missionary) was bound to be the chief actor in the piece. That theatrical aspect may well have commended itself to Paulinus, but Edwin and he must have been more keenly aware of the authoritative tradition already associated with the use of this pre-existing structure - as Roman in its idiom as Edwin's recorded use of standards. This was a building made and maintained as the formal setting for acts of government, the laboriously contrived scene of what was essentially a political drama.

The place where these large assemblies were held was at the centre of that dense earlier concentration of native settlements to which archaeology testifies. It lay directly below the towering bulk of the original Hill of the Goats from which its name had been transferred,
still a landmark visible from far off although its ancient oppidum had long lain in ruin. From the outset, Yeavering was well fitted by nature as a meeting-place, lying as a nodal point on a route which, geographically the local line of junction between the lowland and highland hemispheres of native interest, was also potentially the frontier of a refuge zone. There is, accordingly, all in all, a very strong presumption that Yeavering was traditionally associated with the administration of native affairs, and that the location and (to some extent) the function of the later township acknowledged native precedent. Possibly the creation of the township is to be seen as an act of revival prompted by thoughts of political expediency and exploitation; but even so there is an unmistakable thread of continuity running back into the local past.

Yeavering's first large and impressive timber structure was what is called here the Great Enclosure. This unquestionably was a 'native' work in all discoverable respects, and finds close parallels among the region's pre-Roman palisaded enclosures. The beginning of its history cannot be set later than the end of the fifth century after Christ, and there is a distinct possibility that it followed more closely on the local end of the Roman occupation; yet, rebuilt again and again, the Great Enclosure was not only preserved to stand as the largest structure of Edwin's township but was in his day brought to the highest point of dignity and aggrandisement it had ever known. Perhaps, after all, it is this long-cherished palisade work, not the later 'theatre', which is the true key to understanding of the regard anciently shown for this obscure place in the northern Cheviot foothills. But what was it, this fort-like provision - what did it exist for, and stand for, to be so long maintained both by Celtic natives and Saxon intruders?

From its situation, it would be absurd to see the Great Enclosure as a permanent, military work; yet its defensive aspect is obvious. It must have been built and maintained to shelter some perennially important kind of native activity; and equally it is clear that the purpose it served was communal and, as it were, public. Devoid of internal features, it comes reassuringly into focus when viewed as the accepted place for seasonal musterings of local herds, or as the corral instituted by the local ruler for reception of dues or taxes customarily paid in four-hoofed kind. That in itself would be sufficient explanation, indeed, were it not that from first to last, as has already been remarked, Yeavering has a notably 'ritual' aspect. The problem of Yeavering's function demands, indeed, a solution that will at one and the same time account for customary use of the place as a centre for burials and 'religious' observances, for legal administration and political concern, and for the gathering of large assemblies of native people. Must it not appear that the Great Enclosure was the fundamental institution (the 'theatre', but a useful, secondary device) which was the accepted centre for the periodical markets and festivals of the local, native world? Yeavering, perhaps, had survived as the place of something roughly equivalent to the Scandinavian Thing, and doubtless it had its own local word for the theatrical structure that belatedly and perhaps nostalgically gave a little touch of Rome to its formalities.

In such perspective it becomes possible to see why it was this place - this locus in all but name ${ }^{293}$ - that was chosen as the centre of Paulinus's mission in Bernicia. Further, it must be noted how oddly Bede's vagueness as to the timing of Paulinus's visit to Yeavering contrasts with his exactitude as to Edwin's baptism at York on 12 April 627. He allows us to infer merely that the Bernician mission took place later in the same year. It may not be
unduly cynical to acknowledge the possibility that Bede's noncommittal ut quodam tempore ${ }^{294}$ conceals the synchronization of Paulinus's visit with a traditional native festival, at which time the people of outlying places might be expected to resort as a matter of custom to a long-recognized and accepted centre.

Be that as it may, it is surely eloquent of both the context and the purpose of the township that native and Anglo-Saxon indices are found to have been so intimately mingled. All becomes coherent on the supposition that Ad Gefrin was the instrument of Anglo-Saxon political rapprochement with a vigorously surviving native population which, though stubbornly rooted in its traditional ways of life, was at least not overtly hostile (as the township's lack of a surrounding defence work must indicate).

Quantitatively, it is equally significant that so very few specifically Anglo-Saxon objects were associated with this seat of Anglo-Saxon kings. The predominance of native pottery throughout the site's history is wholly consistent with the suggestion that reinvigorated native traditions in building-construction contributed to the development of a new, hybrid form of timber architecture. Overall, the picture that emerges is even more strongly Celtic than could have been anticipated from the conventional view of early Northumbria, and it calls for some reassessment of the Bernician situation.

Bede, ${ }^{295}$ in remarking on the great extent of Aethelfrith's conquests, refers to the extermination of the British inhabitants from some territories and the settlement of men of English race in their stead, but makes it clear that in other areas the British were allowed to remain as tributaries. Bede is writing of the period up to 603 , so that conventionally his observation should apply in part at least to the Tyne-Tweed region or its immediate neighbourhood. Accordingly, if his statement is true, it should be illustrated archaeologically in this region; as indeed one aspect of it seems to be by the whole trend of the new evidence from Yeavering. Ad Gefrin, with its Celtic name, its associations with the Celtic past and its preponderantly Geltic archaeological indices, is most unlikely to have been a minute island of native survival set in an Anglo-Saxon sea. It must have been, at the least, the representative centre of a native district, as evidently the overshadowing oppidum was at a far earlier time. Moreover, such cultural effects of Anglo-Saxon influence as can be seen at Yeavering should surely represent the highest point of anglicization reached in the whole of the area involved. If native mores survive predominantly there, at the formal Anglo-Saxon centre, how much more strongly may they have persisted in the district at large? Persist they did, for Maelmin, in its turn, was known to Bede not by an English but by a Celtic name. Is it not possible that the district or territory served successively by $A d$ Gefrin and Maelmin was one of those that Bede referred to as having accepted tributary status - that it remained at the beginning of the seventh century and even later a virtually intact British province?

In Chapter I of this book it was suggested, on a broadly topographical basis, that the territory now in question was likely to have been a tribal or sub-tribal area economically centred on the light-soil tract of Bernicia's 'Central Zone'. The Yeavering oppidum was taken to mark the special importance of that zone in the early history of settlement between the Tyne and the Tweed. Thereafter, it was argued, the Central Zone statically maintained its old way of life, but was gradually robbed of what was once nearly absolute pre-eminence by the growing significance of the Coastal Zone during the Roman and immediately postRoman centuries. Now, if the early history of Anglo-Saxon Bernicia were really (as it is
always assumed to be) the story of bitter native opposition to Germanic invaders forcing their way inland from coastal bridgeheads, the Central Zone should have been the very last area to yield to the intruders. There alone, in the Cheviot foothills, was there terrain ideal for prolonged resistance, a rallying-zone with bases from which raiding-parties could at least prevent the hated Saxon from enjoying the rewards of his hard-won victory. Yet at Yeavering, Anglo-Saxon authority is seen from the very outset to have respected native tradition, and the circumstance seems to preclude any fundamental disturbance of the native population. The British survived, were so trustworthy that from the start the alien power could set up its halls on open ground in their midst, and were fundamentally contributive to the development of a hybridizing culture.

Thus, where actual or latent hostility would be expected to have continued longest and left its strongest mark, there is not so much as a hint of any discord. The local picture, at this point of the Central Zone of Bernicia, is of a harmonious relationship between the native population and a minute, governing Anglo-Saxon élite, itself susceptible and responsive to formative influences from its British environment. All the evidences would be consistent with the proposition that what is at issue was an English overlordship which, from a very early stage, had been found mutually convenient and congenial.

The idea that Yeavering may have been one of the nodal points in a treaty-province, won wholly or partly by diplomacy, requires the local evidences to be reviewed in the wider perspective of the whole Bernician landscape.

As was remarked at an earlier stage (pp. 25-27), the paramount feature of Bernicia, archaeologically, is that utter absence of characteristic Anglo-Saxon cemeteries which Leeds found 'astounding' and 'inexplicable'. ${ }^{296}$ It is still the case, even now, that not a single diagnostic piece of pagan-Germanic metalwork is known from the area north of the northern edge of the Tyne Valley. Yeavering itself has yielded no metal object certainly of Germanic manufacture earlier than the inlaid iron buckle shown in Fig. 88; and that, like the far less specific grave-group illustrated in Fig. 87, was deposited in the Edwinian or a post-Edwinian phase. Earlier, all that is demonstrably intrusive is the handful of Yeavering's Class 3 (domestic) pottery (Figs. 84 and 85 (4)), with its English and Continental affinities: quantitatively trifling and intrinsically difficult to date, it remains stratigraphically the only convincing evidence for the presence of a veritable Anglo-Saxon element at Yeavering during the preEdwinian period.

Elsewhere in the region between the Tweed and the north bank of the Tyne, a few sparsely furnished inhumation-graves have been claimed as 'Anglo-Saxon' (pp. 25-27). Some attempt at reassessment of their nature and date can be made now. Yeavering is, among all else, the only major burial-centre of the early post-Roman centuries known in that region; and it provides what appears to be a continuous chronicle of the local history of inhumation-burial. Its wide time-span must particularly be stressed:
(i) The Western Cemetery must certainly have been in use until the end of Edwin's reign.
(ii) That cemetery, focused on what was initially a temple with enigmatically enclosed posts, seems far too
large to have been entirely the product of the few years that separate the beginning of the Paulinian mission and Edwin's death. Other evidence suggests that it was instituted in the pre-Paulinian period.
(iii) The temple itself was encased within a new wooden shell in the pre-Edwinian Phase IIIAB - not later, that is to say, than the reign of Aetheifrith. The original structure so enshrined obviously must be older (perhaps considerably older). Let us say for the moment merely that it must have existed in the earliest years of Aethelfrith's power in Bernicia.
(iv) Still earlier are the inhumations within the square enclosure placed within the Western Ring-ditch. However much one strains for the latest dating possible, it is exceedingly difficult to force these too into the period of Aethelfrith. This is an important matter, since it is the Western Ring-ditch that first offers us (two) corpses buried with their pocket-knives. The bodies, like their pathetic ironmongery, are more likely than not to be 'native' products.

Leaving aside the wholly exceptional Grave AX (at the threshold of Edwin's hall), two of Yeavering's three 'furnished' graves occur probably well before the time of Aethelfrith: the other, after Edwin's death. Meanwhile a vastly greater number of unfurnished burials comes into place. There would seem to be no basis for any dogmatic assertion that the presence of commonplace iron objects in this region's graves must betoken Germanic influence.

It is on that assumption, however, that the claim for vaguely 'Anglo-Saxon' burial-places elsewhere in the region largely rests. Let us take the best investigated instance: the little burial-group at Howick. Although it could perfectly well be a native phenomenon, let us hypothetically accept the Anglo-Saxon claim made for it and seek its analogues in the Anglo-Saxon kingdoms of southern Britain. In that context it would find closest parallel in the sparsely furnished, transitional cemeteries of the post-Conversion period, which offer instances of the occurrence of a single bead of comparable type; and it would be assigned a date within the second half of the seventh century. North of the Corbridge-BenwellWhitehill line (p. 303) the outstanding archaeological curiosity of early Bernicia will still remain: from $55^{\circ}$ to 650 , the century of its greatest historical potency, the heartland of Bernicia has next to nothing purely Anglo-Saxon to show, save perhaps at Yeavering.

At the outset the tidily compact distribution of the region's typologically earliest English place-names (Fig. 5) was remarked. On that basis it still seems that the area first to be exposed to such weight of new settlement as would force an intrusive language into common speech must have lain around the mouth and valley of the Aln; but when did that settlement take place? There is one -ing- name, and there are five -ingham- names. None comes to record until centuries after the period in question: none is susceptible to close dating in terms of decades. ${ }^{297}$ Modern historians endorse the obvious probability that these names did not originate before the age of Aethelfrith: it does not logically follow, however, that the Bernician -ing and -inghams must consequently be of the age of Aethelfrith. Their chronology is hardly to be judged without reference to their archaeological context, which will allow of no numerically considerable influx of Germanic intruders into Bernicia before that later period in which the characteristic features of pagan Anglo-Saxon culture are seen elsewhere to be in process of change and decay. It is as plain as could be that the native Bernician population survived intact while accepting the local Anglo-Saxon dynasty established by Ida, famously successful under Aethelfrith, and restored by Oswald.

It is likely that Yeavering presents the overlords more distinctly than their native sub.jects; but otherwise it may be accepted as a Bernician microcosm. Not least impressive is its
evidence for peaceful collaboration between Angle kings and British peasantry, and the steady emergence - at the highest social level - of a hybrid Anglo-British culture.

Jolliffe, ${ }^{298}$ from his study of institutions, was led to remark that 'Northumbria shows so many parallels to Celtic custom that one is forced to suppose historical continuity', and concluded that this denotes '. . . a uniform amalgam of the two civilizations, in which Celtic community and Anglian overlordship unite in a distinctive, Northumbrian society'. Rees, ${ }^{299}$ too, is moved in a more recent customary study to envisage the Celtic population of Northumbria, in the sixth and seventh centuries, as remaining in occupation of their lands while paying their former dues to new masters.

Here is precisely the kind of social context which is indicated not only by the earthbound evidences of Anglo-British culture at Yeavering but also by the more enduring achievements of Northumbrian art in its Golden Age, the finest flower of a vigorous hybrid. In Bernicia, particularly, the Celtic element remained so influential as to make its territory lastingly different from that of any other early English kingdom. In no respect does the evidence seem consistent with the notion that the English overlordship was won by force through an 'Anglo-Saxon invasion'. How, then, was it achieved?

Further, when was it achieved? So far Yeavering's evidence has conscientiously been forced into the conventional framework of recent historical interpretation. The result, as was predicated at the outset of this discussion, is an extreme and unlikely compression of the site's pre-Edwinian chronology. The difficulty is created by the historical presumption that the Anglo-Saxon overlordship of Bernicia was the product of a military conquest of the eastern Tyne-Tweed region in the time of Aethelfrith, for which there is no convincing evidence. It can be removed simply by allowing Aethelfrith, Ida's direct descendant, to have been the inheritor and leader and enlarger of Bernicia and not in any sense its conqueror. Only so can he be found sufficient manpower for his conquests, which surely must be located outside the Tyne-Tweed heartland; and only so can he be granted those base-lands, firm under his feet, which would inspire and sustain - and, indeed, explain - his confidently expansionist policy.

The soil of Yeavering is in effect a palimpsest document, far more strictly contemporaneous with the events it records than are the writings of Bede and the belated Celtic apologetics on which he had to draw. The main effect of this ancient document newly returned to history is to suggest that it may have been Ida, after all, who was the first begetter of AngloBritish Bernicia. That does not solve the problem of the means by which an Anglo-Saxon dynasty gained acceptance, of course: it merely throws the problem further back in time. The change of context might, however, be found to allow various evidences to be read and combined more directly and economically.

A summary of the four most crucial sources that refer specifically to the Anglo-Saxon period of Bernicia's history before the time of Edwin will clarify the issues that have to be explored. Bede $^{300}$ and the Anglo-Saxon Chronicle ${ }^{301}$ state that in 547 Ida, 'from whom the royal
family of the Northumbrians took its rise', began to reign, and that he reigned for twelve years. In the latter source a genealogy is appended, and the $E$ text adds that he fortified Bamburgh. The Historia Brittonum, ${ }^{302}$ in noting Ida's possession of lands on the eastern side of Britain, makes what is presumedly a muddled allusion to his joining together of Bamburgh and Bernicia, perhaps intending to say that he united Deira and Bernicia. ${ }^{303}$

The Historia Brittonum ${ }^{304}$ goes on to tell of fighting in which the later Anglo-Saxon kings Theodric and Hussa were opposed in Bernicia by a British confederacy in which Urien of Rheged is the most prominent figure. The crucial incident is the besieging of the AngloSaxon king on the island of Lindisfarne (Metcaud), about 580-90.

Then there is the British Gododdin poem, ${ }^{305}$ reasonably attributed to Aneirin, which describes how Mynyddawg, a British ruler, rallied his Christian Celtic allies, feasted them at Edinburgh and sent them riding off to battle and utter defeat at Catraeth. Modern scholarship sets the event circa 600 and identifies Catraeth with Catterick in Yorkshire.

Finally comes Bede's statement about the nature and extent of Aethelfrith's conquests to which reference has already been made: Nemo enim in tribunis, nemo in regibus plures eorum terras, exterminatis uel subiugatis indigenis, aut tributarias genti Anglorum, aut häbitabiles fecit. Bede seems to attach special importance to a battle won by Aethelfrith against Celtic - nominally Irish - forces at Degsastan (unidentified but conjectured by some to be Dawston in Liddesdale, ${ }^{306}$.

The modern interpretation of the collective meaning of those four testimonies is that the English did not gain the rulership of any considerable part of Bernicia until about 600, and that then they did so by force of arms. It runs as follows. Bede was in error: Ida's 'kingship' was no more than the captaincy of a band of Anglo-Saxon freebooters which had (somehow) seized Bamburgh, the paramount fortress of Bernicia (and perhaps other coastal strongholds). ${ }^{307}$ Although this piratical band had been strong enough to achieve so remarkable an initial success, it was so weak for half a century thereafter as to be pent up on the coast by the opposition of the native people of Bernicia and other British regions, ${ }^{308}$ as the siege of Lindisfarne circa $580-90$ is alleged to show. About 600 the Anglo-Saxons already entrenched in Bernicia, it is argued, were still so negligible that the warriors of the Gododdin poem could carelessly leave them aside and ride instead to defeat at Catterick in Yorkshire. ${ }^{309}$ Other Celtic forces were then disastrously defeated at the unidentified Degsastan (still conceivably in Liddesdale?) circa 603 by Aethelfrith, who was consequently able to take immediate and complete possession of Bernicia.

Clearly that interpretation rests on five assumptions. Assumption $A$ is that the region from Tyne to Forth was a single, undivided political entity (apart from the requisitely unimportant Anglo-Saxon coastal bridgehead at Bamburgh) until about 6oo. Assumption B, arising from $A$, is that the natives of that entire province were necessarily unanimous from first to last in their hostility to the English, and that consequently the British people of the TyneTweed region - of Bernicia - must have been directly involved in fighting the Anglo-Saxons from 547 to 600 . Assumption $C$ is that Ida was in reality a somewhat absurdly rock-bound pirate chief, and that Bede's clear statement as to his kingship and its importance cannot be true because of Assumption $D$, which takes the siege of Lindisfarne to be a sure indication that the English were on the edge of utter defeat and expulsion in the 580 s . Assumption E, building on the foregoing, has it that the English dynasty already in Bernicia was of so little account
about 600 that the British ruler in Edinburgh could ignore it while plausibly rallying a military expedition, into Yorkshire, which was to prove disastrous.

Modern interpretation of the surviving ancient written sources must necessarily involve assumptions and hypotheses. While the number of documents available to history seemed a fixed and finite fact of life, the cumulative process of modern interpretation appeared immune from test. Now, if Yeavering can be regarded as something akin to a lost British chronicle with an Anglo-Saxon gloss, there is occasion for experimental review - however crude and tentative - of those five crucial 'assumptions'.

Reassessment of the worth of Assumption A (the most difficult and obscure matter involved in this inquiry), demands a survey of what is known about the Tyne-Forth province in the first six centuries AD.

In the second century Ptolemy ${ }^{310}$ locates the Votadini between the Hadrianic and Antonine walls. He indicates that their territory extended at least as far south as Bremenium (High Rochester), and his Curia has been thought to represent either Corbridge or Traprain. ${ }^{311}$ It is widely accepted that some native tribes between the walls played a philoRoman part in the turbulent history of late-Roman rule in Britain. There is, indeed, some justification for the suspicion that the native kingdoms of Gododdin and Strathclyde were established or recognized by an act of late-Roman policy, which thus interposed between Roman Britain and its northern enemies a buffer state at each end of the Antonine Wall. ${ }^{312}$ Initially, at least, the Pictish and Irish enemies on the British doorstep constituted a far more urgent and powerful threat to the Roman 'Establishment' in the north than did any boatloads of Germanic raiders. The intramural region, accordingly, is especially likely to have been directly involved in Roman counter-measures particularly designed to frustrate Pictish outbreaks and increasing Scotic infiltration. On the most general grounds, therefore, it is indeed highly probable that there was some extension to this region of the extraordinary expedients found necessary south of the Hadrianic frontier and along the Saxon Shore. Among those, early employment of Anglo-Saxon foederati and laeti is becoming increasingly evident, archaeologically.

There is a single (and a late) reference ${ }^{313}$ which explicitly refers to a Votadinian migration from Manaw to Gwynedd, north Wales, under Cunedda (Cunedag appears genealogically as the ancestor of Maelgwn). This alleged movement is usually explained as an act of policy designed to meet the Scotic threat in the south-west. ${ }^{144}$ Cunedda's eldest son is said to have remained in Manaw, nevertheless, and - however much or little credence is given to the whole story - it seems most unlikely that there could have been a migration so massive as utterly to imperil the security of the north. However, as Hunter Blair ${ }^{315}$ has suggested, the Cuneddan migration, if placed about the middle of the fifth century, could be seen as a product of that period of British prosperity chronicled by Gildas (perhaps as an over-confident venture which so weakened Manaw as to invite further invasions from the north). Hunter Blair points out that renewed danger from the northern tribes and the employment of Germanic mercenaries are said by Gildas to have followed the period of prosperity, and
that accordingly there seems to be such an approach to coincidence in the timing of all these northern events as to allow them possibly to have been interconnected. Bede goes further than Gildas and asserts that the 'Saxons' achieved an initial success in repelling the Picts. Thereafter, he says, their own numbers were greatly increased by further immigration from the Continent, and they entered into an agreement with the Picts 'whom they had by this time repelled by force of arms'. ${ }^{316}$ If the repulsion and the alliance are to be accepted as historical 'facts', the eastern part of the intramural region must have been the scene of some of these events, if only as a debatable land. It is at least interesting that people from north of the Wall are said to have aligned themselves with the English at so early a date, and that too is a matter which must later be considered in more detail.

Chadwick voiced his suspicion that Cunedda's ancestry was ultimately Pictish ${ }^{317}$ and pointed out that the name Manaw seems to have Pictish affinities. ${ }^{318}$ It is widely agreed that the surviving Slamannan and Clackmannan preserve that name, and that Guotodin certainly refers to the Votadini. Manau Guotodin, or 'Manaw in Gododdin' was but one part of a greater, anciently Votadinian, territory. Modern opinion locates it round the head of the Forth, as is consistent with the -mannan place-names; and the identification of the natural fortress at Stirling as urbs Giudi ${ }^{319}$ explains the strategic role that gave its district importance and a barbarous dignity in late-Roman times. Chadwick suggests that Manaw refers to a less restricted northern area of the Votadinian territory. Was it, he asks, Lothian? ${ }^{320}$ As Leudonia, Lothian is said folk-mythically to have taken its name from Leudonus, a semipagan sixth-century king (allegedly the grandfather of St Kentigern) associated with Din Pelidr (Traprain Law) and Dinas Eidyn (Edinburgh); and, as Lothian appears to have extended through the modern Berwickshire to the lower Tweed in the twelfth century, Chadwick is inclined to think that this was so in earlier times also. ${ }^{321}$ On that far from unquestionable basis, all or most of the eastern part of the Tweed-Forth region could have been the territory of a sixth-century king who, as Chadwick suggests, might possibly have belonged to the same family as Cunedda of Manau Guotodin. ${ }^{322}$

In the present context, the crucial problem is not so much to determine the status and extent of Manaw within Gododdin as to understand the territorial implications of the term Gododdin itself in the period roughly from 500 to 600 . By 600 , clearly, it has no meaning south of the lower Tweed. It is about that time - during or before the reign of Aethelfrith that the Gododdin poem shows the Men of the North setting out from Edinburgh to oppose forces serving the cause and ends of English kingship. The royal seat at Edinburgh was then the rallying-point for warriors drawn from a wide range of western and north-western Britain, among whom (to anticipate a later point) there is none who can be identified as coming from the area of modern Northumberland south of the Tweed. It was once supposed that Calchvynydd must be Kelso, on the Tweed: ${ }^{323}$ even if that identification were not now gravely in doubt, the lord of Calchvynydd could not be claimed as a Bernician - he would, be one of Bernicia's neighbours.

It is usually assumed that the whole of the territory between Tyne and Forth remained Votadinian in name and political loyalty from the time of Ptolemy to the last decades of the sixth century. ${ }^{324}$ In that view it is only as late as circa 600 that the Tweed becomes the southern frontier of Gododdin, and then only because Anglo-Saxon invaders have conquered the Tyne-Tweed region. Now if, up to that time, the Tyne-Forth province had been
a single political and cultural entity, one would expect to find broad archaeological uniformity overall during the period $400-600$. In fact, however, there are such striking contrasts between the northern and southern parts of the territory as to suggest that the Tweed was a cultural (and so potentially in some sense a political) frontier well before 600 . Some elements of those contrasts are demonstrated in Fig. in i, but their nature and implications must be discussed. First, by reason both of their number and their significance, are the memorialstones inscribed in Latin, and the long-cist cemeteries - which are probably to be regarded as fundamentally related aspects of Early-Christian culture. Lothian is thick with long-cist cemeteries, and there is a thin fringe of surviving memorial-stones from Edinburgh to Chesterholm; but the early heartland of Bernicia can show only, and at that uncertainly, one group of long-cist graves, at Bamburgh (pp. ${ }^{252-7}$ above). Secondly, the massive usually double-linked - silver chains that are called 'Pictish' find the focal area of their distribution in Lothian, where Traprain's fifth-century hoard speaks of local wealth in provin-cial-Roman scrap-silver (loot, or a form of subsidy?) ; but there is not a single example from south of the Tweed. It could well be argued that these silver chains are better thought of as a twilight-British than as a specifically Pictish phenomenon; but, however that may be, they serve to introduce the more assuredly proto-Pictish and Pictish indices of Lothian-Pit-names and broch-like structures. ${ }^{325}$ These cannot be entirely irrelevant to the question of Gododdin's diplomatic involvement with Pictland in the fourth and fifth centuries; they recall Chadwick's suspicion that the ruling house of Manaw may have had Pictish affiliations, and on any reckoning further distinguish the lands north of the Tweed from those to the south.

The nub of the matter is of course the date at which the cultural cleavage between Lothian and the territory now known as Northumberland first appeared. Obviously it can only have originated well before 640 , since by then the Northumbrian expansion to the Forth was already, politically, reunifying the Tyne--Forth province and the tendency was to remove rather than create such distinctions. Not the least part of the contrast between the two regions appears from the clear evidence for early Christianity in Lothian and stubbornly belated paganism in Bernicia. The Gododdin poem, as it survives, represents the Men of the North as Christians, and so gives historical or quasi-historical context to the Cat Stane and the long-cist cemeteries; whereas no historical or archaeological vestige of Christianity is to be found in early Bernician territory before the time of Paulinus. Indeed, Bede goes out of his way to remark that there appeared to have been no visible monument of the Christian faith in Bernicia until Oswald set up his cross at Heavenfield. Yeavering, until Oswald's reign, could show at best only a pagan temple converted to Christian use in 627 , and Paulinus's mission in Bernicia is probably to be seen as an acknowledgement of that archaic region as an outstanding stronghold of heathenism (p. 250). The division, therefore, must date from before Paulinus's missionary activities in Bernicia; and, since the surviving series of memorial-stones around and beyond the Bernician borders is agreed to begin early in the sixth century (and the Over Kirkhope Orans is possibly of even earlier origin), ${ }^{326}$ this divergence between the emergent Bernicia and its northern and western neighbours can hardly have begun later than about 500 . The probability is that it goes back to the Ninianic phase; and, if so, it is at least interesting that the northern and southern halves of a supposedly united Gododdin, stretching unbroken at least from the Forth to the Tyne, should exhibit such strikingly different reflexes. Orthodox historical opinion does not allow Anglo-Saxon
power to have been generally effective in Bernicia much, if at all, before 600; so that the contrast between Bernicia and Lothian during the first half of the sixth century cannot be written off, even in such conventional terms, as a product of revolutionary change brought about by what is supposed to be no more than the capture of Bamburgh by a band of AngloSaxon pirates in 547 . The only hypothesis that will explain the evidence is one that takes the lower Tweed as being, in or before 547, the frontier between two perceptibly different British territories: the one at least rudely sophisticated, literate, and Christian, and the other relatively barbarous, backward, illiterate and pagan. If Gododdin did indeed reach as far south as the Tyne in 500 , which is by no means certain, its two major departments can scarcely be thought always to have seen eye to eye.

What we miss most in Bernicia, in the last analysis, are such evidences of sub-Roman literacy as are associated with the northern lands of the Votadini - early on, the alphabets at Traprain; ${ }^{327}$ later, the memorial-stones, the proud conjuring with romanized personal names. ${ }^{328}$ Nothing whatever survives historically to show that the early-Bernician milieu was one in which bards and chroniclers celebrated the personages and events of the fifth and sixth centuries. That in itself might be due merely to linguistic, dynastic and political reorientation after 547, which could be thought to have removed the incentive for later literary preservation of local oral traditions of the Celtic past; but nevertheless the balance of the evidence as a whole does suggest that between the regions divided by the Tweed there was possibly a long-standing difference in the quality of life and culture, a tendency to divergence that was created or intensified by the events of the fourth and fifth centuries.

Yeavering shows, nevertheless, in its structures, that sixth- and seventh-century Bernicia itself was not without some kind of Roman inheritance. Its first rectangular buildings (however so humble) appear before there is any sign of Germanic intrusion, and it must be concluded that here - as elsewhere in the Celtic fringe - the adoption of the rectangular form was a direct response to Roman practice (pp. 232-7). Those particular structures, like the circular entrance-works of the 'fort', may be late testimonies to the lasting effectiveness of relatively early Roman influences absorbed into native tradition; but that is a matter of practical convenience which need not involve the philosophy of Romanitas. Yeavering's theatre, on the other hand, does show obvious regard for the image of Rome, even though there is at present no indication that such assembly-structures had become a general feature of northern British culture during the lifetime of Roman Britain. The form of this structure, and the 'solid-wall' technique that is the hall-mark of Yeavering-style building overall, are more likely to have sprung from later emulation - in an age at once nostalgic and arrogant of stone monuments that survived to remind Britain of past Roman glories. All in all, if it were possible to express the effectiveness of Roman culture in the Tyne-Tweed and TweedForth regions in the form of a graph, the chief point of contrast (as the evidence stands at present) might well be between the sharp rise of the Tweed-Forth curve in the fourth and fifth centuries and a shallower Tyne-Tweed response.

From the evidences so far reviewed it appears that the cultural reflexes of the regions divided by the lower Tweed were strikingly different even in the period before 547 ; and those evidences are so diverse and so consistent as to indicate that a schism of some kind really existed. Now the possible cause and implications of that situation must be considered. A priori it seems necessarily to involve a significant degree of disunity in the Tyne-Forth
province before the sixth century; but is there any solid basis on which the idea of a corresponding political division, actual or incipient, may stand and be examined? It would seem that there is. The political geography of the earlier Iron Age is still marked plainly on the ground as a pattern of major and minor strongholds - each a document waiting to be read, and the whole potentially in various respects more revealing and trustworthy than Ptolemy. Accordingly, it is a matter of special interest and importance that R. W. Feachem has been led quite independently, from his close study of the monuments of the North British Iron Age, to recognize Lothian and Northumberland as separate pre-Roman regions divided by another which embraces Lower Tweeddale. ${ }^{329}$ It is obvious on the face of the matter that within the bounds of the Votadinian tribal confederation there must have been provinces, districts and other local divisions of political interest and responsibility. The rivers Forth and Tyne are accepted as having contributed to the shaping of the frontiers of the Votadini, the Romans and the later Gododdin; but the river Tweed cuts the same eastern territory into halves and must have been equally decisive in determining the internal structure of the contained regions. That division was, moreover, early stressed by the eastward thrust of the Selgovian wedge where the Tweed's tributaries converge in the neighbourhood of Kelso. In a territory on which nature imposed an inescapable physical dichotomy, it is not surprising to find what seems to have been a persistent duality in the centres of human political activity. Of the major strongholds that have been investigated, Lothian's oppida on North Berwick Law and Traprain Law find their equivalents in Northumberland's Bamburgh and Yeavering Bell (excavation has shown that all were in use on the eve of the Roman conquest). ${ }^{330}$ It is not unlikely that excavation will show the natural fortress at Edinburgh to have been in use at the same time; in which case a more exact parallel between Edinburgh and Bamburgh, clearly invited by later evidence, might earlier be drawn. At all events the comparison between Traprain and Yeavering is not unjustified. It was evidently not least as a folkcentre and market that Traprain was allowed to survive throughout the Roman occupation. ${ }^{331}$ Although Yeavering's oppidum was evidently abandoned (perhaps slighted) in the first century, the building of the later township under its shadow-enclosure, temple, assembly-structure, standing posts, great halls - seems to imply that the function of the oppidum as a folk-centre had meanwhile become attached to the lowland neighbourhood at its foot. In that view Yeavering and Traprain would appear as regional counterparts, and the conspicuously contrasting fortunes of the two inland oppida might then reflect a significant difference in the relationship between Roman and native in the regions north and south of the Tweed. Be that as it may, those centres ultimately sink into insignificance in the face of the two strategic, coastal strongholds that dominate the early post-Roman history of the Tyne-Forth territory. Both Bamburgh (the Din Guayrdi inferred from Nennius) and Dinas Eidyn ${ }^{332}$ emerge during the sixth century as major political and dynastic centres: the one accepts Anglo-Saxon kings, the other becomes the rallying-point of Celtic resistance to Bernician expansion; and each is the 'capital' of a distinct kingdom bounded at one extremity by the Tweed.

Taking all the available evidence into account, it is difficult to resist the conclusion that that situation was in some degree the outcome of earlier disunity in the Tyne-Forth province. The Romans may have found its peoples nominally and politically Votadinian; but whatever the ancestry of its political rulers the origins and reflexes of its population clearly were
diverse, and the natural division between its regions was bound always to preserve and promote local differences in experience and reaction. Roman vacillations in the intramural region may for a time have recognized or sustained some nominally Votadinian unity; but the ultimate effect of Roman preoccupation with the strategic potentialities of the Tyne and the Forth seems actually to have been the drawing of the Tyne-Tweed and Tweed-Forth regions politically apart - or at least the setting of them, as it were, back to back. It is obvious that the changing pattern of Roman strategy stressed turn and turn about the importance of the northern and southern extremities of the territory, and this must have brought about a certain polarity of interest in the native rulers of the regions affected. When in the end a romanizing Gododdin appears in history, it is as a power that controls the province called Manaw, which holds the vital crossing of the Forth at the east end of the old Antonine frontier. The Bernician region meanwhile, its southern boundary no less clearly related to the Hadrianic frontier, has perhaps been left to its own devices in a different situation. The Wall has decayed, and its vici; the Tweed divides, and those who live to the south of it are unsung and unsubsidized. The sea lanes are open, however, to both north and south, and it is in the coastal fringe around Bamburgh that new developments take place.

Is it not possible that Ida found Bernicia already fallen or falling away from the world of Gododdin and its western neighbours, and in one way or another took his opportunity? He may have found his kingdom ready-made; for the very name of Bernicia is fundamentally Celtic, and it would be absurd to suppose that the English gave a Celtic name to a territory which previously had no identity. They must surely have inherited and adopted the name by which that same territory was known earlier, just as they inherited and used the British names of Gefrin and Maelmin. Especially in view of the long-standing cultural differences between the areas to the north and south of the Tweed, it seems likely that the Tyne-Tweed region had become a distinct entity with a name approximating to Bernicia (Professor Jackson's *Bernăccieiä ${ }^{333}$ ) before 547.

However Ptolemy's second-hand testimony as to the early extent of Votadinian territory is to be interpreted, the evidence suggests that the post-Roman cleavage of the Tyne-Forth region was the consequence of a natural dichotomy in this little 'native' world, stressed by the emergencies of the fourth and fifth centuries. Bernicia's acceptance of an Anglo-Saxon dynasty may have been an effect rather than the cause of this division. Necessarily rejecting now the notion of Bernicia's conquest by overwhelming Anglo-Saxon force, it will be difficult to suppose that Aneirin's 'men of Bryneich' were not mostly British natives of the Tyne-Tweed territory, at loggerheads with their northern and western neighbours.

Assumption $B$ is perceptibly weakened by the insecurity of $A$, in which it is rooted. It may be left aside for the moment, to be judged by its fruits $-C$ and $D$. Great significance has recently been attached to Assumption D ; and a fresh view of the siege of Lindisfarne and its possible implications may illuminate the other problems.

The Nennian account of the attack on Lindisfarne ${ }^{334}$ is the only convincing record of sixth-century Anglo-Celtic conflict specifically located in early-Bernician territory. It is of special interest, accordingly, that here (as in the Gododdin poem) all the identified enemies of the early Bernician kings come from regions outside Bernicia.

The story is prefaced by the statement that Hussa, king of Bernicia, was fought by Urbgen (Urien, king of Rheged), Riderch Hen (Ryderch Hael, king of Strathclyde), Guallauc (thought by Chadwick and others ${ }^{335}$ to be the father of Ceredic, king of Elmet) and Morcant (whose territories, Chadwick tentatively suggests, may have lain in Dumfriesshire). ${ }^{336}$ Next, Theodric, Hussa's successor, is said to have fought bravely against Urien and his sons. There follows the statement that at this time 'sometimes the enemy and sometimes our countrymen were defeated and he [Urien] shut them [the Bernicians] up in the island of Metcaut [recte Medcaut $=$ Lindisfarne ${ }^{337}$ ]; and while he was on an expedition he was murdered, at the instance of Morcant, out of envy'. If we assume that there were Bernician natives among Urien's forces at Lindisfarne we do so, then, not from the testimony that is in evidence ${ }^{338}$ but from our own preconceived notion of the whole situation.

Moreover, although the brief reference to the Lindisfarne incident is always treated as evidence of the weakness of the Bernician side, it seems that Urien's war-band must have failed in its purpose. That Urien's murder by Morcant is mentioned almost in the same breath as the 'shutting-up' may suggest that the failure was due to internal dissension among the besiegers; but, whether or not that was so, it is difficult to avoid the conclusion that if the English king had been captured, or his supporters wiped out, we would assuredly have been told about that too, if only in compensation. Further, it must be observed that no victory is actually claimed for the attackers (unless it be in the vague, preceding indication that sometimes one side won and sometimes the other, which could be thought to indicate that the reference to Lindisfarne was put in to relieve what otherwise would have been a sorry account of Urien's persistent failure to break the power of the Anglo-Saxon kings). The mere cutting off of an island which was, then as now, in any case seabound for the greater part of each day is in itself no great achievement, nor in this particular case does it appear to have had any great consequence. We do not hear that Bamburgh was besieged at the same time, let alone that it ever fell to Urien or his followers. That would truly have been a memorable victory, and (had it happened) the Lindisfarne incident would have been altogether eclipsed by it; for, while Bamburgh remained in Bernician hands, the sea that so regularly covered the Lindisfarne causeway offered at all times a route for the escape, rescue or reinforcement of the besieged. This apparently abortive episode can have no momentous meaning unless it has a naval aspect.

Lindisfarne is strategically the natural seaward outpost of that craggy bastion at Bamburgh which Bede and the Historia Brittonum tell us was called Bebbanburh early in the seventh century. It possesses not only a similarly fortress-like rock (carrying today the Lutyenized shell of a sixteenth-century fort) to which the curiously interesting name Beblow is attached, but also a good harbour still used by the local fishing-boats. Lindisfarne and Bamburgh together would provide the essential basis for control of coastwise traffic by sea and land; and now that it is known with certainty that the stronghold at Bamburgh was in use from at latest the first century before Christ, ${ }^{339}$ it is reasonable to suspect that these two bastions played complementary parts in coastal defence during the Roman Iron Age and perhaps later. ${ }^{340}$ The island could have served an invader well as an off-shore base for primary landings on the mainland; but, since Ida is located at Bamburgh in 547, some decades earlier (so securely as to be deemed a king, if only by himself and Bede), what was at issue at the time in question was obviously not an Anglo-Saxon invasion of Bernicia.

The incident takes place almost on the eve of Aethelfrith's accession, and he is noted for his conquests of British territory. The current of events may be judged by looking ahead roughly two decades from Aethelfrith's death. By 638 Edinburgh is in Bernician hands. It is possible, accordingly, to turn the recently conventional interpretation of the siege of Lindisfarne inside out, on the assumption that Bernicia was already powerful in the last quarter of the sixth century, and already looking northwards across the Tweed in its expansionist aspirations. On that basis, the alarm of Bernicia's neighbours, the star-studded cast of warrior-aristocrats engaged to besiege Lindisfarne, and the ineffectiveness of the operation can more satisfyingly be explained. But why should Lindisfarne, of all places, have been singled out for attack, and for record?

Any sensible commander would have seen that the most simple and direct way to establish a Bernician bridgehead north of the Tweed was to circumnavigate the estuary and invade from the sea. Lindisfarne offered the ideal base for assembly of a Bernician invasion-fleet. That perhaps was what Urien and his followers tried to prevent. We do not need to suppose that they fought their way overland to the causeway which gives access to Lindisfarne. They, too, were sensible men and will have used the same naval sort of stratagem - but in reverse.
'Sometimes the enemy and sometimes our countrymen were defeated.' Surely the contest must have been between two powers both of which were so firmly established as to make expeditions overland extremely hazardous? After the naval blockade of Lindisfarne had failed, a similar Celtic confederacy circuitously skirted the bounds of Bernicia overland, to make a disastrously unsuccessful attack on Catraeth - a Celtic Armageddon oddly like that of Degsastan. The weakness of sixth-century Bernicia is not in evidence, even at Lindisfarne.

Since assumptions A and D have been found to have no real basis, assumption B has been left doubly weakened. Consequently, what justification can there be for the curiously perverse assumption C which so lightly dismisses the matter of Ida's kingship?

There seems actually to be no reason why we should reject Bede's statement that Ida 'began to reign' in 547, reigned twelve years and was the founder of the Northumbrian royal family. The entry for 547 in the Anglo-Saxon Chronicle follows Bede closely (though it uses the variant phrase 'Ida succeeded to the kingdom'), and the Historia Brittonum actually speaks of Ida's possession of lands on the eastern side of Britain. When all is taken into account, is it not conceivable that Ida's accession really was an event of authentic and far-reaching significance, as its place in recorded history would suggest?

If we take the written evidence at its face value and make 547 the starting-point of our hypothesis, Ida either makes a new kingdom or inherits one previously governed by a British ruler. While it is at first sight tempting to suggest that the mysterious Dutigirn (recte Outigirn) of the Historia Brittonum ${ }^{341}$ might even have been the expelled former king of that territory, it is extremely doubtful whether any direct connexion between the successive statements relating to Ida and Outigirn is really intended in the text. The reference to Ida's possession of lands in eastern Britain is made at the end of chap. 6I. The beginning of chap. 62 simply says that it was 'at that time' that Outigirn fought bravely against the nation of the Angles, just as it goes on to say that 'at that time' Aneirin and Taliesin were famous poets and Maelgwn reigned in Gwynedd. The text does not say that Outigirn fought bravely 'against
that same king'; instead it falls immediately into a generalizing form and says 'against the nation of the Angles'. Thus Outigirn is on the whole more likely to have been active in one of the regions to the south which archaeology shows then actually to have been subject to Anglo-Saxon penetration and settlement. If we can dismiss the idea that Outigirn was intimately involved in Bernician affairs in opposition to Ida, we are left without any evidence to indicate that Ida won his kingship by warfare against the Bernician natives; whereas the conventional view demands that a considerable battle or battles should have taken place, even if the Anglo-Saxon victory had been limited to the remarkable taking of Bernicia's most formidable coastal stronghold. It is at least a little more rash to assume that there were battles, when we have no evidence of them, than it is merely to suppose that none occurred. Accordingly there is rather less justification for Assumption B, the notion that Ida imposed his kingship by force of arms, than for the alternative - which is that his leadership was peacefully accepted (for reasons that will be suggested at a later stage) by most or all of the native people of Bernicia.

Up to this point, the assumptions recently imposed on the written evidences do not seem unquestionably secure. They all seem to require that the relationship between Celts and Saxons should be seen throughout in terms of Hollywood cowboys and Indians. Consideration of the nature and balance of the sources available to historians may explain that view: the literature that survives at second-hand is mainly 'dynastic' and predominantly Celtic. Obviously nothing was written down until Bernicia had long been established as the major power of the Tyne-Tweed region. Even Bede had to draw largely on the late and apologetic testimonies of a defeated political faction in the Celtic west. It often serves political propagandists well to obscure identities. In our enlightened age, journalists use such terms as 'British subjects' and 'Communist forces'; how, a thousand years hence, could the ethnic origins of the parties involved be inferred with any degree of historical reliability?

It would be absurd to regard the emergence of Bernicia as the result of a war between invading Anglo-Saxon warriors on the one hand and the loyally indivisible forces of the British north and west on the other. If the earliest English kings in Bernicia were so weak as a grossly over-simplified reading of the historical evidence would suggest, how did they contrive to 'conquer' Bamburgh? How did they maintain their foothold, against the attacks of so mightily impressive a Celtic confederacy? Above all, what reinforcement can it have been that enabled Aethelfrith to make what are alleged to be such startlingly sudden and widespread conquests, immediately after the supposed period of weakness? The archaeological evidence forbids the notion of any considerable body of Anglo-Saxons in Bernicia until, or more probably after, the time of Edwin.

The formidable adversaries of Urien and his confederates can hardly have been AngloSaxon save in their leadership, but they cannot be dismissed as fictional products of the teeming Celtic imagination. Nor when history shows them overwhelmingly victorious, can it be supposed that they were not numerous.

Celtic cowboys are in evidence wherever one looks, but the requisite horde of AngloSaxon Indians is not to be found despite long search. Bamburgh's Anglo-Saxon dynasty is not historically in doubt; but we must grant it the support of native-Bernician forces from
the time of Ida onwards if the fundamental problem is to be resolved. Then Aethelfrith's achievement will simply have been the expansion of a kingdom whose Tyne-Tweed nucleus had been so united in support of his predecessors as to invite and buoyantly to survive attack from outside its bounds.

Before passing on to consideration of the circumstances in which Anglo-Saxon kingship can have been established peacefully north of the Tyne, we must examine the last of those crucial sources which has been interpreted according to the currently prevailing view: the poem known as the Gododdin of Aneirin, which is the basis of Assumption E.

Recently this poem has been used most powerfully as an historical document by Professor Jackson. ${ }^{342}$ It is not at all the purpose of the present writer to cast doubt on the validity of this poem's notice of an extraordinary rallying of Celtic forces by a prince of the district perpetuated by Edinburgh; of the feasting, the mounting and the setting-out of an illustrious war-band, duly churched, to meet at Catraeth a threat to the royal mead-giver's security. The poem is surely, indeed, the memorial of a crucially momentous event. If we may judge by its result - the poet laments that one man alone survived - the Celtic host had pledged itself to victory at all costs, and certainly Mynyddawg's mead was bought at a ruinously heavy price.

All this is nonsense, however, unless the occasion celebrated and mourned was the last stand of that part of the Celtic world that was practically as well as sentimentally responsive to an appeal from the neighbourhood of Edinburgh. On the highest philological authority we must believe that Catraeth was the modern Catterick in Yorkshire - 120 miles from Edinburgh, as the crow flies. That identification makes the choice of Edinburgh as the British rallying-point seem both curious and significant. Professor Jackson once pointed out the inherent difficulty, ${ }^{343}$ and sought to circumnavigate it by suggesting that the Men of the North must have made their putative attack on Yorkshire from the neighbourhood of Carlisle; but how odd that is if so many had travelled northwards to a rendezvous in or near Edinburgh (probably not Carriden, higher up the Forth ${ }^{344}$ ) when Carlisle, eighty miles to the south, would from the first have been so much more convenient. However that may be, Jackson convincingly confirms that the British expeditionary force did indeed set out from Edinburgh, and has demonstrated that its destination must have been Catterick in Yorkshire.

The identification of Catraeth with the surviving Catterick in what was Deira rests on an elegant and impressive philological equation. The Yorkshire Catterick was the Cataracta of Bede (Cetreht in the Anglo-Saxon version), deriving from the Roman Cataractonium - presumably a reference to the waterfall at Richmond, some miles distant. All rests on the philologically unexceptionable formula Catraeth $=$ Cetreht/Cataracta $=$ Cataractonium. ${ }^{345}$ Had Professor Jackson not weaned the writer from the supposition that some other waterfall or stretch of rapids in North Britain could possibly be involved, it would have been argued now that Catraeth more probably lay in the valley of the upper Tweed (or, if the old 'sandy-shore' interpretation were still admissible, at its estuary). Since Degsastan can hardly have lain in Yorkshire, Fig. in4 may be allowed even now to stand; but it must still be asked why the responsive élite of British warriors should find its rallying-point at Edinburgh and charge into Yorkshire by way of Carlisle, if Bernicia had not been already a solidly established kingdom.

Jackson, of course, from the first saw this point and has produced in discussion the apt phrase and concept - 'a weak joint between Bernicia and Deira'. Symeon of Durham encourages us to think that even in his time there was a wasteland between the two nuclear territories.

It must accordingly be supposed that the Men of the North (and west) found Bernicia itself not merely negligible but practically invulnerable. The besiegers of Lindisfarne still licked their wounds. Deira long before had been exposed to a process of Anglo-Saxon settlement which remains clearly in evidence. There must indeed have been some notable difference between Deira and Bernicia, a weak joint, when the king in Edinburgh circa 600, gambled all on what proved to be a Charge of the British Light Brigade in northern Yorkshire. He was roughly two centuries too late if he wished to turn the tide of events in Deira itself. It cannot have been his purpose to prevent an imminent Anglo-Saxon invasion or reinforcement of Bernicia from Deira, when the Gododdin poem so signally mourns his utter failure and yet Anglo-Saxons remain so remarkably thin on the Bernician ground for some decades later. Acceptance of the Catraeth-Catterick equation at so late a date requires that the British expedition was mounted to make a desperately experimental raid beyond the Hadrianic line, presumably designed to isolate Bernicia from Deira.

The elegiac Aneirin is far less reliable an historian than his outstanding modern interpreter; but he makes clear important distinctions between the Men of the North, the Men of Bernicia and the Men of Deira. A major verbal artist of the post-Roman period, Aneirin - like a jewelsmith - was attached to a regal British court. Serving the British cause, he will not carelessly have used euphemisms that would blunt the edge of his commissioned purpose. That is perhaps not the least convincing argument for the Catterick-Catraeth equation, that Aneirin is discreetly able to use such terms as saeson and lloegrwys in reference to the victorious enemy at Catraeth. Only south of the Hadrianic frontier can Aneirin's heroes have met a considerably large body of Anglo-Saxons. Nowhere does the poet directly assert that the Men of Bryneich themselves were Angles or Saxons save in their political allegiance.

The vicinity of Cataracta appears in later contexts as a place of some importance (the scene, for instance, of an incipient battle between the Deiran Oswine and the Bernician Oswiu), and may well have been a northern outpost of Deira that was worthy of attack. It is still of extraordinary interest, nevertheless, that it is Mynyddawg of Edinburgh who stands, on Aneirin's testimony, as the instigator of the British last-ditch assault on Catterick. Perhaps it is conceivable that the Gododdin poem is merely the 'Edinburgh version' of an event that the bards attached to other interested British courts recorded in other terms? If Bernicia had really been so weak as has recently been alleged, Mynyddawg would have done better quickly to settle the petty little problem that lay on his own doorstep, at half the cost. As it is, his leadership in hospitality and the circuitousness of his war-band's strategy must show him to have been the most immediately threatened; and the evidence of the Gododdin poem will further justify the approach to a new hypothesis that has already been proposed.

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In our new hypothesis Bede's statement that Ida became the ruler of Bernicia in 547 will not be tampered with, but will be accepted as plain truth. Further, the fact will be faced that neither in the sixth nor in the seventh century can we produce evidence of the presence of
any considerable number of Anglo-Saxons north of the Tyne Valley. Consequently, we can no longer accept that, in those conflicts of which we are told in the reigns of Ida's successors, the Bernician side was Anglo-Saxon in more than its leadership. Obviously the Celtic confederacy at Lindisfarne was not shadow-boxing; so we are now forced to conclude that the massive enemy which 'sometimes' and finally won was an extensive body of native 'Britons' which had earlier and easily accepted Anglo-Saxon rule. It would be reasonable to suppose that that is why we are told 'Ida began to reign / succeeded to the kingdom', and not 'Ida conquered . . $\therefore$ The British intramural kingdoms which were not party to that local AngloCeltic agreement can be identified from those rulers who are stated to have fought the Bernicians: Rheged; Strathclyde; and, centred on Edinburgh, Gododdin. Consequently we no longer have to believe that the massive Celtic confederacy was brought into existence simply to crush a 'weak' piratical band of Anglo-Saxons in Bernicia, like a sledge-hammer forged to smash a cuckoo's egg. Now its existence, its actions and its failure can be seen to respond to an emergency of appropriate gravity and magnitude. If the native population of Bernicia stood united behind its Anglo-Saxon leaders, the autonomy of the other Celtic kingdoms in and beyond the intramural region was indeed in jeopardy. Rheged's eastern frontier was already open to attack overland; but, as Urien obviously realized, the Bernicians had first to secure their right flank against counter-attacks from the Lothians, from Gododdin north of the Tweed. And Gododdin was specially vulnerable, for even though the line of the Tweed might be manned against Bernician crossings, this British kingdom was equally exposed to coastal invasion. The Bernicians held at least Bamburgh and Lindisfarne, which gave not only control of the east-coast sea-routes and the means of contact with Deira, but the essential bases for northward attacks by land and sea. If that situation existed at the present day, Bamburgh and Lindisfarne would be the prime targets for bombing from the air. Nelson, in his time, would have subjected both to naval bombardment, and Lindisfarne to blockade. The besieging of Lindisfarne surely shows us that Urien and his allies (coming themselves from the sea perhaps?) were attempting to use the resources of their age in a similar way and to the same end. Clearly they won at most a brief delay in the Bernician advance over the Tweed. The Bernicians meanwhile were no less aware that to achieve lasting security they had to gain control over the lands north of the Tweed. The extension of 'Anglo-Saxon' dynastic power over the Tweed to the Lothians was a crucial issue that obsessed all the parties involved. The British attack in the south, at Catraeth, failed too: Bernicia was not to be cut off or contained either way.

Aethelfrith is marked out by Bede as the king whose new conquests of British territory were especially significant. Ida and his successors had already enjoyed possession of TyneTweed Bernicia: southern Deira long previously had been subject to Anglo-Saxon settlement; so where can Aethelfrith's remarkable conquests have lain save outside and around the original bounds of Bernicia? It has been authoritatively shown that Edinburgh itself fell in $638,{ }^{346}$ and earlier Bernician aspiration to northern conquest need not be doubted. Is it not extremely likely then that not the least part of Aethelfrith's inheritance was mastery over a frontier along the Tweed Valley? Possibly he was actually the first to establish a Bernician bridgehead north of the Tweed. Only in some such terms can we explain the direct concern of Mynyddawg, and the choice of Edinburgh as the centre for expensive hospitality given to a war-band that was unsuccessfully to fight in northern Yorkshire.

At all events, the Tweed Valley and the lands around the southern shore of the Forth estuary certainly became part of Bernicia within the period 590-640 (still without benefit of any recognizably Anglo-Saxon horde). For some time the Tweed must have been an armed frontier, a focus for local hostilities and in some sense a battle-zone (Fig. II4). Whether or not the insecure identification of the modern Dawston in Liddesdale with the site of the battle of Degsastan, circa 603, can still be entertained, ${ }^{347}$ the bounds of the northern battlezone can be charted with some degree of probability. The line is likely to have run south-westward from the Tweed estuary to the high ground that encloses the Tweed basin. It could be drawn between two Roman points.

On the one hand, the Roman road that leads to Springhead, on the outskirts of modern Berwick, indicates that there was an established harbour or naval base on the southern shore of the Tweed estuary.

On the other hand is the Trimontium/Melrose area, where the Tweed breaks into such a remarkably long series of rapids that the writer was once tempted to consider the possibility that Catraeth lay thereabouts. That notion discarded, the area remains of considerable interest. Early recognition of its strategic importance is demonstrated by a major native oppidum and by the successive Roman forts below it ${ }^{348}$ (where the route to Lyne and Castledykes, to the west, meets the road that runs north-east from Corbridge to Inveresk, close to Edinburgh). Kelso, at the junction of the Teviot and the Tweed, where the latter's valley begins to narrow, lies in a forward position to an attack from the east. Its former identification with Calchvynydd is not to be pursued, now, and that Cadrod or Catraeth who once was supposed to have ridden with the Men of Catraeth seems to have lost his claim to historical existence. Nevertheless, since Trimontium, in earlier times, lay in the lands of the Selgovae, it is likely that the easternmost extension of the Selgovian area ended hereabouts - a wedge, perhaps, that stressed the natural cleavage, eastwards along the Tweed, between the northern and southern parts of the Tyne-Forth region. Here, too, is what may be the eastern edge of a cultural region distinguished in the fifth and sixth centuries by the presence of inscribed memorial-stones. Moreover, the general area is remarkable for several large fortifications to which a strong presumption of 'Dark-age' date attaches. The forts at Rubers Law and Peniel Heugh in Teviotdale, between Hawick and Kelso, are outstanding examples, and the Dunion, near Nisbet, lies in the same area. ${ }^{349}$ Linear earthworks also are present in the Tweeddale-Teviotdale-Liddesdale zone, as for instance the westward-facing 'defensive frontier' near Melrose that caught Crawford's eye. ${ }^{350}$ None is decisively dated, but there is a consensus of informed opinion that one of them, flanking the northern foothills of the watershed between the tributaries of the Teviot and those of the Liddel Water, is a boundarywork most probably attributable to a phase of stabilization during the course of westward 'English' expansion from Bernicia. ${ }^{351}$ The formerly reputed site of Degsastan, at the head of Liddesdale, lies three miles distant from its eastern end. The interesting name Catrail which is attached to this boundarywork appears not to have been recorded until the seventeenth century.

In adopting the identification of Catraeth with Catterick in Yorkshire, we are left with one difficulty that has been pointed out by Jackson. ${ }^{352}$ The early Taliesin poems indicate that Catraeth lay in territory that had belonged to Urien of Rheged, and there is justification for Jackson's doubt that Urien's kingdom can have extended so far as Catterick. That point doubtless can be resolved, and may be set aside. The location of Catraeth in Yorkshire is at


Fig. 114. The battle-zone of the Tyne-Forth province circa 575-603.
least consistent with the proposition that already in the sixth century the northern and western bounds of Bernicia were not easily to be breached. Unless we are to cut against the topographical grain of history, it would seem that the Catrail-Trimontium-Kelso-Tweedmouth line must have been in some sense a battle-zone even before the Men of the North set out. The western end of that line of probability brings us securely into what had been the sphere of Urien's influence. If the war-band from Edinburgh was indeed skirting the bounds of established Bernician power, it will have passed through territory associated with Urien; in which case Taliesin need not have been totally wrong in suggesting a connexion between Catraeth and lands once held by Urien.

Draw an arc of 8o-mile radius on the map, with Bamburgh as centre: it will take in Catterick, Trimontium and Edinburgh in one sweep. The full circle will comfortably encompass all that is essentially Bernician in our view of Northumbrian culture and origins: it will be the outline of a dynastically 'Anglo-Saxon' sphere which in the sixth and early seventh centuries can produce no evidence of Anglo-Saxon settlement. The struggles between Bernicia and its neighbours must be regarded as interdynastic contests in which one Celtic army fought another. The sources of early historical testimony are themselves dynastically slanted and tend, in their political terms, to confuse ethnic identities. Even if we were arbitrarily to suppose that Bernicia took its rise from an unrecorded Anglo-Saxon military conquest, that would have interesting consequences when the Anglo-Saxon war-band would necessarily have to be so tiny as to leave such puny positive or negative trace of its existence: it would seem even in that case that Bernicia was a ripe apple ready to drop. In any case, it is clear from the archaeological evidence that Bernicia stood in various respects distinct from its British neighbours before and long after 547 ; and in the last analysis it is Bernicia's readiness to accept, sustain and support an intrusive dynasty that is the nub of the problem.

The idea that the overlordship of Bernicia was vested in a numerically inconsiderable Anglo-Saxon élite is neither new nor unacceptable to historians, but the full range of its possible implications has not been explored. The outcome still has not been logically related to its cause.

The present attempt to frame a hypothesis that will more economically reconcile all the available evidences rests on the assumption that Ida simply 'succeeded to the kingdom', as Bede asserts, and truly became a key-figure in the dynastic history of Northumbria. That assumption will relieve us of all need to invent an Anglo-Saxon army, stubbornly resistant to archaeological discovery, or crucial battles unknown to history. But it must still be asked whether any plausible context can be found for Ida's easy accession to power.

The background, if not the answer, to that question appears to lie in the local measures taken for the defence of Roman and immediately post-Roman Britain, in the fourth and fifth centuries.

First among the enemies of Rome's northernmost province were the Picts, and so the intramural region found itself a half-land between two adversaries. The pressures to which this
situation exposed it must have moulded its history. There is no reason to reject out of hand Richmond's hypothesis that the British kingdoms of Strathclyde and Gododdin were instituted or recognized by an act of Roman policy, as buffer states maintaining the old Antonine frontier-line along the Clyde and the Forth. The same period, that successively of Theodosius and Stilicho, sees the devolution and military decline of the Hadrianic frontier-system; but in Yorkshire the grand stratagem of the Saxon shore is enhanced by new signal-stations, allowing movements by sea to be watched and reported.

Coastal intelligence and naval patrols were crucial in the defence of Roman Britain in the fourth century, when there was need to deploy reduced land forces with speed and accuracy. It is clear from written testimonies that at this time the Picts were launching attacks on Britain from the sea. ${ }^{353}$ Even if there were not specific references to their ships, it would be difficult to explain their far-ranging activities in the south (as, for instance, in the Germanus episode) as operations carried out from start to finish on land; and the barbarica conspiratio ${ }^{354}$ of 367 , between Picts, Scots and Saxons, seems credible only when viewed as the result of maritime contacts between three seafaring peoples with interests and aggressive techniques in common. On the whole, it seems unlikely that the Vikings were the first to head north for home in boats laden with plunder from Britain's most rewarding lands. In the fourth century, the enemy came by sea, and late-Roman defensive strategy acknowledged the fact.

The attempt to maintain any form of control over the Antonine and Hadrianic landfrontiers would have been ludicrous if, meanwhile, the Picts had been allowed freely to circumnavigate them. Hence, although the northernmost coastal signal-stations that are certainly known lie to the south of the Tees, the sea defences of northern Britain surely cannot have ended abruptly there. The eastern sea-lanes from the Tees to the Tyne estuary, and thence to the Forth, must also have been watched and patrolled. Intelligence from the east coast of the intramural region was of the utmost importance to Roman Britain, and thus late-Roman authority had vitally pressing reason to preserve a favourable diplomatic relationship with the British powers between the walls. Manaw, at the east end of the Antonine line, held the key to the Pictish problem, and if - as would appear likely both from its history and its archaeology - it was party to some mutually beneficial arrangement with agents of the Roman province, the coastal lands between Forth and Tyne must have been intimately involved in any scheme designed to keep the Picts in check.

Early warning of the setting-out of Pictish raiders was needed above all if they were to be intercepted. That could be ensured only by sea-patrols receiving swift intelligence from watch-points and beacons on shore. ${ }^{355}$ The Tyne estuary could offer a suitable primary base for naval forces, and one that was closely in touch with developments along the Hadrianic line (South Shields was earlier used as a supply-base for the Wall ${ }^{356}$ ); and a forward base was readily to be found in the Forth estuary (as, for instance, at Inveresk). Halfway between them were the island of Lindisfarne, with its harbour and small citadel, and the greater, coastal citadel of Bamburgh.

The results of preliminary excavations at Bamburgh ${ }^{357}$ indicate that use of its natural fortress began in the pre-Roman Iron Age and continued through the Roman Iron Age into the post-Roman period. Overlying a series of deposits dated to the period from the first to the third century AD (by Romano-British coarse pottery and samian ware) are layers that
include 'native' pottery alone. Those again are sealed down by massive deposits of charcoal and fire-reddened clay, focused around a small knoll which is the seaward terminal of the rocky citadel. ${ }^{358}$ The evidence from a limited archaeological exposure suggests that the knoll might conceivably have been the site of a beacon. A sherd closely akin to Yeavering's Class III pottery ('Anglo-Saxon') was found overlying the uppermost fire-layer, and was itself sealed down by layers dated to the period from the seventh to the fourteenth centuries. It appears that the Bamburgh citadel may well have been occupied continuously throughout the first millennium AD. The mere possibility of its having been the site of a beacon after the Roman withdrawal to the Hadrianic line suggests one means by which it could have fallen or been given - into Anglo-Saxon hands before 547. At no time can Bamburgh's strategic potentiality have been more important than in the period 200-500.

Archaeological evidence has in recent years increasingly compelled us to believe that Germanic foederati were introduced to eastern Britain in the fourth and fifth centuries, ${ }^{359}$ as defensive reinforcements. That is, of course, wholly consistent with all that is known of Roman policy on the frontiers of the Continental provinces; and suspicion that the Litus Saxonicum owes its name to the employment of 'Saxon' defenders ${ }^{360}$ has grown the stronger accordingly. Notorious raiders, nevertheless, the Germanic peoples of the north European coastlands had early demonstrated piratical expertise. They were superbly equipped by their seamanship and disreputable experience to act as coastal defenders. What better agents could have been found to patrol the waters of the north?

In granting some degree of respectability to the tradition of Hengist and Horsa, we have - if not unwittingly, perhaps reluctantly - put ourselves well on the way to acknowledging also that the Octha and Ebissa, associated with them by Nennius, ${ }^{361}$ are not unlikely to be at least symbolic of a historical truth. The Historia Brittonum says that they were offered lands in the north, near the wall called Guaul, in return for services to be rendered against the Scots. The account of their journey by sea is obscure and probably quite unreliable in particulars, but in essence the story could preserve a memory of early Anglo-Saxon foederati ranging the coastal waters around and beyond the intramural region from a base or bases near 'the Wall'. True, the Nennian account relates these events to the fifth century, not the fourth; but the crucial point is that it is as a seafaring, pro-British defender that the Saxon is there presented.

Early or late, the presence of a relatively small body of seaborne scouts, based in the north for the interception of impending Pictish attacks on the coast of Roman Britain, would leave little archaeological trace on land. Such material evidence as might remain would be restricted to one or two shore-bases. Moreover, whereas a land army of AngloSaxon foederati would leave behind - not least in its burials - a tell-tale trail of equipment and adornments (and possibly pottery), crews of Germanic sailors would carry and deposit far less of archaeological consequence. Their dead would be comparatively few and would be buried, if not at sea or on the beaches, at or near the main base; and probably without many of the characteristic objects that bring the remains of Anglo-Saxon land-warriors and settlers to archaeological recognition.

The effectiveness even of a single, seaborne, Anglo-Saxon war-band in coastal defence could be sufficient to explain the Bernicians' acceptance - before 547 - of English warriorleaders (the commanders or counts, as it were, of their Saxon Shore), and, in the fullness of
time, of English kings. Whereas the orthodox hypothesis, which seeks to account for the fact of Anglo-Saxon power by postulating a long process of military conquest, is invalidated by the general lack of characteristic early Anglo-Saxon burials and objects within Bernicia, this vaguer but far less unlikely supposition is at least consistent with the archaeological evidence, both negatively and positively.

Fig. 5 shows that the northern frontier of metalwork typical of the pagan Anglo-Saxon follows the line of Hadrian's Wall from the mouth of the Tyne, which was noted above as the most likely primary base for the operation of northern sea-patrols. The pieces in question are typical cruciform brooches. The earliest of them, at Corstopitum, need be little if at all earlier than 500, and the rest are of typologically later form; but nevertheless the series is relevant to the present issue. Covering as it does the half-century before and the half-century after Ida's accession at Bamburgh, it tends to point the significance of the persistently blank northern area of the map. Further, it recalls Nennius's statement that lands 'near the Wall' were the reward for the services rendered in the north by Octha and Ebissa and their seadogs. However garbled in names and detail that story may be, it is of particular interest that the Corbridge cruciforms are of just such a date as would allow of their having been worn in the old age of those shadowy adventurers and their followers, or in the prime of their sons. It is certain, at all events, that there was Anglo-Saxon activity around the Tyne estuary and valley early in the sixth century, and the evidence as it stands strongly suggests that even then the Hadrianic frontier was still in some way a significant boundary. The possibility remains, moreover, that the visible evidence of the 500's reflects a pattern established for the defence of Roman Britain a century or more earlier.

The story of Octha and Ebissa is not of course the only historical indication that Germanic mercenaries were active on the fringes of the intramural region before the sixth century. Attention must be turned to the testimony of Gildas, the primary surviving source (and later to Bede's version of it). Gildas's account may relevantly be taken up at the point where he speaks of the Pictish and Scottish attacks to which Britain was exposed when Maximus drained it of troops. He describes two separate episodes in which Roman aid is given in northern Britain, and refers to Pictish use of naval forces in both. ${ }^{362}$ For all his anachronistic blunders, he rightly indicates that the Antonine military frontier was ultimately abandoned as the northern boundary of Roman Britain in favour of the Hadrianic line. Further, he associates with the final defensive scheme the building of towers on the southern coast 'at regular intervals, commanding a view of the sea', and mentions the presence of Roman ships in the vicinity. Thereafter, in his story, ${ }^{363}$ Rome finally abandons Britain; and the Picts and Scots, with greater boldness than ever before, seize all the northern country as far as Hadrian's Wall. Ill-equipped defenders of the Wall are eventually overcome and flee southwards, pursued by the northern victors. A famine ensues, and then the Picts and Scots are defeated. The Scots go home; the Picts for the first time settle down in the farthest part of the island. A period of British prosperity follows; and then there comes a rumour that all the old enemies of Britain have risen to take possession of the island. The counsellors of Britain, headed by a superbus tyrannus, bring the Saxons into Britain to fight the northern foes. The first contingent of Saxons is followed by another and afterwards all revolt against their British masters.

Gildas omits all mention of the actual activities of the Saxons in the service of Britain.

He says only that they were introduced to repel the invasions of the northern peoples and that they landed on the east coast; and, although careful reading of his words discloses that some time elapsed between the arrival of the Saxons and their revolt, he is obviously at pains to show the revolt as the immediate and predictable result of the 'desperate and cruel darkness' that possessed the minds of the proud tyrant and the counsellors when they brought the wolf into the fold. Gildas, then, is far from being disposed to point out any benefits that may for a time have accrued to Britain from that arrangement. But Bede, in his version of the same events, ${ }^{364}$ makes what seems to be a significant departure from Gildas's narrative in introducing the following statement about the Anglo-Saxon foederati:

Tum subito inito ad tempus foedere cum Pictis, quos longius iam bellando pepulerant, in socios arma uertere incipiunt.

The possibility that Bede was wrong in specifying that it was with the Picts that the Saxons went into league must be noticed, if only to be dismissed. Bede, like ourselves, had to rely largely on Celtic records for information about events in and before the sixth century. By his time, if not from the first, those accounts had been pressed into the mould of the western-British cause. The western chroniclers of the British world were dedicated to the glorious image of heroic pan-British unity in the face of Saxon and Pictish barbarism. By erosion and elision, what clearly must have been a complex counterpoint of events and allegiances had been reduced to a simple theme that suited the nostalgic mood of a later Celtic audience. Any memory of British perfidy, of treachery to the notionally common cause, could possibly be abolished by agreement - just as in Bede's milieu the history of the Christian front in Northumbria could be made to appear unbroken by attributing the year of apostasy, under Eanfrith and Osric, to the reign of Oswald 'beloved of God'. 365 The British of Bernicia were the first to accept Anglo-Saxon rule, and so they began the process that steadily disintegrated the free-British world of the north. Thus the Bernicians would be traitors; but, while it might at first be satisfying to Celtic emotions privately to revile them somewhat after the manner of Gildas, the apologetic ends of later British politics would have been better served by chronicles that obscured the identity of the traitors. All Bernicians, once they had acquiesced in Anglo-Saxon overlordship, could perhaps be counted as 'Saxons'; it was the fashion, anyway, to write history in terms of kings. A comfortably ambiguous form of reference - like Aneirin's 'men of Bryneich' - was ready to hand. It is possible that Bede himself could have been misled into believing that the British of the intramural region were necessarily always anti-Saxon to a man; and, faced with a vague statement that 'people north of the Wall' (or 'the northern enemies' cited by Gildas) had aligned themselves with the Saxons, he might have concluded that no other northern people than the Picts could possibly be implicated. Hence it is not utterly inconceivable that when in this instance Bede wrote 'Picts' he should have written 'Bernicians', and that his error denied us historical notice of the first Anglo-British entente, north of the Tyne. ${ }^{366}$ Nevertheless, Bede is otherwise so discriminating in his use of the term 'Picts' that it is advisable to grant him the benefit of the doubt, and not least because it would seem that what impelled him to supplement Gildas's narrative was the conviction that his additional evidence was authentic. Proto-Pictish and Fictish aspects of Gododdin's territory (pp. 288 and 392, Fig. III) suggest that the real frontier between the 'Saxon' and 'Pictish' spheres of influence may have lain around the Tweed. It is still possible that the story of the Saxo-Pictish treaty stems from
the time when Bernicia first decisively detached itself politically from the Tweed-Forth world.

The essence of Bede's testimony is that the Saxons performed in the north the very service for which they had been introduced. They repelled the Picts, who from their geographical position must always have constituted the main threat to British security. When the accounts of Gildas and Bede are conflated, the story that emerges is seen to consist in three episodes. First, the Picts are pushed back to the north by the British; then there is the period of British prosperity; and finally, when the Picts once again move southward, they are driven back by Anglo-Saxon foederati and subscribe to a treaty of peace. Since the southern frontier of Pictland, in both earlier and later times, appears to have been (however approximately) conterminous with the Antonine line, the Germanic foederati who repelled the Picts must at some point have operated in the lands (or more probably on the coastal waters) of the region north of the Hadrianic wall.

The chronology of these events poses a notorious problem, which is today even more difficult to resolve than before. Although the written evidences tell of Germanic foederati brought to Britain in the mid-fifth century, they make no specific mention of the AngloSaxons who were introduced into its south-eastern lands, as archaeology now shows, probably before the end of the fourth century. It is possible of course that Gildas actually based part of his chronology on his false belief about the building of the two walls. He knew that the walls were in place before foederati were introduced. but thought that they were constructed in successive phases after the departure of Magnus Maximus. Consequently it would seem to him impossible to fit his information about the foederati into the fourth or early fifth century. Perhaps regarding a period of prosperity as being irreconcilable with the presence of Anglo-Saxons in Britain, he laid the responsibility for their invitation on a later generation - which, in any case, suited the moralizing purpose of his British book. But while he may thus unknowingly have transferred the events of one century bodily to the next, it is more likely that he simply condensed what was in reality a long and complex process into the short span of its final phase. ${ }^{367}$ To Gildas and Bede, the appeal to Aetius offered probably the only secure historical mooring for the vague traditions they had inherited. To our generation archaeology has shown that the first settlement of Anglo-Saxon foederati is likely to have been a response to the events of 367 and 383 ; but it remains possible that (once the precedent had been set) later use of the same expedient by a native prince could have followed, as Richmond has suggested, ${ }^{368}$ as part of the general pattern of devolution.

It is obvious enough that Gildas's narrative suffers from grave confusion and obscurity in its chronology; and the scope of its geographical range is equally uncertain. There is perhaps rather more than a mere possibility that much of his account of fifth-century events was derived at second-hand from a northern British source. If so, Gildas's account of northern foederati, about the middle of the fifth century, might be reconciled with the archaeological evidences of earlier foederati in the south by postulating that two successive phases are involved. In the first, unrecorded or misunderstood by Gildas, late-Roman authority introduces Anglo-Saxon foederati into eastern Britain from Kent to Yorkshire by 400 , with an outstanding focus in East Anglia. ${ }^{369}$ In the second, the abandoned British extend the same expedient to the coastal areas north of the Tees in the middle of the fifth century (to counter the 'northern enemies', as in Gildas's story). In that context, any ensuing Saxon 'revolt', in
the Tyne Valley or in Bernicia itself, could be the prelude to Ida's accession. Here again there would be no warrant for postulation of an Anglo-Saxon invasion. The event need be no more than a palace revolution at Bamburgh, engineered by a small group of alien officers that had already been officially established there for some time (marriage of one or more of them into the native royal family, in or before 547 , could offer an even simpler explanation).

That notion derives a certain plausibility from its consistency with the relatively late date of the Anglo-Saxon brooches found along the line of the Hadrianic frontier. It offers, too, a reasonable explanation for the crucial involvement of a British leader from the western or northern Highland Zone in these events. The superbus tyrannus, identified by Bede as Vortigern, would naturally, as a paramount ruler among the confederating free-British powers, be directly concerned with the problems of security in and around the intramural region. The idea depends, nevertheless, on what may be to many an unacceptable reading of the De Excidio. Judgement must be suspended until such time as archaeology provides further illuminating data for the fourth and fifth centuries (as soon it will). Meanwhile it is safest merely to acknowledge that the testimonies of Gildas, Bede and Nennius all support the conclusion that Anglo-Saxon foederati were employed not only in the south but also in the north of Britain.

What is relatively clear from the written evidences is that after the middle of the fifth century, eastern Britain was no longer troubled by the aggressions of people north of the Hadrianic wall, other than those of the Bernicians during their period of political expansion (and, of course, Mynyddawg's attack on Catterick). Further, it has to be noted that there is no record of conflict between the Pictish and Bernician kingdoms until late in the seventh century; on the contrary, the circumstances of Oswald's exile suggest that there was harmony between them in his time, and there is even a suggestion of royal intermarriage. ${ }^{370}$ Hence there are good grounds for accepting Bede's statement that the foederati quelled the Picts (where all others had failed), and his assertion that a Saxo-Pictish treaty was then arranged offers the most natural explanation of the later situation. Picts and Saxons appear as parties to the barbarica conspiratio of 367 ; and they are again shown in offensive league at the time of Germanus's second visit to Britain, in or about 447,371 fractionally earlier than the conventional date for the arrival of the mysterious Hengist and Horsa but in the crucial period of Vortigern nevertheless. Faith in those fifth-century dates can at best be minimal; yet it still seems possible to ask whether Vortigern (or another superbus tyrannus), inheriting a desperate situation resulting from the making of common cause between earlier Germanic foederati and their nominal foes, might not have clutched at the chance of relief offered by new and apparently uncorrupted Germanic allies, and so have earned through their ultimate defection all Gildas's reviling words.

It may very well be that the solid meat given Continental, British and Saxon dressings by Constantius, Gildas, Bede and Nennius is simply a generous cut from the salted beef of local tradition. Such fare must be judged by the evidence of its effect. In this instance it does not go badly on the palate of reason. Archaeology shows that there were 'Anglo-Saxons' north of the Humber in 'late-Roman' and early post-Roman times: the historical testimony explains why they were there, and indicates the consequences of their actions. They were originally foederati who removed the problem of the Picts and turned that success to their own ad-
vantage. Within the century following the incidents associated respectively with Germanus and Vortigern, the balance of power in the Tyne-Forth province is seen already to be changing - Bernicia rises, Gododdin declines. History reveals the leaders of the Tyne-Tweed and Tweed-Forth regions at loggerheads in the second half of the sixth century: archaeology points to an older tendency to division. History shows Gododdin then still to have been dedicated to the British cause, and Bernicia led by Anglo-Saxon kings; but archaeology can find no sign of Anglo-Saxon 'military' invasion in Bernicia, and finds evidence of British continuity there. The Anglo-Saxon kings of early Bernicia are, then, merely the historical representatives of a small minority, an élite, whose overlordship of the Tyne-Tweed region can only have been won without any widespread native opposition. No battle figures in Bede's notice of Ida's kingship in 547; and certainly if Anglo-Saxons had earlier held the local balance of the Pictish problem in their hands there would have been good reason for early Bernician-British acceptance of their leadership.

The main threads of this argument may now finally be drawn together in the form of a hypothetical reconstruction of the unknown events that must lie behind Ida's accession. Obviously, several variations are possible; but let it be assumed that the most likely AngloSaxons first to venture significantly to the north of Yorkshire were indeed the crews of patrol-ships charged with the early interception of Pictish seaborne raiders - Germanic agents suitably extending the defensive mechanism of late-Roman Britain (p. 301). Without an effective naval force the newly contrived buffer zone held by Manaw and Strathclyde will be useless and ridiculous. The supreme late-Roman need is for co-ordination of all antiPictish forces and expedients along the whole length of the east coast from the Forth to the Tyne and beyond. There is perhaps a forward naval base in the Forth estuary near Edinburgh (Inveresk?) at the east end of the frontier between the intramural Britons and the Picts - at the political heart of Gododdin. While Gododdin is nothing if not truly British and rejoices stiff-necked in its Celtic autonomy, it perhaps enjoys the unctions of late-Roman diplomacy, its own romanized pretensions and certainly some oddly Pict-like wealth in silver derived from Roman Britain (p. 288). It is well aware that its new-found power and status derive from and can be sustained only by its ability to compromise with Pictland. Its land-forces, in combination with the sea-patrols that are its link with the troubled Roman south, are possibly sufficient at a pinch to impress and temporarily to restrain the Picts; but, if there is to be real security, any existing diplomatic links with its barbaric northern neighbours must be maintained and if possible strengthened. The rulers of Gododdin grow more and more preoccupied with the northern aspect of their responsibilities. Politics, diplomacy, culture, become focused on the northern frontier outpost beside the Forth. This perhaps is its undoing: Gododdin has prospered from the problem of the Picts, but is so ambivalently committed as ultimately to suffer not only by the means but by the very fact of its solution.

The province has a natural line of cleavage, the Tweed, which in these circumstances is further accentuated by the growing differences in outlook and aspiration between the regions it divides (pp. 286-9I, Fig. III). The Tweed-Tyne region is a stronghold of pagan and apparently non-literate culture, and certainly has an archaic core. Nevertheless, in the landbase of Bamburgh and the sea-base of Lindisfarne, it holds the major coastal control-point
which is the halfway house of the sea-patrols (pp. 300-303). Various factors have combined to concentrate all the more progressive elements of its society along the coast (pp. 16-27), where they are particularly exposed to newer ideas and influences from the south as well as those upheld by brothers or cousins in the north. The farmers and fishermen of the Coastal Zone are caught up, willy-nilly, in the general pattern of defensive and offensive ploys; and the local leaders and officials of this new native world are of course deeply involved in it and commit themselves as they think expedient. The sea-patrols are the key feature of the situation. The future of a failing Roman Britain and its British penumbra depends on them: they bring news of the outside world, and they are the main link between the powers north of the Tweed and the authority still clinging to the lands south of Hadrian's Wall. Small wonder, then, if Anglo-Saxon captains of those patrols become influential in the coastal lands around Bamburgh; if they are early recognized as leaders, and become part of native officialdom on shore. Less surprising still it must be if they themselves - seeing the growth of AngloSaxon power in the south, and the weakness of the ties between the two halves of the British intramural territory in the north - take full political advantage of their powerfully Janus-like position and exploit or actually engineer a secession through which they eventually become the overlords of Bernicia. The rulers of the north and west find themselves powerless to prevent such a move: they are forced to accept the new state of affairs - and they console themselves, perhaps, with the thought that this is after all little more than a formalization of the earlier divided situation. Accordingly, in 547, the Tweed is recognized as the frontier between British and English lordships, and the worlds of Edinburgh and Bamburgh co-exist for some decades with little or no bloodshed. Then the day comes when the Bernician dynasty having consolidated its kingdom, looks across the Tweed, conceives new ambitions, and in or about the 580 prepares an invasion fleet, at Lindisfarne, which will land units of its native army on the coast to the north of the estuary. The British princes of the north and west have anticipated, or are at least quickly aware, of this threat to their common interest, and the combined forces of what is by now a pan-British political faction launch an attack on Lindisfarne (p. 293). At best they postpone the evil hour, and meanwhile internal dissension weakens their British alliance. Eventually the Bernicians (possibly under Aethelfrith) gain a firm bridgehead north of the Tweed, and about the turn of the sixth and seventh centuries the British king at Edinburgh realizes that only by decisive action can the actual or threatened erosion of his territory be checked. He rallies all the supporters he can find among his neighbours (whose own interests and security are threatened too); he pays the feast-price, and the war-band of the Gododdin sets out. It is too late for a purely naval action (it was essayed at Lindisfarne, and failed) to be effective, and now all must be staked on such an attack overland as might isolate or weaken Bernicia. That desperate last throw fails. Thenceforth, the Bernicians are left free to pursue their expansionist aspirations, in the north at least, and find themselves in control of Edinburgh before the middle of the seventh century.

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It would be idle to suppose that the hypothetical reconstruction of events offered here approaches closely to the actual truth in all or most of its particulars, and it is no part of the writer's intention to suggest that it does. Decades of purposeful archaeological investigation
must pass before we can hope to understand the actual mechanics of the process by which the lordship of Bernicia passed into Anglo-Saxon hands. The purpose of this discussion has been simply to show, on the one hand, that the accepted idea of a Bernicia crudely won by sword and slaughter is wholly at odds with the archaeological and institutional evidence; and on the other, that the same evidence is open to a quite different kind of interpretation.

What has been set out here is no more than was claimed at the outset. It is but a rough clearing of the way to a new hypothesis, and it is offered with more humility than may be apparent. The writer, in addressing historical colleagues, might well say indeed, as Pacatus did to Theodosius, 'If ever . . . an orator destined to speak in thy presence had reason to tremble, it is I.' But diffidence must not be allowed to slide into timidity, and it would be plain cowardice to let the discrepancy between history and archaeology pass any longer as a trifling puzzle. History, in this period and region, no longer exists in a vacuum; and where before the number of its documents seemed to be known, it can now hope to be enriched by countless evidences that still lie in the ground. The initiative has passed for the moment to the archaeologist, who must find and interpret what is written in the soil. He questions the earth as the agent of history, and if his questions are to be relevant they must spring from realistic hypothesis. Certainly the archaeologist cannot work on the basis of a theory that virtually ignores the significance of archaeological evidence.

The surviving historical sources (which for the most part are considerably later than the events they record and tend to identify the participants dynastically rather than ethnically) give us a line of Anglo-Saxon kings in Bernicia, and there must have been at least some cultural Anglification of the Bernician court. Otherwise it could be supposed that Yeavering and its region knew no actual Anglo-Saxons beyond a handful of early immigrants, quickly absorbed. One au-pair girl could, after all, have made and broken in a week all the 'AngloSaxon' pottery that is in evidence in Bernicia before and during the time of Edwin. In the final analysis it is the patronage, ambitious exploitation and development of a native school of builders which most clearly reflects at Yeavering that new impetus which the historical, dynastic view of Bernicia requires.

Nowhere in Bernicia is there any evidence of Anglo-Saxon invasion, of any check or interruption. Edwin and Paulinus themselves will seem to have been but timid intruders when a careful reading of Bede will show that the building of churches, north of Catterick, was apparently an impracticable proposition before the age of Oswald. All that is significantly Anglo-Saxon in Bernicia, in the time of Aethelfrith, is a dynastic thread that leads back to Ida. Accordingly, it is possible now to release the archaeology of Ad Gefrin from an arbitrary restriction of its time-span.

At the beginning of this discussion, the chronology of $A d$ Gefrin's structural phases was set conscientiously within the limits imposed by the conventional interpretation of Bernician history. On the assumption that the Anglo-Saxons in Bernicia were invaders still pent up on the coast until the time of Aethelfrith, the beginning of Ad Gefrin could not be set earlier than about 6oo. As the equation of Phases IIIC and IV with the reigns of Edwin and Oswald, respectively, was evidently sound, the starting-date of IIIC had to be taken as another
roughly fixed point. Hence, all the structures belonging to Phases IIA, IIB and the possibly complex Phase IIIAB had to be fitted implausibly within the span of about two decades (say $600-\mathrm{r} 6$ or, at a stretch, 595-620). (Figs $71-9$, inclusive, refer.)

The result was an excessive compression of those early phases of the township's history, a denial of archaeological and practical probability. The pressure could not be relieved by a later dating for Phases IIIC and IV, in which history and archaeology agree so convincingly. The source of the difficulty was the obligation arbitrarily to hold the beginning of Phase IIA to a date circa 600 . That difficulty can be removed by acceptance of Bede's statement that Anglo-Saxon kingship in Bernicia began in 547: given that, the early structural phases of $A d$ Gefrin will be as illustrative of history as the later. When did Phase IIA really begin?

The problem must be worked out backwards from the Edwinian Phase IIIC. The field may be explored by asking first what is the earliest possible dating for each of the preceding phases. Here a natural limit is set by the potential durability of the structures involved.

If we may judge from the condition of the modern reconstruction of a slighter but sufficiently comparable building at Trelleborg, ${ }^{372}$ some traces of superficial decay may have shown themselves within 25 years, and repair or replacement of some rotted timbers might have become 'advisable' within $35-50$ years; but (lacking any evidence for mechanical weakness in design) it seems unlikely that there will have been any compellingly practical reason for total replacement in under $5^{0-75}$ years. Such analogy is of course inexact, since allowance must be made for local conditions; but the Trelleborg reconstruction does interestingly demonstrate the obvious probability that the physical decay of a wooden building will set in first at the point where the timbers enter the ground. The durability of timber structures above ground is shown by the wall-staves at Greensted in Essex $;^{373}$ by innumerable medieval church roofs; and by not a few flimsy garden-houses and boat-sheds of the Victorian age that still survive. Clearly any timber building given reasonable care and timely replacement of its failing members could survive even longer than George Washington's axe . . . as long even as the exteriors of stone-built Gothic cathedrals.

The inherent weakness of any timber structure based on earthfast posts is evident, however. Let us now, then, muster every practical argument for the shortest possible chronology of Ad Gefrin's earliest structures. Both the builders and the excavator of Ad Gefrin could testify from practical experience that the outstanding 'local condition' at Yeavering is its exposure to destructively strong winds. The idea that the earliest buildings at Yeavering quickly became shaky is tempting; and so, perhaps, one might account for the steady progression from shallow to deep foundation-trenches between Phases IIA and IIIC. That idea receives no support, however, from the reversion to a lesser depth of foundation in Oswald's Phase IV, and less still later. The strongest argument could seem to lie in the reencasement of Building $\mathrm{D}_{2}(\mathrm{a})$ within $\mathrm{D}_{2}(\mathrm{~b})$; but the notion that $\mathrm{D}_{2}(\mathrm{a})$ was then structurally toppling is denied by the demonstrable fact that $\mathrm{D}_{\mathrm{I}}(\mathrm{b})$ also survived, with lesser repairs, to be burnt down at the end of Phase IIIC. It could still not unreasonably be urged that the adoption of a trench-building technique increased the difficulties of piecemeal repair, and made total replacement at shorter intervals more likely. Nevertheless the structural differences between Yeavering's Buildings $\mathrm{A}_{4}$ and $\mathrm{A}_{2}$ and $\mathrm{D}_{2}$ (a) remain strikingly apparent, and require a considerable period for their evolution.

More direct attack on the problem can now be made. First it should be noted that Building $\mathrm{A}_{4}$ is more likely to be an early than a late feature of the Edwinian Phase IIIC. It was built before the reconstruction of the Great Enclosure took place, and lost its eastern palisade-enclosure in that process. The institution of Building $\mathrm{Ar}_{\mathrm{I}}(\mathrm{a})$, at the west end of the great hall's western enclosure, seems also to be a later event. Let us say, for the purposes of argument, that $\mathrm{A}_{4}$ was built circa 620 .

Between $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ (clearly products of the same school of carpenters, though probably of different generations) there is a quite remarkable technical development which seems unlikely to have been achieved in under two decades. It has been observed that such a building as A2 would have had a considerably longer 'natural' expectation of life. Even if we explain the replacement of A2 as the result of Edwin's aspiration to a Heorot-like hall of his own, it will be unsafe to assume that the potentially durable A2 was then still in its first flush: it could perfectly well have been already at least thirty years old. Accordingly, while it is clear that A2 stood in the time of Aethelfrith there is a possibility that it was actually built before his reign began. In the circumstances, it seems fair to express the hypothetical date of Building A2 in the formula $595 \pm$ ro. That, of course, will apply also to Building $\mathrm{D}_{2}(\mathrm{~b})$, within which $\mathrm{D}_{2}(\mathrm{a})$ - the temple - was encased.

If it is difficult to assert with any assurance that A2 must have been built in the reign of Aethelfrith, it would be harder still to argue that the pre-existing temple given a new shell at the same time was itself also built by Aethelfrith. Between the original temple, $\mathrm{D}_{2}(\mathrm{a})$, and its companion $\mathrm{D}_{1}(\mathrm{~b})$, on the one hand, and $\mathrm{D}_{2}(\mathrm{~b})$ and $\mathrm{A}_{2}$, on the other, there lies an immense technical advance: the development of a crudely massive, trench-built form of palisadeconstruction into that sophisticated technique of building that has been called here 'Yeaver-ing-style'. That evolution cannot have happened overnight; and we are further encouraged to conclude that the process was long and gradual when the nucleus of Yeavering's theatre (Building E) seems, if only in its better control of the solid-wall technique, to show some improvement on what was achieved in Building $\mathrm{Dr}_{\mathrm{I}}(\mathrm{b})$. There is an engineering change, too: the centre-posts of $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ and $\mathrm{D}_{2}(\mathrm{a})$ are absent from $\mathrm{A}_{2}$, although they are present in $\mathrm{D}_{3}$, which is in some sense a Grubenhaus. It is possible that that is an effect of Germanic influence - Yeavering's earliest Anglo-Saxon material (the pottery illustrated in Fig. 84) is after all associated with Building $\mathrm{D}_{\mathrm{I}}$ - but surely it would be absurd to suggest that $\mathrm{D}_{1}, \mathrm{D}_{2}$ and E did not originate well before the time of Aethelfrith? Those crucial structures which begin the making of a township around Yeavering's Great Enclosure will still stand unparalleled in the Germanic world.

It would not be extravagant to suppose that so remarkable a development as we see between the original temple and its later encasement might on all grounds require the passing of four or five decades, which would take us back close to the middle of the sixth century (when Ida 'began to reign'). But since in our curious academic convention it is less sinful an error to date too late than precisely as much too early, let us compress the gap between Yeavering's original temple and its first regal hall as sternly as we can. The notion that so much can have happened and developed in one decade is in practical terms preposterous. It will be more reasonable, if still perhaps somewhat over-economical, to take two decades as the shortest span that can seriously be entertained. Building A2 has been given the experimental date $595 \pm$ ro. The construction of Yeavering's long-cherished
temple can hardly be set later than $575 \pm$ ı. If there is merit in a late dating, that arithmetic is likely to prove virtuous.

The evolution of $A d$ Gefrin was evidently a long and peaceful process that began before the time of Aethelfrith, and the inception of the township must be thrown well back into the sixth century. Aethelfrith, like Edwin after him, may have stimulated but clearly did not interrupt the course of 'native' development. Let it by all means be argued that it was the advent of a new and dynamic dynasty which brought about such a surge of new activity at Yeavering: the facts will remain that the first products were buildings in a native tradition, that those buildings can scarcely be attributed to so late a king as Aethelfrith, yet that theirs is the period which provides the earliest evidence we have for the presence of Anglo-Saxons in Bernicia.

Let us, even at this eleventh hour, briefly but conscientiously try to overthrow the usurping idea that it was Ida rather than Aethelfrith who was the begetter of the AngloCeltic situation in Bernicia.

There is a broad but nevertheless secure upper limit to Yeavering's history, in that its abandonment must take place under kings later than Edwin yet well before the time of Bede. That in itself inhibits any attempt to shift the whole sequence of events bodily to a slightly later time, but the effects of such a move may nevertheless be noted. Aethelfrith's hall (A2) becomes Edwin's; Edwin's (A4) becomes Oswald's, and so on. That leaves Aethelfrith without a hall at Yeavering, and allows him to be responsible only for the first phase of the temple, Buildings $\operatorname{Dr}(\mathrm{a})$ and (b), the large Grubenhaus $\left(\mathrm{D}_{3}\right)$, and the nucleus of the assembly-structure. So far this arrangement will be pleasing to the orthodox, but its further consequences must appal them as much as the heretic. The dedicatory burial by the threshold of A4, perhaps the most explicitly pagan feature of the site, must be laid at the door of the saintly Oswald; and he is not only involved in a number of other curious and unchristian ritual procedures but is also robbed of his Christian church. Moreover it must now be supposed that it was the first and not the second destruction of $A d$ Gefrin that took place in 65 I . Accordingly, while the site is made to appear oddly exempt from all effects of the combined ravagings of Penda and Cadwallon and the year of apostasy that followed Edwin's defeat, its evidences of violent destruction and reversion to earlier pagan practice have to be found an interregnal niche between Oswin and Oswy - and very curious they look there (even though Catterick could be found place as the scene of a battle that was called off at that time). Similarly, the sudden and striking departure from earlier architectural tradition at Yeavering could no longer be explained as the result of Oswald's return from exile but would have to be attributed to the accession of Oswy, in which context it seems inexplicable. Altogether, the idea of a later absolute dating for the whole sequence of archaeological events at Yeavering produces confusion and absurdity, and clearly it must be rejected.

The last, desperate attempt to squeeze Yeavering's archaeological evidences into the mould of recent historical convention fails. Obviously there is no discrepancy at all between history and archaeology at Yeavering from the time of Edwin onward, and there need be none in the preceding period. All that is at issue is choice of one of two alternative readings
of the ancient written testimonies; and the archaeology of Ad Gefrin appears to be consistent with Bede's statement that the history of Anglo-Saxon kingship in Bernicia began in 547 .
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If the siege of Lindisfarne is reliably dated to $580-90$, the nucleus of Yeavering's township will previously have been established around the Great Enclosure: at least the temple ( $\mathrm{D}_{2}$ (a)) and that companion building (Dr(b)) with which Anglo-Saxon pottery is associated, and probably also $\mathrm{D}_{3}$ and the nucleus of the theatre (E). Possibly the temple will already have been encased within $\mathrm{D}_{2}(\mathrm{a})$, and A 2 may have been even then a landmark. It is, at all events, exceedingly likely that Yeavering's first great, royal hall stood while Mynyddawg was feasting his motley war-band in Edinburgh in preparation for the massacre at Catraeth.

Since events are presumably to be judged by their outcomes, the difficult matter of origins can now be left aside: the causes may be illuminated by some consideration of their effects.

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Yeavering's last buildings stood against the dawn of the Golden Age, while Cuthbert lived and worked not twenty miles away. By the time they fell into ruin, the Book of Durrow was in existence; and before the last traces of the royal township had disappeared from sight, the scriptorium at Lindisfarne had created that lively but majestic gospel-book which bears its name and remains one of the acknowledged masterpieces of Early-Christian art. ${ }^{374}$
$A d G e f r i n$ then, in its latter years at least, functioned in a milieu that was evolving a unique form of ornamental art. This royal township and the monastery of Lindisfarne can hardly be supposed to have existed in two absolutely separate and distinct cultural worlds. Both were official institutions brought into being and supported by successive kings of Bernicia. They were satellites of Bamburgh, given common ground by their close links with the royal court. What we see at Yeavering must indeed be largely a reflection of political, religious and cultural developments centred on Bamburgh, and to that extent its testimony is potentially relevant to the problems of the Bernician Golden Age.

Among those problems is the question of the origins of that hybrid, Anglo-Celtic ornamental style that appears at different stages of evolution in the Book of Durrow and the Lindisfarne Gospels. ${ }^{375}$ On the decorated pages of those manuscripts, curious beasts from the Anglo-Saxon menagerie boldly inhabit Celtic curvilinear jungles, lush growths from what Kendrick called 'Ultimate La 'Tène style'. ${ }^{376}$ How, where and when did those contrasting traditions first come to be combined? The leading Irish school of argument tends to brush aside the possibility that there can have been any survival of the Celtic artistic tradition in Britain, ${ }^{377}$ and thus enables itself to believe that the hybrid ornamental style in question was virtually invented by craftsmen of the Irish church who simply added to their existing repertory a few Anglo-Saxon animal-motifs, captured during their Bernician safari (635-64). That explanation has an engaging simplicity, but it is open to doubt whether the mongrel style in question really was or could have been immaculately conceived within dogmatically Irish ecclesiastical precincts.

Ireland's claim to have maintained a secular tradition derived from La Tène art continuously over many centuries is almost certainly a true one; but, on the evidence, it is
doubtful whether it would be found exclusive in a court of law. Actually there is no more absolute archaeological proof of such continuity in Ireland than in Britain. On both sides of the Irish pond the course of 'Celtic' art-history during the third, fourth and fifth centuries AD is a matter of interpretation which rests on a minimal number of minor and insecurely dated pieces. ${ }^{378}$ To allow a liberal interpretation on one shore while denying it on the other would smack of nationalism. Up to the sixth century the basic issue in both cases is a question of probability rather than certainty, and one in which faith is often preferred to logic. What gives the Irish case the foundation for its implied claim to a virtual monopoly in the preservation and later development of the La Tène inheritance is a process of back-reference (itself involving uncertain assumptions) from major Christian works of art to minor secular and ill-dated works of craftsmanship. While it is readily granted that there must have been in fact some degree of artistic continuity in Ireland (and there must be particularly grateful and unstinted acknowledgement too of the marvellous achievements of Irish artists from the eighth century onward) it would be ridiculous to proceed from those grounds to the assumption that Ireland alone can have preserved certain fundamental artistic traits which at the outset were demonstrably in common throughout the cultural region of which northern and western Britain are equally essential part. ${ }^{379}$

It is admitted, even by the most dedicated Hibernophiles, that Anglo-Saxon art played some part in the evolution of such works as the Durrow, Lichfield and Lindisfarne codices; and it is evident (not least from Bede's explicit testimony ${ }^{380}$ ) that the crucial period of 'Anglo-Saxon' influence on Irish art came after 635, when the first Irish monastery was planted on a Northumbrian island. ${ }^{381}$ At that very same time, however, if the issue is to be judged in terms of the evidence that actually exists, the character of Irish manuscript art was changed in another and a more fundamental respect than is implied by the mere acceptance of Anglo-Saxon animal-motifs. Whereas the 'Cathach of St Columba' (late sixth or early seventh century) puts out only small and discreet decorative efflorescences, ${ }^{382}$ and the Bobbio MSS ${ }^{383}$ seldom venture far beyond the ornamental conventions of Continental EarlyChristian practice, the books of Durrow and Lindisfarne introduce an explosive and uninhibitedly Celtic exuberance that is entirely new in Christian art. Durham A II ro (circa $650)^{384}$ might be seen as the herald of that liberation. Hence, to the certainty that Aidan's landing on Lindisfarne must have exposed Irish art to influences from Bernician secular art and taste may be added the suspicion that those involved something rather more fundamental than an acquired fondness for certain grotesque animals.

The implied suggestion that the essential features of a secular tradition could be preserved in the later ecclesiastical art of the same region, like a fossil fly surviving only in amber, is by no means a daring one. We know the early church found it politic and convenient to put existing institutions, customs and even buildings (as at Yeavering) to Christian use, and regional idioms undoubtedly did survive in Christian art. ${ }^{385}$ Moreover, it is only to be expected that early ecclesiastical works of art in any particular style will tend physically to outlive their secular models, and our view of the Golden Age may be seriously disbalanced as a result. If we are too much in the sun of illuminated manuscripts from Britain and Ireland still dazzlingly in evidence, that is because the Christian church had the deliberate intention and the institutional means of conserving such things. It is quite otherwise with the secular art of the same times and regions, which was centred on personal trappings and jewellery,
and on buildings made of timber: its products were relatively short-lived, more immediately subject to the processes of fashion and decay, and were variously melted down, burned down, or laid down in the earth. The extent of our direct knowledge of early secular art, consequently, is determined almost entirely by the accidents of archaeological discovery. The lack of known examples of Bernician secular art in the fifth, sixth and seventh centuries cannot, therefore, be taken as a sound indication either that it did not exist or that it was necessarily feeble and unimpressive. Knowledge of the secular art of other regions has usually come from the objects found in furnished graves, and in the last analysis it is the absence of that revealing kind of burial custom from both the Bernician and the Irish world that is most significant.

Before the Sutton Hoo treasure-ship was discovered, who would have dared to suggest that the East Anglian court was in the seventh century the centre of a superbly vital school of art ${ }^{386}$ That sublime archaeological accident in Suffolk opened our eyes to the wealth, power, talent and wide contacts at the command of an Anglo-Saxon ruling dynasty. It particularly demonstrates a Dark-age king's taste and need for objects of display, in revealing some of the direct effects of royal patronage: the masterworks of master-craftsmen dedicated to the end that their lord should look every inch a king. Some of those effects, merely, not all; for obviously the whole patronage of a princely court cannot have been confined to such arts and crafts as are likely to be represented in a deposit of funerary type. As it happens, by the merest chance, we benefit immeasurably from the exceptional local custom in Suffolk which caused the portable adjuncts of kingly state to be laid in a ship; for although all but the bare and ghostly outlines of the vessel and its roofed treasure-chamber disappeared long ago, there is enough to remind us that princes had need also of shipwrights and carpenters and other craftsmen whose work can seldom be in evidence. Sutton Hoo offers, too, in the pathetic remains of a musical instrument, all that physically survives of that tradition of minstrelsy in lordly halls that finds echo in Beowulf and Widsith. But it can say nothing of the great halls themselves, the contrived settings in which gaudy kings lived, entertained, accepted homage and sought to be impressive - the wooden shells that, no less than the jewelsmith's supreme works at close quarters, had also outwardly to signify from far off the presence and power of kingship. Sutton Hoo, then, leaves us merely to infer that among the craftsmen attracted to and maintained by the court at Rendlesham there must have been a school of hall-builders responsible for the physical form and appearance of the royal centre. On the evidence that is available, no more can be said than that their qualities of skill and originality are likely to have been as much taxed and stimulated as those of the jewelsmith.

Yeavering, on the other hand - in date and status the first document of its kind known in Britain-speaks volumes (one, at least) about the work of royal hall-builders, but is silent about the portable emblems and other accompaniments of the kingship to which all its great buildings gave monumental expression. In that respect, and probably in more, Sutton Hoo and Yeavering are mutually complementary. Both sites find context in the literature of their age. Beowulf is the more strikingly illustrated by Sutton Hoo, but it is Yeavering that exemplifies that aspiration to an ideally majestic hall 'lofty and widegabled' which is repeatedly expressed in the poem. ${ }^{387}$ Sutton Hoo still lacks the Yeavering it will one day find in Rendlesham: Yeavering awaits its less assured Sutton Hoo.

Meanwhile, just as it would be ridiculous to suppose that the early kings of East Anglia
supported metalworkers and shipwrights but lived in hovels, so it would be absurd to imagine that their Bernician contemporaries and peers patronized only carpenters and were inclined or compelled to skulk unadorned in large but austerely functional royal buildings. The impression that all was gold and garnets in East Anglia, and scrubbed deal in Bernicia, is patently false. It is likely that there was actually a close connexion between Yeaveringstyle buildings and the decorative arts of their time and region. The development of buildingstyle in itself indicates a demand for impressive structures that would symbolize royal power. The 'theatre' at Yeavering, based on a Romano-Celtic form, is nothing if not a statussymbol. These buildings (like the Sutton Hoo treasures and more recent palaces and churches) were in a sense a form of visual propaganda, and it is improbable in the extreme that the effort to produce magnificence stopped short once the bare shells stood firm and watertight. That would surely not have been in the spirit of the age. Beowulf's picture of richly adorned halls forms a harmonious background to the personal splendour revealed at Sutton Hoo, and may now be allowed the more claim to authenticity. Little, if any, sign of former enrichments could be expected to survive among the below-ground traces of the royal buildings at Yeavering; but even so there are two features that have some bearing on this question.

First, there is the white plaster with which the walls of Aethelfrith's and Edwin's halls were rendered p. 235, $n .56$ ). The intention may have been simply to simulate the appearance of stone buildings; but that in itself is none the less clearly indicative of concern for visual effect. References in Beowulf to the bright appearance of halls might even admit the possibility that some inviting surfaces were adorned with painted designs, as in Roman houses and medieval halls and churches; but the fragments of plaster surviving at Yeavering are too few and too small to show whether or not this was so.

Secondly, the great width of the door-posts at Yeavering must be noticed (e.g. Figs. 6o and 61). Their structural function could be thought sufficiently to account for their greater thickness, relative to the heavy wall-timbers (and, of course, allowance had to be made for the thickness of the plaster with which the main wall-surfaces were rendered); but their width is too great to be explained in the same way. Admittedly, early builders did not work from refined calculations such as those of modern engineers, and were habitually overgenerous in the matter of safety factors; but even so they can hardly have been persuaded that there was any structural need for door-jambs $22 \cdot I^{\prime \prime}$ wide in buildings with such massively solid, load-bearing walls as those of Aethelfrith's and Edwin's halls. Yet that was the provision they made, and some reason must have justified the persistent use that was made of this uneconomical procedure (which is in evidence in the early buildings $\mathrm{Dr}_{1}$ and $\mathrm{D}_{2}$ also). Only one conclusion is possible. The seemingly inordinate width of the door-posts was not a structural expedient, but was the means of providing a generously broad field for decorative enrichment of the doorways through which all had to pass. Nothing could be more natural than that the achievements of a school of timber-building should give stimulus and scope to the local development of decorative wood-carving.

The medieval stave-churches of Scandinavia, although several centuries later in date, are the oldest intact examples of a comparable building tradition; and there is reason to suspect that a form of Yeavering-style building, transplanted by Northumbrian missionaries, gave rise to their evolution (pp. 272-4). They not only serve to illustrate the point directly
but also provoke a most relevant question. Had every one of these wooden structures been uprooted or allowed to decay, might we not - denied all trace of their carvings - have supposed them to have been uniformly gaunt, unornamented, religious sheds? Studies of the artistic aspects of Scandinavian society would have been the poorer by more than the name of an ornamental style, had the church at Urnes been known to us only from the plan of its traces in the earth. Again, with the almost miraculously preserved carvings of the Oseberg ship before us, it is natural to wonder whether decay may not have robbed us at Sutton Hoo of a vessel as richly decorated as the treasures it contained.

Return to the main issue may be made by way of a most salutary question. Let us assume hypothetically that Yeavering's major secular buildings were enriched with carved ornament, as is far more likely than not, and that a door-post of Aethelfrith's hall had survived intact - like the prow of the Oseberg ship - what style of ornament could it conceivably have shown us? The question is not so unapproachable as it may seem. It is possible at least to define within broad limits the artistic traditions and influences that can or cannot have been available to the builders of $A d$ Gefrin, by surveying and discussing from this point of view the seven formative phases of Bernicia's early history.

Phase I is the Celtic, pre-Roman, Iron Age, in which the La Tène style of art is adopted and developed in both Britain and Ireland. Outstanding works that survive were produced and used in North Britain in this period (which sees towards its close the occupation of the Bamburgh citadel and the building of the Yeavering oppidum).

Phase II, the Roman Iron Age, cannot have been nearly as erosive of ancient British cultural tradition north of the Tyne-Solway line as it was in the south. Roman occupation of the intramural region was intermittent and purely military. While it lasted there had to be regulation of native affairs; but clearly the Britons between the walls were never exposed to the full force of Roman civilization, and so were able to preserve much of their own way of life. The Roman frontier works, forts and roads had lasting effects; but the influence of the cheap provincial-Roman metal goods available for a while in native markets was hardly greater in North Britain than in Ireland at the same time. ${ }^{388}$ Massive armlets with La Tène-derived ornament ${ }^{389}$ show that the aristocratic art of native tradition must have continued in North Britain at least into the second century; but for a long period thereafter neither Britain nor Ireland has any conclusive evidence to offer, and it could seem that in both countries Celtic art was at a low ebb. That might be a false impression, when 'native' burials beyond the walls are at best so scantily furnished as to escape detection: adoption of the unfurnished burial-rite may be an important factor. It has been suggested that the apparent hiatus in Scotland reflects the effects of punitive measures taken in the SeveranCaracallan period, which may have eliminated many troublesome native aristocrats and reduced the quality of their societies. However, while removal of patrons may relegate artists to archaeological obscurity, it is most unlikely to destroy them or their inherited artistic traditions; and the continuity in minor forms of metalwork at Traprain Law, ${ }^{390}$ through and beyond the last centuries of Roman Britain, particularly encourages general acceptance of the thesis of continuity as stated by Leeds. ${ }^{391}$ The phenomenon of Pictish art seems particularly to involve some important degree of survival of ancient local tradition into the Christian period. ${ }^{992}$

Altogether, the Irish argument that allows Rome conveniently to destroy every trace of the

La Tène legacy in Britain is curiously unrealistic. It ignores four related points of the utmost importance. First, as is obvious even from the most casual glance at a map, a considerable part of North Britain was never subject to Rome. When the Hadrianic frontier first began to function, and again during the third and fourth centuries, there was in the north a free barbarian province about the same size as Ireland itself. Secondly it is perfectly clear that the art of free barbarians, far from being inhibited or destroyed, is actually stimulated to new and highly idiosyncratic developments by contact with a superior culture on the fringe of its world. La Tène art itself - which is generally regarded as the apotheosis of all that is 'Celtic' was not enslaved by its originally Mediterranean models, but found strength and liberation in them. Much later, in the fourth and fifth centuries after Christ, importation of minor works of provincial-Roman art gave new material to Free German craftsmen, who evolved their own extremely unclassical system of animal-ornament: the artistic reaction, again, was equal and opposite. In those instances, the inferior culture imitates the superior at the very outset; but in the long run the techniques and forms it has borrowed serve merely to make it all the better able to express and develop its own quite distinctive decorative idiom. Thirdly, is this not what happened in the free barbarian regions of the British Isles while southern Britain was a Roman province? Those very hanging-bowls and penannular brooches whose decorative motifs are so unmistakably 'Celtic' testify in themselves to the effects of provincialRoman forms and techniques on the native patrons and craftsmen of the regions beyond the Roman frontiers. Fourthly - and this is a point for later development - the free barbarian territories of the British Isles co-existed in a zone of common culture, ${ }^{393}$ as is clear from many early and late connexions (and is implicitly acknowledged whenever the question of Irish influence in Britain is discussed). What justification can there be, then, for the theory that requires marginal provincial-Roman influences to have been nothing if not beneficial in Ireland yet so wholly destructive in North Britain?

Phase III in the history of the Tyne-Forth province must be given formal beginning towards the end of the fourth century; but its roots go back to the third. It is the age of British political resurgence in the intramural region and in the western areas of the northernmost Roman province. Now British dynasties re-emerge from obscurity, and their centres of power begin to dominate the historical landscape. Outside Bernicia the ruling classes set up sub-Roman inscribed memorial-stones and pride is taken in ancestors with romanized names: the British church is active and nurses Ireland into the Christian world. In Bernicia, meanwhile, there is no sign of Christianity or of literacy: it is the territory of an uncommitted but not necessarily a weak nation - seemingly as strongly conservative in its own Celtic way as Ireland. It achieves its separate existence nevertheless in a period of reviving heroic societies, of aristocratic warriors who demand worthy arms and trappings from their artistcraftsmen.

However unequal in vigour and quality the survival of the British La Tène tradition may have been or may seem to have been, the political confederations of the fifth and sixth centuries clearly must have given the ideal context for its renewed development and diffusion. Roman models are followed somewhat self-consciously in the setting-up of monuments of status and power; but the massive silver neck-chains of dignitaries in the Tweed-Forth region have no Roman aspect and are surely symbolic of independent Celtic custom. Meanwhile, Bernicia retained its centres of power, clearly must have had a ruling class like the
rest, and cannot have been without some recognized form of art. Broadly, only two elements were available for its artistic development: what remained of British tradition, on the one hand, and of Roman influence on the other. As has been remarked, Roman influence in the barbarian world seems in general to have been more lastingly effective in the transmission of types, forms and techniques than of ornament; and while it undoubtedly did in its heyday bring exciting new ornamental motifs into the Celtic and Germanic repertories, those patterns were always speedily translated into the native idiom.

Thus, although Roman forms and motifs might be expected to have had some place in the fifth- and sixth-century vocabulary of Bernician art, they are unlikely to have been more than artistic loan-words, as it were, absorbed into the British vernacular. On balance it is far more likely than not that on the eve of Anglo-Saxon rule the decorative fields on trappings and buildings made for Bernician aristocrats contained curvilinear and spiraliform ornaments derived from ancient British tradition.

Before looking forward to the next phase of Bernicia's development, it will be useful to cast a further sideways glance at Ireland. There, it has been accepted - similarly on a basis of probability, not of legalistic proof - that there was some kind and degree of artistic survival from earlier La Tène tradition. Two points may be noticed. Jackson ${ }^{394}$ has recently reminded us most forcefully that the most outstanding features of Celtic society and its culture are the pervasiveness and persistence of certain basic patterns of thought and practice. That is a consideration that is as relevant to the British as to the Irish peoples who lived on the outer edge of the provincial-Roman world. Moreover - and this is the second point it is quite unrealistic to suppose that the Irish Sea was ever more a barrier than a medium of communication between those branches of Celtic society. It was by sea that La Tène art reached Ireland in the first place: the passage of people and ideas from Britain to Ireland is an essential feature of the Patrician legend, and the reciprocal process is represented by Irish secular and ecclesiastical colonization in Britain. The true concept is of a zone of persistently common culture which embraces a large area of northern and western Britain and of Ireland, and it precludes the possibility that Ireland could ever have gained or maintained an exclusive monopoly in the later effects of La Tène tradition. A detached view of the evidence discloses a broad parallelism between the artistic histories of Ireland and North Britain: first a phase of exuberance, then a period of obscurity - perhaps of stagnation - and finally one of renaissance. The essence of the situation is a process of interplay and exchange between the free Celtic lands of Britain and Ireland. ${ }^{995}$

Phase IV, 547-616, is the age of the earliest Anglo-Saxon kings of Bernicia, from Ida to Aethelfrith: a period of Anglo-Celtic compromise and integration, in which the continuity of British society is demonstrated at one extreme by native institutions and at the other by native pottery. These survivals are in evidence at Yeavering. Gefrin becomes Aet Gefrin, and displays the evolution of a hybrid and ambitious style of public building in wood. There is no sign of any Anglo-Saxon craftsmen in Bernicia during this period, and it is reasonable to conclude that the court relied for its ornaments, as for its buildings, on a native school.

It seems, then, that about the same time that Irish artists were striving to master the Continental forms and techniques associated with Christianity, Bernician craftsmen too were meeting a new challenge from the outside world. Their own particular problem was to produce such a combination of artistic elements as would be appropriate to a Celtic country
under Anglo-Saxon lords. If the nature and success of the architectural compromise reached at the same time is any guide, a vigorous Anglo-Celtic form of art will have grown up around the Bernician dynasty. Such provincial-Roman traits as survived in Germanic art in the fifth and early in the sixth century - the use of scrolls and 'spiral tendril' forms particularly would give the possibility of common ground to Celt and Saxon. The early stages of Germanic Style I animal-ornament (which Ida presumably knew of, if only through contacts with Deira) might even have stimulated Celtic artists - themselves past masters in the wilful schematization of animal forms - into renewed inventiveness. Assimilation of the later, less coherent forms of Style I might pose a more difficult problem; but it is not automatically to be assumed that in the time of Aethelfrith the court artists were required or able to keep abreast of the latest mode in Anglo-Saxon ornament. It is by no means impossible that by then the decorative art of Bernicia was as maturely individual as its public architecture. The hypothetical carving on the portal of Aethelfrith's hall must have been the product of mixed traditions, and in that respect at least may have foreshadowed the course of later AngloCeltic art.

Phase $V, 616-32$, however, saw the surviving members of the Bernician dynasty taking refuge among the Picts and the Irish Celts with whom they felt most secure, leaving the Bernician throne still warm to the tentative seat of Edwin. Edwin, by contrast, was a progressive son of the Anglo-Saxon world now knitting together in the south, and clearly he saw that the Celtic backwater of Bernicia posed an urgent political problem of integration. Barely was the crown upon his head before he took his southern evangelist to confront a pagan Celtic folk-assembly at Ad Gefrin. Paulinus's flight and the apostasy that followed Edwin's own defeat do not allow it to be supposed that this intrusive king, whose spiritual home was York, succeeded in bringing about in Bernicia anything more than a politic, superficial and temporary acquiescence to his will. Institutional and archaeological evidences show that he did not destroy the Celtic basis of Bernician culture; but he may nevertheless have enriched the patronized art of the Bernician court.

Edwin himself had experienced a formative period of exile, during which he had taken refuge in the East Anglian court. Raedwald, indeed, helped him to the kingship of Northumbria; and by that time Edwin's East Anglian connexions and obligations were such as to ensure the continuance of a process of political and cultural exchange between the two dynasties. Deiran Edwin's York still had its Roman core, as archaeology now shows, and Bede remarks his Roman-style standards; but Edwin's family is registered as 'Anglo-Saxon immigrants'. Edwin had become familiar with the artistic milieu of East Anglia at a formative stage in its development. On his accession he doubtless inherited or created a royal school of jewelsmiths and metalworkers at York, where perhaps the influence of East Anglian art continued to be felt through the importation of craftsmen, or their products, from Suffolk. It is unlikely, however, that he was moved to incur the trouble and expense of replacing the royal craftsmen of his remote Bernician outpost, and his buildings at Yeavering suggest that he was content simply to spur local specialists to more ambitious efforts. Edwin, indeed, need have felt no compulsion to bring about drastic change in the art of the Bernician court. It is evident, not only at Sutton Hoo but in a considerable series of Anglo-Saxon graves, that Celtic ornamental craftsmanship was actually prized in the Anglo-Saxon world. The hanging-bowls found in Anglo-Saxon graves are hardly to be explained en bloc as loot (how-
ever interesting that would be). A large proportion of them must be representative of trade (as Haseloff suggests ${ }^{96}$ ) or diplomatic gifts. If, as seems feasible, Edwin had become inter alia the proprietor of a ready source of luxury goods from the northern fringe of the Celtic world, is it not possible that among the diplomatic gifts he dispensed were some presents from Bernicia? Who, moreover, is more likely to have been the recipient of such tokens of his regard than the king of East Anglia?

Lafaurie's revised dating of the Sutton Hoo coin-hoard, and Werner's studies on the origins of Style II animal-ornament, tend to reopen the possibility that the Sutton Hoo treasure was buried at the end of Raedwald's reign, while Edwin still lived. This, of course, would discount the theory that the enamelling-techniques in evidence were introduced to the court of Rendlesham by Irish monastic craftsmen attached to Fursey's Christian mission, which arrived in East Anglia at about the same time as Oswald returned to Bernicia. Either way, there can as yet be no certainty in this matter; but it may be timely meanwhile to question whether the 'Great' Sutton Hoo hanging bowl is indeed necessarily Irish in its ornamental details.

However that may be, it seems safe at all events to suggest that Edwin is at least as likely to have esteemed as to have despised the best products of Bernician art; and certainly he can have had no cause wilfully to destroy it. At the same time, nevertheless, either through his seemingly rare visits to his northern lands (only one such expedition is recorded), or through the activities of emissaries and traders, Bernicia must have been brought increasingly into touch with the latest Anglo-Saxon mode of ornament. During Edwin's lifetime the trend of southern fashion swung to the decorative animal-motifs of Style $I^{397}$ : whole curvilinear creatures that gave great scope for such rhythmic improvisation in the Celtic manner as is later seen in the Book of Durrow and the Lindisfarne Gospels. The dignitaries of the Bernician court, seeing the style of ornaments worn by their king and his Anglo-Saxon officials, would make new demands on their local craftsmen. Thus, on the one hand, Edwin's reign is likely further to have enlarged the already diverse repertory of northern secular art; and, on the other, the presence of Celtic ornamental objects and techniques at Sutton Hoo is possibly representative of reciprocal effects from a process of cultural exchange established in his time. The idea of an East Anglian-Northumbrian political and cultural axis under Raedwald and Edwin is entirely in harmony with the historical facts; and it could account for several remarkable points of correspondence between the decorative arts of Rendlesham and Lindisfarne.

Phase VI, 635-44, is the age of the Irish church in Bernicia. Oswald, now host and patron, was evidently from the first at home in the Celtic world. Whereas it was to the Anglo-Saxon south that Edwin of Deira turned most naturally, first for refuge and later for his evangelist, it was to the Celtic north and west that Oswald of Bernicia - son of Aethelfrith - looked for haven in his exile and for priests in his kingship. That in itself seems to say something of Bernicia's cultural leanings in Aethelfrith's time; and the artistic taste and ideas that Oswald and his followers took with them into exile must in any case have been drawn from the fashions current in Aethelfrith's court. Whether or not those ideas were influential or were themselves modified in the new cultural milieu, their further development for about seventeen years had necessarily to proceed independently of the course of events in Edwin's Bernicia. The differences between Edwin's and Oswald's buildings at Yeavering might be
thought to reflect the general degree of divergence that resulted; but although that variation is significant enough in itself, it may not in these particular circumstances be a safe guide to the whole artistic situation. It has been shown that there is such absolute technical continuity between the halls of Aethelfrith and Edwin at Yeavering as to indicate that the royal school of hall-builders was left undisturbed by Oswald's exile. Consequently it is possible that Oswald took with him in his flight merely the knowledge of Yeavering-style building and - like the earlier Anglo-Saxon kings in Bernicia - was served by local artisans in his new environment (if, indeed, he had any need of builders there). ${ }^{398}$ At least it can be said that any effective northern or western influence to which the exiles may have been exposed can only have strengthened the Celtic aspect of their taste.

However that may be, when Oswald eventually came to his throne he inherited with it the royal Bernician art-style as it had developed meanwhile under Edwin, a little advanced but still within the bounds of his experience and taste. True the heathen had but recently ravaged Northumbria, had burned down $A d$ Gefrin and sent Paulinus scurrying from York with Edwin's widow and treasures; but it is inconceivable that in the space of a single year the accepted artistic language of the kingdom could have been totally destroyed. Enough works of craftsmanship - and, more important, enough trained craftsmen - must have remained to allow the established artistic traditions of the Bernician court to continue. It was primarily to the little world of that court that Oswald was soon to introduce Irish ecclesiastics. The land he gave them for their monastery on Lindisfarne was within sight of Bamburgh, and for topographical and strategic reasons must long have lain within the special sphere of interest of the Bernician kings. We hear of Aidan and Oswald dining together, and Bede's account suggests that this was at Bamburgh, the focal point of the kingdom's art and culture, where the Irish bishop would have seen far more than the silver dish on which the story centres. The relationship between the king and his priests seem to have been such as critically to expose the Irish to the whole force of Bernician cultural tradition; and since the success of their mission depended on their royal patron's pleasure and his subjects' acceptance of their authority, there was more than a merely aesthetic inducement to adopt the artistic forms that were locally associated with the expression of power. Further, if Oswald's patronage was as wholehearted as it appears to have been, there is some likelihood that the services of native craftsmen attached to the royal court would have been made available to Aidan's monastery. Soon, at all events, native Bernicians would enter the monastery and make their own contribution to the character of its society and craftsmanship.

During the bishoprics of Finan and Colman, according to Bede, ${ }^{399}$ while the Irish in Bernicia adapted themselves to local conditions, Northumbrians of all classes pursued ecclesiastical studies in Ireland. Again the situation was one highly favourable to cultural exchange. In this period, as Mme Henry points out, ${ }^{400}$ Irish art visibly responds to a tide of influence from Northumbria, so that Anglo-Saxon and Celtic traits can then be seen in combination for the first time in Ireland. On the assumption that no part of Britain which was not under Irish influence could have had any but an Anglo-Saxon art to offer, Mme Henry concludes that the first absorption of Anglo-Saxon features into Celtic art can have taken place only in Ireland or in an Irish monastery. Certainly this formative combination was indeed novel in Ireland at that time, but it does not by any means follow that the idea need then have been new in Northumbria. Whereas Ireland hitherto had not been exposed
to Anglo-Saxon culture, and had had no incentive to come to terms with it, in Bernicia there had been for a century past both need and opportunity for the discovery of all possible modes of compromise between the Celtic and Anglo-Saxon worlds that met there. In 635 the Irish evangelists in Bernicia were themselves faced in turn with the same need to find a form of art that would speak clearly to both their patron and his subjects. It is a little more than merely conceivable that they accepted the solution to that problem offered by the existing art of the royal court nearby. The Irish interlude brought Bernicia into the stream of literate Early-Christian culture, learning and thought, implanted the arts of writing and illumination; and if in that process the Irish provided the occasion for the perpetuation of some part of Bernicia's own secular art, which otherwise would have been lost to view, that is but one more debt to be acknowledged.

Phase VII, from 664 to the Viking raid of 793 , begins with the cutting of the formal ecclesiastical bond between Britain and Ireland. From an early stage, this is a phase of unprecedented freedom and originality in insular manuscript art; and within a few decades the Lindisfarne Gospels and other works attributable to the Lindisfarne scriptorium far surpass the Book of Durrow in masterly exploitation of the northern ornamental vernacular there is a torrent of inventiveness. The period of the Irish mission in Bernicia appears now to have been a watershed in the history not only of Christian manuscript art in the north but of Irish art itself.

The art of Lindisfarne clearly did not suffer from the ending of Irish monastic rule and may have benefited. Its early debt to Ireland, in its learning of the forms and techniques of literacy, was immense and fundamental; but by 664 it had absorbed all that Ireland could teach, and now it was free further to develop its own natural idiom without restraint. That it had an individual contribution to make in the continuing cultural exchange with Irish and other Christian centres is beyond doubt. Every transplanted art responds to its new environment and is changed accordingly: were it otherwise, La Tène art would have been Greek or Etruscan, Roman art would never have become Romano-Celtic in one area or have given rise to Germanic animal-ornament in another, and the initials of the Cathach could scarcely have sprouted even such modest little Celtic tufts. Lindisfarne existed in a secular milieu that was Anglo-Celtic long before Aidan and his followers came to Oswald's call - one that appears to have been without contemporary parallel in the British Isles, and certainly one that exposed Irish evangelists to new problems and new ideas. We know the Irish adopted a new, audaciously exuberant Anglo-Celtic style of ornament in or after the middle decades of the seventh century - whence did it come? Save through the influx of Northumbrian and other scholars from Britain, Ireland offers no convincing context for the origination of such a hybrid; whereas in the Tyne-Tweed region the effect so stunningly demonstrated in the Lindisfarne Gospels (a local product) can be related to a more ancient and local Anglo-Celtic cause.

It is obvious, and is universally agreed, that in the seventh century Irish art took a massive dose of 'Anglo-Saxon' influence from Britain, which evidently was therapeutic; but insular 'Anglo-Saxon' art itself was the product of an environment which was not uniformly Germanic. If the pill was dispensed from the British fringe of emergent England, it may well have been a native-Celtic coating that allowed it to be assimilated into the Irish system. Is it not, on the whole, likely that the secular world of Bernicia gave something of its own quality
and force to insular Christian art? The question would be trivial if its answer did not to some extent determine the cultural perspective in which the remains of $A d$ Gefrin are to be viewed. The relative values of Irish and Northumbrian achievements are unimportant: from 635 the artistic relationship appears to have been symbiotic, and it would be sterile to argue the merits of one side or the other. What matters now is not the quality but the kind of art that may have resulted from the nature of Bernician society in the sixth and seventh centuries. In the last analysis, it seems most significant that Ireland and North Britain have so long been able in the end to pool their cultural resources; and probably it is to that longstanding compatibility that the special characteristics of northern art in the later seventh and eighth centuries are due - characteristics in that context better called Hiberno-Northumbrian than Hiberno-Saxon, since the latter (indiscriminately used as a blanket-term) uncritically begs the whole question of a La Tène legacy in Britain.

In the broadest perspective, then, Ireland and North Britain appear in the crucial period simply as parts of a northern zone, a barbarian European fringe extending eastwards into Scandinavia, that had escaped the most deadening effects of Roman civilization. If it is difficult to distinguish between north-British and Irish works, that may be the measure of their affinities through a common inheritance. Christianity provided the occasion for a new flowering and an unprecedented survival of northern art; but it did not change the essentially barbarous nature of that art. Thus it was that artistic interchange between Christian Northumbria and pagan Scandinavia could follow so readily.

The purpose of this discussion as a whole has been to discover the character of early Bernicia, to illuminate the background of $A d$ Gefrin. The final conclusion must be that, even in the days of Northumbrian political unity, Bernicia remained in various respects distinctly different from Deira or any other Anglo-Saxon kingdom. The difference seems to have arisen from the effects of the geographical division acknowledged by the Roman frontier along the Tyne. The Bernician region found itself between two worlds, learnt early to preserve the essentials of its native identity through compromise, and allowed itself to stand in the same ambivalent relationship to Anglo-Saxon England as to Roman Britain. Edwin's apparent inability or reluctance to extend his church-building programme into Bernicia has already been remarked. The history of the competition between the Roman and Celtic churches in Northumbria betrays the continued existence of a cultural frontier around the Tyne in the seventh century (Whitby, even, was a safe Deiran conference-centre) and the effects of that division are still visible for some time in the artistic contrast between the urbanely unoriginal products of Monkwearmouth-Jarrow and the teeming barbaric inventions of Lindisfarne.

That in itself is testimony to the ancient character of Bernicia, and perhaps a guide to its origins. There are many imponderables, and many subtleties in modern academic controversy have been brushed aside here; but if causes are, as has been argued, dimly to be discerned from their effects, then it may not be altogether fortuitous that for some time now the eastern part of the frontier between England and Scotland has been drawn along the Tweed (Berwick still in dispute) . . . halfway between the Hadrianic and Antonine lines.

## APPENDIX I

## Yeavering's faunal remains

Mr E. S. Higgs and Mr M. Jarman have studied the large bulk of animal-bones recovered during the excavations at Yeavering. The excavator of the site must preface their report by drawing the field-perspective of the material examined.

First it is essential to consider whether the surviving material is truly representative. As has been stressed in Chapters 2 and 3 of this book, the preservation of organic materials at Yeavering was extremely variable. The western fringe of the whaleback's crest, in which Buildings Di and D2 and the 'Black Ditch' occurred, was exceptional in providing many specimens whose state of preservation could be rated between 'moderately good' and 'very good'. Eastward, the incidence of well-preserved specimens rapidly declined, and over the rest of the site relatively few bones could be lifted or conserved: usually the range of distinction lay simply between those floury traces that were still in some degree identifiable, and those that were not.

Consequently it might seem that the exceptionally high concentration of surviving animal-bones in evidence from the area of Building $D_{2}$ could be merely the misleading result of an accident of preservation, arising from a locally favourable soil-environment. That conclusion is forbidden, however, by two circumstances. First, it must be observed that bones in advanced stages of decay were as numerous in that area as in any other on the site. Secondly, the virtually total disappearance of so many human skeletons from the graves around Building D2 shows independently that the ground was as naturally voracious there as elsewhere.

It was realized in the field, during the excavation of D 2 , that this problem fundamentally affected the validity of any statistical approach to the evidence, and accordingly special study was made of the local effects of decay. In the first hypothesis to be adopted, it was experimentally assumed that the observed variations in the preservation of organic materials were to be correlated with variations in the speed and course of soildrainage (in which, naturally, the question of local soil-acidity was subsumed). The almost complete decay in the 'retentive' graves of D2, in contrast to the relatively high degree of survival in the 'conductive' foundationtrenches and Black Ditch, appeared to support that hypothesis; but there was no means of evaluating the relative vulnerabilities of human and animal-bones, and various local anomalies could not be wholly explained on this experimental basis. It was concluded that the retention or channelling-off of acid-charged water, both by natural and artificial features of the site, did indeed play a significant part in producing the phenomena under investigation; but that some other factor or factors must also be locally involved. Next it was observed that there was usually an abnormally high survival among such bones as were contained within a soil-matrix in which a visibly large proportion of charcoal was present; but there were also conspicuous survivals of bone where charcoal was not perceptible in the matrix. Finally, dissection of the remarkable bone-deposit preserved in the foundation-trench of $\mathrm{D}_{2}$ 's east wall showed that there was a significantly positive correlation between the mass of the deposit and the survival of its component parts. Whether the principle will be found to hold good on other sites remains to be seen, but it appeared at Yeavering that a dense mass of bones could locally create its own self-protective environment where an isolated bone would demonstrably be subject to extreme decay; and that conclusion was wholly borne out by the evidence from the Black Ditch (where nevertheless swift drainage and density of charcoal in the matrix may also have been contributive to the consistently good preservation of animal-bones).

In short, there are reasonable grounds for supposing that the great number of surviving specimens from Building $D_{2}$ reflects exceptional massiveness in the original deposit. The precise proportional effects of the balance between destructive and preservative factors, leaving thus many bones portable and that many irrecoverable, cannot be measured accurately in any individual case; but crude assessment of the total bulk in the field showed that no other building on the site could conceivably have rivalled $\mathrm{D}_{2}$ in the sheer quantity of its
associated animal-bones. $\mathrm{D}_{3}$ ran it closest, perhaps, but its claim to second place rests mainly on a multitude of small, severely decayed and irrecoverable fragments. A2 provided 84 portable, identifiable fragments of ox against 73 recovered from $\mathrm{D}_{3}$, but offered a relatively small proportion of irrecoverably disintegrated and unidentifiable traces.

But if there is no grave risk of gross statistical imbalance in the purely quantitative aspect of the evidence overall, there is nevertheless perhaps the possibility that the material from D2 lends itself disproportionately well to the identification of particular species and bone-types. In this respect, while it is not absolutely conclusive, it is at least reassuring to find a substantial degree of correspondence between the identification of irrecoverable specimens in the field and of recovered specimens in the laboratory. Accordingly, Table IV appears to be reasonably representative of the whole assemblage in each area (save one, noticed below). For instance, both the recovered and the irrecoverable material showed a notable absence of parts of the skull from Buildings $\mathrm{D}_{4}, \mathrm{D}_{5}, \mathrm{~A}_{1}, \mathrm{~A}_{2}$ and $\mathrm{A}_{4}$ (and $\mathrm{A}_{4}$ stands alone, in both records, in yielding a few components of hooves). The one discrepancy lies in those identifications of irrecoverable specimens in situ which indicated that an abundance of leg-bones and joints was as characteristic of $\mathrm{A}_{4}$ as it was of $\mathrm{A}_{2}$ (where the evidence was given by portable remains alone).

In only the one respect remarked above can the material submitted to and so thoroughly examined by Higgs and Jarman be seen to be unrepresentative; and that is a legacy from the initial phase of Yeavering's excavation, when the present writer and his assistant could rely on the presence of but a single workman in their efforts to rescue truth from a rapidly diminishing acre already raped by the bulldozer. During that period the writer himself identified the animal-bones, and then (because there was no provision for bulk-storage) was forced to discard them. Thus it is that the important faunal remains from the Black Ditch, hurriedly explored in that phase of the investigation, did not come into the view of those who have contributed the core of this appendix - they have seen only a small sample precariously clawed from the quarry's edge at a later stage, and it is to this alone that their relevant observations refer. Since the writer's categories of identification were for various reasons so much cruder than those of Higgs and Jarman, it seemed to all parties better that the original assessment of the Black Ditch should be kept distinct from all else that has since been more expertly examined. Accordingly the writer independently offers Table VII and its commentary, which embody the primary observations. There, only $57 \frac{1}{2} \%$ of the available material is identified in terms of species, whereas Higgs and Jarman are able to identify $83 \%$ of their small sample (which result may reflect the different conditions in which the samples were taken, in addition to the writer's lesser expertise in identification); but it is reassuring to find that there is nevertheless significant agreement as to the predominance of cattle-bones in the deposits - the writer's minimum estimate of $97 \cdot 2 \%$ of the identifiable total from his two large samples agrees well with the Higgs/Jarman figure of $100 \%$ from a single, far smaller sample.

Finally, some attempt must be made to put the results of this largely statistical inquiry into historical terms. The following paragraphs give a broad statement of the more important conclusions, and formulate some of (the questions that arise from the evidence:
(I) Yeavering's faunal record consistently indicates that systematic cattle-breeding was an important activity in the surrounding areas.
(2) Remains of pig, sheep, goat and horse occur also, but are relatively very rare.
(3) Goat could be identified with certainty only in one instance, in Grave AX: it is noteworthy that the recognizable bones present in the sockets of Yeavering's free-standing posts were invariably of sheep/goat.
(4) The highest concentration of animal-bones was focused around Building D2 and its neighbouring structures (Buildings $\mathrm{D}_{3}$ and $\mathrm{DI}_{1}$, and the Black Ditch).
(5) In their analysis and conclusions, Higgs and Jarman show that the deposits associated with Building D2 appear in two ways to have been subject to ancient selectiveness: first, in that they contain so high a proportion of cattle-bones, and secondly in that remains of skulls so remarkably outbulk the leavings from other parts of the carcase. The stratigraphical evidence indicates that special provision was made for 'formal' stacking of the bones in question.
(6) Building $D_{3}$ and its ancillary features show the same predominance of cattle-bones; but there is marked contrast with $\mathrm{D}_{2}$ in that (a) numerous though they were, $\mathrm{D}_{3}$ 's fragments of bone were characteristically small and irrecoverable, and (b) the bulk of the material in $D_{3}$ was made up of cut long bones, scapulae and ribs, with a proportion of vertebrae and hooves. Teeth, mandibles and other parts of the skull were relatively rare in and around $D_{3}$.
(7) In the Black Ditch, bones of cattle again vastly outnumber those of other species. A very large number of beasts is betokened by mandibles, teeth, horns and other parts of the skull; but other parts of the carcase are poorly represented. Indeed, the Black Ditch offers a testimony closely akin to that of Building $\mathrm{D}_{2}$ : in both structures, there was an extraordinary abundance of ox-skulls coupled with a correspondingly notable lack of legs, tails and ribs.
(8) Conversely, when all the evidence is conflated, it appears characteristic of the 'normal', early halls at Yeavering that their remains of animal-bones so rarely included skull-fragments - their typical fossil, in this respect, was the prime cut, the expensive 'butcher's joint'.
(9) Building $D_{3}$, double-hearthed and surrounded by a litter of cut and splintered fragments of bone, is hardly to be explained save as a specialized butcher's shop and cookhouse. It would be convenient, for the purposes of hypothetical economy, to regard this structure simply as the kitchen from which the spit-roast beef eaten in Yeavering's nobler halls was carried. Such it may well have been, serving at first $D_{1}$ and $D_{2}$ and then $A_{2}$ and finally $A_{4}$ and their associated structures; but the cold statistical reckoning that has followed so long after these feasts raises bony questions of accountancy that specially involve, inter alia, the nature of $\mathrm{D}_{2}$ and its relationship with the slightly later $\mathrm{D}_{3}$ :
(a) Why were ox-skulls so preferred in the building of seemingly useless bone-stacks within $\mathrm{D}_{2}$ ?
(b) Why the similar predominance of ox-skulls among the 'faunal remains' tipped into the Black Ditch?
(c) How is it that the number of ox-horns recovered from the ground so consistently falls short of the quantity required by a count of the individual beasts otherwise represented? Were Yeavering's cattle surgically dehorned? Or were the horns used as drinking-cups, or 'industrially' - or kept above ground as trophies, souvenirs, ornaments? A significantly high concentration of ox-horns is associated with one structure only - the 'fort' or Great Enclosure, in its final form. As Table IV shows, the demolitionlayers of that impressive public structure contained, within the sampled areas, horns unaccompanied by skull, mandibles or teeth. Is there perhaps a remote possibility that the last wooden walls of the Great Enclosure were ornamented with ox-horn finials?
(d) Why the contrast between the assuredly 'Christian' $A_{3}$ and its predecessors $A_{4}, A_{1}$ and $A_{2}$, in the record of animal remains? Is this a consequence of the destruction of $\mathrm{D}_{2}$ and its associations? If so, there is the more justification for regarding the fire that razed A4, D2 and the Great Enclosure as an authentic division between one era and another; and it will be the more reasonable to suspect that the selectiveness apparent in Yeavering's earlier faunal deposits was exercised within the customary bounds of a pagan society.

## Yeavering: Faunal Report <br> by

E. S. Higgs and M. Jarman

In order to find out if there were any significant differences in the distribution of the animal-bones from the site, they were considered in three groups, those from the area $\mathrm{D}_{2}$, those from the Black Ditch, and those from other areas. The following differences were observed.

In spite of its smaller area and limited period of use, the total number of specimens from $\mathrm{D}_{2}$ (1481), exceed that from all the other buildings (911) combined. Further, the percentage of cattle-bones from Building $\mathrm{D}_{2}$, as shown in Table I, is higher (by $5.3 \%$ ) than that from the other buildings. This percentage would be higher still if the scattered bones around D2 were taken into account. The few identifiable specimens from the Black Ditch ( 34 out of the 4 r available to us) were all of cattle.

Table I

|  | Cattle | Sheep | Pig | Horse | Human | Bird | Rabbit | Shell |
| :--- | :--- | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| D2 | $593(97 \%)$ | $4(0.7 \%)$ | $7(\mathrm{I} \cdot 1 \%)$ | $3(0.5 \%)$ | $3(0.5 \%)$ | $1(0.2 \%)$ | - | - |
| Other areas | $319(91 \cdot 7 \%)$ | $10(2.9 \%)$ | - | $7(2.0 \%)$ | $2(0.6 \%)$ | $5(\mathbf{I} \cdot 4 \%)$ | $1(0.3 \%)$ | $4(\mathrm{I} \cdot \mathrm{I} \%)$ |

As shown in Table II, this difference in the distribution of the cattle-bones is confirmed by the ratio of large to small fragments; all of the large fragments were of bones of horse or cattle size and may be assumed to be of cattle, as horse is only rarely represented in the collection. The higher percentage of small fragments which occurs in the Black Ditch and other areas combined, in itself also suggests a different use for the different areas. This difference in the degree of fragmentation could be taken to indicate different functions for the different areas. The higher proportion of fragmented bones in the other areas might be due to the fact that they were the debris of normal butchering and cooking activities, whereas the lower percentage from area $D_{2}$ suggests another kind of usage.

Table II

|  | Large Fragments | Small Fragments |
| :--- | :---: | :---: |
| D2 | $402(99 \%)$ | $4(\mathrm{I} \%)$ |
| Black Ditch | $4(\mathrm{I} 00 \%)$ | 0 |
| Other areas | $253(94 \%)$ | $16(6 \%)$ |

Although some selective factor appears to have caused a higher percentage of cattle-bones to occur in area D2 than elsewhere, all the domestic species are present there in various small proportions. Pig remains, overall, are particularly rare, and all identifiable specimens are from the $\mathrm{D}_{2}$ area.

As shown in Table III, there is nothing to suggest that more identifiable specimens were selected during excavation from one area rather than from another. The low percentage of non-identifiable remains in the Black Ditch is probably due to the relatively small sample.

Table III

|  | Identifable | Non-identifiable |
| :--- | :---: | :---: |
| $\mathrm{D}_{2}$ | $6 \mathrm{II}(4 \mathrm{I} \cdot 3 \%)$ | $870(58 \cdot 7 \%)$ |
| Black Ditch | $34(83 \%)$ | $7(\mathrm{I} \% \%)$ |
| Other areas | $348(38 \cdot \mathrm{~F} \%)$ | $563(6 \mathrm{I} \cdot 9 \%)$ |

Furthermore, certain bones are more highly represented in the D2 area than they are elsewhere, notably the fragmented cranial bones and the metapodials (Table IV). On the other hand vertebrae, pelves, scapulae and long bones are more highly represented elsewhere. It appears that the better meat joints were used elsewhere than in area $\mathrm{D}_{2}$.

The calcanea and astragali are also both poorly represented in area $\mathrm{D}_{2}$; and this may be due to the fact that the butchering techniques left them attached to the better joint of the tibia. The phalanges were also rare in area D2 compared with elsewhere. They may have been removed as a single joint with the hoof for some other purpose, glue-making for instance.

In general the age curves of all three groups are similar if one bears in mind that there is only a small sample from the Black Ditch. It may be that the killing pattern arises out of a factor, perhaps economic, which was common to all the areas concerned.

There is also some indication of ancient selection of a particular age group in area D2. Graph I, which illustrates the probable maximum ages at death, shows that while $16.7 \%$ of the cattle from the locations other



Graph i. Yeavering cattle, minimum possible age at death. Graph 2. Yeavering cattle, maximum possible age at death.
Table IV

| Distribution of bone-types, expressed in percentages area by area. <br> For simpler analyses of two larger samples from the Black Ditch, please see Table VI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | D2 |  |  | Di | $\mathrm{D}_{3}$ | D4 | $\mathrm{D}_{5}$ | D6 | AI | A2 | $\left\|\begin{array}{c} A_{3} \\ (a \& b \end{array}\right\|$ | $\mathrm{A}_{4}$ | $\mathrm{A}_{5}$ | Cr | C2 | $\mathrm{C}_{3}$ | $\mathrm{C}_{4}$ |  |  |
| Horn | 0.88 | 1.0 | - | 0.33 | 1. 6 | I.0 | - | - | - | - | - | 2.0 | - | - | - | - | - | - | - | 51.51 |
| Skull-Maxilla fragts | $0 \cdot 53$ | $5 \cdot 73$ | $2 \cdot 9$ | 0.89 | - | - | - | - | - | - | - | $6 \cdot 1$ | - | 6.25 | - | - | - | - | 19.75 |  |
| Mandible | 6.10 | 19.8 | $5 \cdot 9$ | $2 \cdot 44$ | 9.5 | I-3 | - | - | 4.0 | - | - | $8 \cdot 2$ | - | $6 \cdot 25$ | 5.0 | - | - | - |  |  |
| Teeth | 89.25 | 52.9 | 76.5 | 12.64 | 74.7 | 3.8 | - | - | 28.0 | - | - | - | - | , | 15.0 | _ | - | $35 \cdot 5$ | 26.74 | - |
| Vertebrae | - | $1 \cdot 18$ | - | 8.16 | - | 8.8 | 6.9 | - | 16.0 | - | 15.48 | 2.0 | $27 \cdot 5$ | - | - | - | 37.5 | - | - | 6.06 |
| Ribs | - | $0 \cdot 34$ | - | $8 \cdot 95$ | - | 8.3 | 15.4 | 15.78 | 12.0 | $25^{\circ}$ | 11.9 | 2.0 | - | - | $35^{\circ}$ | - | - | - | 23.23 | 9.09 |
| Pelvis | - | 2.19 | - | $5 \cdot 5$ | - | 39 | 21.3 | - | - | - | $2 \cdot 39$ | $8 \cdot 2$ | 12.5 | 12.5 | 350 | - | - | 16.2 | 23 | 9.09 |
| Scapula | 0.53 | $2 \cdot 7$ | - | $8 \cdot 22$ | 4.8 | 17.2 | $34 \cdot 2$ | $21 \cdot 3$ | 40 | - | - | $6 \cdot 1$ | 2.5 | 25.0 | - | $5 \cdot 9$ | - | 97 | - | 3.03 |
| Humerus | - | 2.05 | - | 10.97 | - | 10.7 | $0 \cdot 48$ | 2.03 | 12.0 | 25.0 | 33.33 | $8 \cdot 2$ | 75 | 12.5 | - | 29.4 | - | 12.9 | - | 6.06 |
| Radius | I-18 | - | 3.45 | - | 3.2 | 0.52 | $8 \cdot 5$ | - | - | - | - | 10.2 | 7.5 | - | - | $5 \cdot 9$ | $12 \cdot 5$ | - | - | 6 .06 |
| Ulna | - | 0. 84 | - | $2 \cdot 41$ | - | $3 \cdot 1$ | $5 \cdot \mathrm{I}$ | - | - | - | - | $6 \cdot \mathrm{I}$ | - | - | 10.0 | - | $6 \cdot 25$ | 3.2 | - | - |
| Femur | - | 0.51 | - | 9.08 | - | 7.0 | 10.8 | 1 H 8 | 16.0 | 25.0 | - | 6.1 | $5 \cdot 0$ | - | - | 23.53 | 18.75 | 3.2 | 16.0 | 9.0 |
| Tibia \& Fibula | ${ }^{1} 65$ | 0.51 | 8.8 | 15.91 | I. 6 | 11.8 | $5 \cdot 3$ | $42 \cdot 3$ | 8.0 | 25.0 | 36.9 | 10.2 | 12.5 | - | 10 | $35 \cdot 28$ | $25^{\circ}$ | - | 14.28 | 6.06 |
| Metacarpals | - | 2.05 | - | 0.87 | - | $3 \cdot 1$ | - | - | - | - | - | $4 \cdot 1$ | 5.0 | - | - | - | - | - | - | - |
| Metatarsals | 0.53 | 3.2 | - | 2.13 | 3.2 | $3 \cdot 3$ | - | - | - | - | - | 2.0 | 10.0 | 6.25 | 5.0 | -- | - | - | - | - |
| Metapodials | 0.53 | 1-18 | - | ${ }^{\circ} \cdot 69$ | - | $1 \cdot 5$ | - | - | - | - | - | - | - | - | 5.0 | - | - | $3 \cdot 2$ | - | - |
| Carpals |  | 0.34 | - | $0 \cdot \mathrm{r}$ | - | 1.23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tarsals | - | ${ }^{0} 17$ | - | 0.08 | - | 0.85 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Phalanges I | - | ${ }^{\circ} \mathrm{O} 3$ | - | 1.44 | 6.5 | 1.97 | - | - | - | - | - | - | $5 \%$ | - | - | - | - | 6.5 | - | - |
| " ${ }^{2}$ |  | - | 2.9 | 0.18 | - | $2 \cdot 53$ | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| " 3 | - | - | 2.9 | $0 \cdot 11$ | $6 \cdot 5$ | $2 \cdot 31$ | - | - | - | - | - | - | - | - | - |  | - | 6.5 | - | - |
| ." fragts | - | 0.17 | - | 0.07 | - | ${ }^{1} \mathrm{O} 03$ | - | - | - | - |  |  |  |  | - |  | - | - | - |  |
| Hyoid | - | $0 \cdot 17$ | - | $1 \cdot 15$ | - | 1.03 | - | - | - | - | - | - | - | - | 15.0 | - | - | - | - | - |
| Calcaneum | - | 1.35 | - | 2.13 | - | $\mathrm{I}^{\text {P } 05}$ | - | - | - | - | - | - | 10.0 | 18.75 | -- | - | - | - | - | - |
| Astragalus | - | 0.17 | - | 1.39 | 3.5 | - | - | - | - | - | - | - | $12 \cdot 75$ |  | - |  | - | 3.2 | E |  |
| Number of identified specimens | 118 | 593 | 34 | 500 | 63 | 73 | 31 | 33 | 25 | 4 | 84 | 49 | 40 | 16 | 20 | 15 | 16 | 31 | $5^{6}$ | 33 |

than the $\mathrm{D}_{2}$ area were younger than 18 months, no cattle from area $\mathrm{D}_{2}$ itself certainly fall within this age group. The maximum age at death is likely to be the more correct figure, as in view of the available technology, a slow growth to maturity may be expected at this time. The data are shown in Table V .

Table V

| Months | $6-11$ | I2-17 | 18-23 | 24-29 | 30-35 | 36-4I | $4^{2-47}$ | $4^{8-53}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D2 | - | - | 12 (12.9) | $16(17.2)$ | $29(31 \cdot 2)$ | 30 (32-3) | $3(3 \cdot 23)$ | $3(3.23)$ |
| Black Ditch | - | - | I ( $\mathrm{II} \cdot \mathrm{I}$ ) | 3 (33.3) | 4 (44.5) | I ( $\mathrm{I} \cdot \mathrm{I}$ ) | - | - |
| Other areas | 5 (13.9) | I ( $2 \cdot 78$ ) | 5 (13.9) | $4(11 \cdot 1)$ | $13(36 \cdot 1)$ | 3 (8.33) | 3 (8.33) | $2(5 \times 56)$ |

(Percentages are shown in brackets)

## The Economy

Whatever may have been the purpose or purposes of the Yeavering constructions, it may well be that the prevailing agricultural economy of this area at that time is reflected in the animal remains. If the minimum possible age at death* is taken, for example, there would appear to be two killing peaks, c. 6-12 months of age, and between 18 and 35 months of age (Graph II). The data are shown in Table VI.

Table VI

| Months | --5 | 6-II | ${ }^{12-17}$ | 18-23 | 24-29 | 30-35 | 36-4I | 42-47 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D2 | - | 86 (24.2) | II (3.1) | 73 (20.6) | $9^{1}(25 \cdot 6)$ | $63(17 \cdot 8)$ | $26(7 \cdot 3)$ | $5(1 \cdot 4)$ |
| Black Ditch | --- | 7 (24.1) | I (3.4) | 4 ( $\mathrm{I} 3 \cdot 8$ ) | $15(51 \cdot 8)$ | $2(6.9)$ | - | - |
| Other areas | I (0.7) | $31(22.8)$ | 15 ( 11.0 ) | 17 (12.5) | 43 (31-6) | $15(11 \cdot 0)$ | $7(5 \cdot 15)$ | $7(5 \cdot 15)$ |

(Percentages are shown in brackets. This table includes a number of additional age determinations based upon the fusion of the ephyses of the long bones.)

Animals killed at $c$. 6-12 months of age, if they were born, as one might expect, over a period of three months in the late spring and early summer, may be those which were killed at regular intervals over the autumn and winter months in order to obtain a regular supply of meat. Such a group, however, could also have been killed all at one time, a practice which, it has been suggested, arose out of a shortage of winter fodder in neolithic and later times. It could be regarded as even more likely that by the time of the Yeavering occupation, the demand of increased human population had so increased the animal populations that there was indeed at this time a shortage of winter fodder; that in fact human demand was at this time outstripping the resources made available by the known agricultural technology of the time. It is not impossible that a necessary seasonal killing may have attached to itself a ritual significance. Further, in an area such as this, an autumn round-up of hill cattle and an autumn culling of the least desirable animals must be considered as a possibility.

On the other hand the second killing peak, however, is of animals of c. 24-30 months of age. They have certainly passed through one winter period and indeed a capacity for the over-wintering of cattle to a greater extent than is required for herd maintenance, must have existed. Such cattle, for example, if female, would have been killed just prior to the beginning of their breeding lives. It seems more likely that they represent the males surplus to herd maintenance which were kept for meat. Cattle at that time would probably not have reached their maximum size before about six years of age, nor have been available as working oxen before that age. There does seem some evidence that the economy was able to satisfy a demand for young cattle kept primarily for the production of tender meat.

* According to Silver, I., Science in Archaeology, Thames \& Hudson, 1963.

It was also noticeable with the cattle-bones that they tended to fall into two different size groups, one being much larger than the other. There was an insufficient number of specimens to justify a numerical or metrical analysis. Two such groups, however, may indicate either sexual dimorphism in the breed of cattle present in the area at that time or two different breeds of cattle present in the area at that time. The physiography of the area suggests that both a highland and a lowland form of agriculture would have been practised and the possibility of the presence of different breeds must be considered as a possibility. The highland areas with a summer pastoral potential would have been available for auxiliary exploitation of considerable economic value in the production of animal protein, and it is hardly likely, except perhaps for limited periods of time when food supplies outran the human demand, that it would have been neglected.

## Table VII

Bone-types of cattle present in two sample-areas of the Black Ditch (identified in situ), expressed in percentages. Each sample is the total assemblage taken from a 5 -foot length of the ditch. Sample i was taken from the westernmost surviving section of the ditch, close to the edge of the sand-quarry as it was in 1953 . Sample 2 represents the eastern end of the ditch, close to Buildings $D_{2}$ and $D_{3}$ : there the ditch was less deep, hence both the smaller number of specimens and the probability that Sample 2 is more purely representative of the first phase of infilling. The very small sample analysed in Table IV was later taken in difficult conditions from a 12 -inch length of the ditch almost exactly midway between the two areas whose yields are examined here. Two bones of sheep were present in Sample 1, and Sample 2 contained one dubious specimen. A bird-bone occurred in Sample I and a boar's tusk in Sample 2. Otherwise, this table is a complete record of the identified specimens from the two sections of the Black Ditch in question.

|  | SAMPLE I (western) | SAMPLE 2 (eastern) |
| :---: | :---: | :---: |
| Horn | $\cdot{ }^{8} 8$ | - |
| Skull-Maxilla fragments | $6 \cdot 88$ | $6 \cdot 49$ |
| Mandible | 22.54 | $23 \cdot 38$ |
| Teeth | 53.92 | $6 \mathrm{I} \cdot 03$ |
| Vertebrae | I. 96 | - |
| Ribs | I.96 | I'3 |
| Pelvis | $2 \cdot 94$ | - |
| Scapula | $2 \cdot 94$ | $1 \cdot 3$ |
| Leg-bones and Joints | $2 \cdot 94$ | 3.9 |
| Parts of Hoof | $2 \cdot 94$ | $2 \cdot 6$ |
| Number of identified specimens | 102 | 77 |
| Number of unidentified specimens | 170 | 141 |

Comparisons made between the Yeavering cattle and those of similar date quoted by Jewell ( $\mathrm{I}_{9} 63$ ) * show that on the whole the Yeavering beasts were smaller than those from Sedgeford, Northold and Kirkstall. This may be the result of differences in the economies arising out of different environments.

[^1]
## APPENDIX II

## Charcoal

Thirty-eight samples of the charcoals found at Yeavering were examined in the laboratory of the Royal Botanic Gardens at Kew, through the kindness of the Director, Sir George Taylor.

All but three samples were found to contain Quercus sp. of robur type (oak). Three contained nuts of Corylus avellana (hazel). Two included the wood of Fraxinus excelsior (ash); two, Betula sp. (birch); one, Alnus sp. (alder); and one, Taxus baccata (yew).

The distribution of these identified samples is set out in the appended table, in which the positive fieldidentification of oak in the wall-sockets of Building $\mathrm{D}_{3}$ has been included (specimens were numerous in $\mathrm{D}_{3}$, but all were so frosted and crushed as to be practically beyond conservation). In all other instances, laboratory examination of representative samples has confirmed the large number of field-identifications which indicated the predominance of oak.

The samples examined at Kew included all the specimens that could be most certainly accepted as the remains of wall-timbers. The other samples submitted were those so stratified as almost to preclude the possibility of 'contamination' from earlier cremation-pits. The samples from the demolition-troughs of Buildings A2, $\mathrm{A}_{5}, \mathrm{~A} 6, \mathrm{C}_{2}$ and $\mathrm{C}_{3}$ seem most likely to represent the debris from associated hearths, since those halls were not destroyed by fire. On the other hand, the samples taken from the packing-soil of Buildings $\mathrm{A}_{1}$ (c) and $\mathrm{A}_{3}(\mathrm{~b})$ must wholly or in part refer to the earlier structures on the same sites. The occurrence of birch-wood in the outer trench of the Great Enclosure ('fort') is of doubtful significance: the available sample lay at the junction of packing-soil and demolition-debris, and the excavator may or may not be right to suppose that this was derived material referable to some adjacent and earlier structure.

To sum up, the results of examination both in the field and in the laboratory lead to the same conclusion: throughout the development of the 'Yeavering-style' wall, the chosen material was oak. The identified samples from Building $\mathrm{DI}_{\mathrm{I}}(\mathrm{b})$ suggest that ash may possibly have been used, as in later periods, for its lightness and flexibility, in roof-building (in normal circumstances, roof-timbers have least chance of archaeological survival - where the building is destroyed by fire they are most likely to be reduced to white ash, and their remains will in any case be the first elements to be ploughed away in later times).

In the last analysis, what is most significant is the ecological aspect of the evidence for local exploitation of oakforests in the sixth and seventh centuries. If enough suitable soil-deposits can be found in the region, the location and extent of those forests could possibly be ascertained through a programme of pollen analysis. While it is perhaps worth noting that planted oaks do well at the present day in the region's heavier soils (ash flourishes, and alder and hazel too, close to the Yeavering whaleback), little can be inferred from the modern situation. There is, on the northern slope of Yeavering Bell, a little wood of stunted scrub-oaks; but it offers no timber suitable for building, and its often-advanced claim to consideration as a survival from antiquity is in any case quite uncertain.

The possibility must be borne in mind that political showmanship at royal level might at times have led to long-distance transportation of good timber, and the quality of the materials used in the various phases of ${ }^{*}$ Yeavering's building-history is obviously likely to register variations in the township's importance; yet something of the local environment must be reflected in the evidence. The lavish use of heavy oak in the first halllike buildings (which were constructed before the site reached the peak of its importance) is likely to indicate that at the outset large oak trees were available in the district. The thinner walls and progressive constructional
refinements to be seen in Buildings $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ could perhaps show some regard for greater economy in the use of timber, despite the size and massiveness of those imposing halls. The same trend to slighter structures is far more strikingly in evidence in the later phases - but those are the phases of the township's decline and death.

None the less, whatever the qualification required by consideration of the site's political history, the evidence seems at least to hint at an early abundance and a latterly growing scarcity of heavy oak timber. Practical needs will always have dictated that the raw material should be found as close to hand as possible; and so probability favours the hypothesis that the bulk of the timber was locally grown (as likely as not, within the bounds of this or a neighbouring royal estate).

It has proved impossible to estimate with any useful degree of accuracy the total acreage of woodlandclearance represented by the whole range of Yeavering's timber structure; but, since Yeavering-style building characteristically demanded the use of a high proportion of long, straight timbers of massive section, the area of deforestation must have been significantly large. And as the early phases of oaken extravagance might equally well be interpreted as an effect, rather than as the cause, of such extensive clearance, it is possible that the evidence carries the implication of large-scale agrarian development of the heavy lands bordering the lightsoil zone in which Ad Gefrin stood. As Appendix I testifies to the local importance of cattle-breeding, and suggests the possibility of a growing shortage of winter fodder, this hypothesis could find particular context in a need for expansion of pastureland around the growing nucleus of the royal estate.

Table VIII

|  | $\left.\right\|_{(\mathrm{a})} ^{\mathrm{Ar}}$ | (b) | $\mathrm{A}_{1}$ (c) |  | $\begin{aligned} & \mathrm{A}_{3} \\ & (\mathrm{a}) \end{aligned}$ | $\begin{aligned} & \mathrm{A}_{3} \\ & \text { (b) } \end{aligned}$ | $\mathrm{A}_{4}$ | $\mathrm{A}_{5}$ | A6 | Cl | $\mathrm{C}_{2}$ | $\mathrm{C}_{3}$ | $\mathrm{C}_{4}$ | DI <br> (b) | $\begin{aligned} & \mathrm{D}_{2} \\ & \text { (a) } \end{aligned}$ | $\begin{aligned} & \mathrm{D}_{2} \\ & (\mathrm{~b}) \end{aligned}$ | $\mathrm{D}_{3}$ | $\mathrm{D}_{4}$ | D5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OAK <br> Quercus sp. of robur type | $+$ | $+$ | + | () | $+$ |  |  | $\oplus$ | $\oplus$ | $+$ | $\stackrel{(\oplus)}{ }$ |  | + |  | $+$ | $+$ | + | $+$ | + | $+$ |
| ASH <br> Fraxinus excelsior |  |  |  |  |  |  |  |  |  |  | (1) | $\oplus$ |  | $+$ |  |  |  |  |  |  |
| BIRCH <br> Betula sp. |  |  |  |  |  |  |  |  |  |  |  |  | $+$ |  |  |  |  |  |  | $\oplus$ |
| ALDER <br> Alnus sp., prob. <br> A. glutinosa |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| YEW <br> Taxus baccata |  |  |  |  |  |  |  | $\left.\right\|^{\oplus}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| hazel (nuts) <br> Corylus avellana |  |  |  |  |  |  |  |  | $\oplus$ |  |  |  |  | $\stackrel{+}{ }$ |  |  |  |  |  |  |

$+=$ Samples certainly representative of material used in construction of the building named.
$\oplus=$ Material possibly derived from hearths or from scattered remains of earlier structures.

## APPENDIX III

## CATALOGUE OF YEAVERING'S GREMATION-BURIALS

AND THEIR ASSOCIATED ARTIFACTS
with notes on two other deposits including cremated bone

## Introduction

## Contents

Section A: Catalogue of Yeavering's cremation-burials and associated objects. All the descriptions of pottery set in italics, and most of the drawings of pottery, are from the pen of Miss I. McInnes, of the University of Edinburgh, who has kindly examined all the relevant ceramic material.

Section B: A note on the scattered stones and cremated bones overlying Building E.
Section C: A note on the prehistoric (ritual?) pit close to the N.E. corner of Building Ci.
Section D: Catalogue of those 'derived' prehistoric sherds for which there is no direct evidence of original association with cremation-burials.

Section E: An overall survey of Yeavering's prehistoric pottery, by Miss McInnes.

## Introduction

It appears that significant 'ritual' use of the Yeavering whaleback began (to quote Miss McInnes) 'shortly before 2000 bc'. The latest cremations with datable artifacts ( 1 and 27 in the catalogue, each accompanied by a segmented glass bead) were deposited apparently during the Roman Iron Age.

The crucial question to be asked here is whether or not the site was more or less continuously in use as a cremation-cemetery during the whole of the period spanned by those chronological extremes. The answer will rest on a choice between alternative assumptions. The problem exists in the following terms:
(1) There is a long series of prehistoric urned and/or furnished cremations deposited in pits. These depositions can of course be dated by reference to the associated artifacts. It appears that this early series of datable depositions ends somewhere about the beginning of the first millennium вс.
(2) In addition there are thirteen unurned cremation-burials in pits (over one-third of the depositions examined). Of these, five ( $1,27,28,31,32$ in the catalogue) are shown stratigraphically to have been set in place after the inception of the 'Celtic' field-system and probably while it was still in use; and two among them ( 1 and 27) are those with beads indicative of deposition during the Roman Iron Age. The rest, lacking datable artifacts, remain in chronological limbo.
(3) If the currently accepted view of the beginning of plough-agriculture in North Britain is correct, there is accordingly a gap in the series of datable cremation-deposits during the greater part of the first millennium BC.
So it is that the question of continuity cannot be answered save by choice between alternative assumptions. Is it to be assumed, on the one hand, that the temporary absence of archaeological datable artifacts constitutes evidence of an actual break in use of the cremation-cemetery? Or is it to be assumed, on the other hand, that the ending of the series of urned cremation-burials simply betokens a change in ritual fashion (in which case some or all of the unurned, undatable burials could well provide the link between the two 'dated' phases)?

At the outset, taking a broad view of the issue, it seems that the former assumption goes against the general grain of the evidence. The whole history of the Western Ring-ditch is hardly to be explained save in terms of institutional continuity. For centuries the focal point for both urned and unurned cremation-burials, its significance survived even the last and greatest change in funerary fashion, and ultimately it became the formal centre for the site's first inhumation-burials.

Moreover, there is no indication of cultural intrusion or interruption during the phase that is crucially in question. The first major change of disturbance that is in evidence follows centuries later, when most of the site was put under the plough. The events of that later time are not irrelevant, however, as they are likely to reflect something of the state of things in that immediately preceding phase which is so obscure; and they deserve brief review. First it must be noticed that although the area of the Western Ring-ditch was evidently reserved from the plough (so that there is no question of downright iconoclasm), the fact remains that ground containing peripheral burials was opened to cultivation on a large scale. Clearly there was at least some physical restriction of ritual activity; but the token burials so oddly inserted into the field-gullies seem to show that some part of the local community still attached importance to the site's ancient tradition. These are the very burials that bring the period of archaeological obscurity to an end; and their testimony, in such circumstances, little suggests that that preceding period can have been without its own cremation-burials, more freely deposited.

Nevertheless, it is evident that there was a progressive decline in the quality of funerary observance at Yeavering, and it will later be shown that this has important bearing on the problem. Two successively degrading changes in funerary fashion can be recognized with certainty. First the use of urns is abandoned, so that the unurned mode of deposition becomes the sole, characteristic burial-practice of the later centuries in the history of Yeavering's cremation-cemetery. Secondly, 'full' depositions of the human ashes give way to 'token' depositions. Thus, although it obviously cannot be said that all unurned cremations at Yeavering must be 'late', it can be said that all 'late' depositions there are likely to be unurned, usually unfurnished and often 'token'.

Broad though that generalization is, it is soundly based and allows approach to a question of fundamental importance. So far we have explored merely the uncertainties created by some cremation-deposits which are in evidence but are archaeologically undatable; and it has been taken for granted meanwhile that the evidence recovered from the site is fully representative of each ancient phase. That assumption, however, is open to most serious doubt, for it leaves out of account those effects of physical erosion which are plainly seen to have removed so much from Yeavering's archaeological record. When all but one of the items in the catalogue of cremationdeposits testify in varying degrees to the severity of the erosive forces, it is essential to ask whether the surviving evidence does indeed constitute a fairly representative sample. Has erosion acted equally on the remains of all periods, or has it operated selectively?

Doubtless the 'Celtic' plough damaged some earlier cremation-burials, and may well have removed others; but the chief agency of destruction is clearly more recent ploughing. The whole of the whaleback's crest had been carved into the 'lands' of rig-and-furrow cultivation, and those in turn had been drastically reduced by later ploughs. Ad Gefrin's buildings were stripped of their floor-levels and hearths, and the disappearance of Building $\mathrm{D}_{5}$ 's western wall-trench is a remarkable demonstration of the plough's ability to plane down the ground-surface. Obviously this destructive process has indeed been selective: for shallow deposits, naturally, have been removed from the archaeological record more quickly and completely than deep deposits. The application of this elementary principle to the forms of cremation-burial in question produces interesting results.

The intention to house an urn below ground imposes a practical discipline on the digger of the pit: the height of the urn determines the minimum depth of the pit. Hence, the taller the urn, the longer some trace of it is likely to survive the plough. Small urns are likely to be placed in shallow pits, and shallow pits are likely to be quickly destroyed. That is one aspect of the selective process; but there is another which is more relevant to the particular issue now in question.

It was observed at Yeavering that the pits containing urnless depositions of human ashes were generally shallower than those that contained urns, which would seem to be the natural consequence from the use of the less exacting rite. Unurned cremations, after all, require pits of lesser capacity; and that capacity nèed not be achieved by the digging of a relatively deep, narrow pit - it is always easier to dig a broad, shallow hole. And,
of course, when the labour-saving 'token' form of cremation-deposit comes into vogue, burial-pits will tend to become even smaller and shallower. Accordingly, any assessment of the cremation-cemetery at Yeavering must make allowance for the probability that the plough's selective destruction has removed more from the 'late' (unurned) phases than from the 'early' (urned). There is special need for what is termed scholarly caution in any attempt to use statistical methods in approach to the problem of the putative 'archaeological gap'.

Equally there must be no recourse to dangerously empty arguments from silence. What is in question at this point is simply the validity of the negative evidence, and this discussion of general likelihoods would have no force were there not positive indications that the plough had indeed removed the physically most superficial elements from the archaeological history of the Yeavering cremation-cemetery. Such indications were present and were observed, and must now be considered under three headings.

First, there was a remarkable scatter of cremated and pounded bone throughout the bottom level of the modern topsoil, and in all the fillings of later foundation-trenches, especially in the S.W. quarter of the site (as Ian Richmond characteristically remarked, 'like the bits of nut in a well-mixed Christmas pudding'). Ideaily every fragment should have been extracted with tweezers, counted and weighed; but this was an emergency excavation done on a shoestring budget, and all that can be recorded is the impression that the bulk of this material far exceeded what could be expected from the disturbed cremation-burials that were actually in evidence. There was, besides, a notable lack of correspondence in the number of stray potsherds that could have been expected to survive had all the disintegrated deposits been urned.

Secondly, there was the evidence provided by 5 and 10 in the catalogue. In those two instances it was clear that urns had been pulled out of the ground at a time when the accompanying soil and ashes in the pits had fully consolidated (conceivably in the course of levelling during the building of Ad Gefrin, when curiosity might well have outweighed respect for an outmoded form of funerary observance?). How can those urns have been so precisely located unless their presence was signalled at ground-level by some marker, such as a cairn, that has since vanished?

Thirdly, and perhaps most disturbingly to the point, was the evidence presented in Section B of this appendix. At the one place (a natural hollow) in the whole of the Yeavering whaleback's crest allowing of any survival of ancient, superficial deposits, there occurred the remains of an unurned, cairned cremation-deposit that had been laid on or very close to the ancient land-surface. Even in so uniquely favourable a position, that deposit had been severely damaged and spread by recent ploughing. It is salutary to calculate the statistical odds in favour of the proposition that this was not actually the only superficial cremation-deposit ever laid down at Yeavering; and the identification of the Eastern Ring-ditch as a ploughed-out round-barrow, originally covering an urned cremation placed at ground-level (pp. 83-5), lends still greater weight to this argument.

To sum up, it is greatly to be doubted whether the whole history of the Yeavering cremation-cemetery is completely or evenly represented by those remains that happen to have survived recognizably. While it is evident that unknown numbers of both urned and unurned deposits must have been destroyed by the plough, it appears that the operation of this selective agency is likely to have been specially effective in removing unurned and shallow depositions from the archaeological record. Hence, since the vestiges that happen to survive suggest that shallow, unurned depositions were characteristic of the cemetery's later phases, it must be concluded that any burials of the first millennia Bс and AD are on the whole likely to have been the most vulnerable to destruction. That is the truly 'scientific' context in which the issue of continuity must be considered: the negative evidence is gravely suspect, and the reality of the 'archaeological gap' is correspondingly dubious.

These considerations would allow the future site of $A d G e f r i n$ to be envisaged, experimentally, as a place studded with little mounds and markers that were easy game to builders and ploughmen. The Western Ringditch would retain its focal importance in this picture, since the concentration of exceptionally deep cremationpits within and around it must in any case be significant; but it would be surrounded by a zone of shallower depositions in which later and possibly humbler burials would predominate. This was the model that gradually formed itself in the excavator's mind as the evidence accumulated; but, because the large sum of money required for carbon-dating of all the unurned deposits could not then be found, the desired test could not be
applied (and flooding of the cellar in which the material was later stored finally removed the possibility). Nevertheless the evidence is sufficient to justify positive suspicion that it was prolonged (and in some significant sense, continuous) prehistoric use of Yeavering as a ritual centre that laid the foundation for its future history. That is not of course to suggest that its ritual activities were maintained throughout at a constant pitch; and equally it would be rash to assume that the crude concept of 'ritual continuity' involves no other activities than the conscientiously regular deposition of burials discoverable by archaeologists.

Within the evidence now to be catalogued there must also lie social implications. Those cannot be considered here at length; but, since it is the main purpose of this introduction to expose and define possibilities for future investigation on other sites, it is legitimate to conclude by offering some questions and impressions. Were the urned, unurned, 'full' and 'token' forms of cremation-deposit originally the codified correlates of various levels in prehistoric society (as in later, Germanic, society)? If so, the history of Yeavering's cremations might speak of an originally upper-class institution later both perpetuated and degraded by the devotions of peasants. If there was really such immensely long continuity as is suggested, what element in prehistoric society preserved it? - surely none other than that which in its conservatism held even longer to a degenerate form of Bronze-age ceramic tradition. Here Piggott's distinction between conserving and innovating societies is apt to the present writer's concern with the classes that existed within a single northern society. In what modern society that retains a peasant class is there any more conservative a man than the peasant? - any man more likely to 'know his place' and keep strictly within his old-fashoned rights? That is his role; and equally it it is the rôle of the ruler, the aristocrat, to innovate. It is the writer's impression that the entire archaeological record of Yeavering responds to interpretation in those terms: the element of continuity resides in the dogged conservatism of a peasant population rooted in 'Bronze-age' times and traditions; and, for the rest, all is the story of the successive arrivals of various new overlords and ideas and the compromises that resulted. If, as Yeavering's evidence suggests, the field-system, the oppidum and other upland enclosures directly or indirectly reflect the influence of innovating, mobile overlords (pretty down-at-heel aristocrats, it may be supposed) it would seem that those rulers were no more successful than Edwin in suppressing the traditional 'ritual' mores of a peasant community securely entrenched in a cultural backwater.

But evidently the cremative tradition was broken long before the historical emergence of $A d$ Gefrin. Under what stimulus was the inhuming rite at last adopted? That question, most urgently requiring wide research in the field, has been discussed in Chapter 5 of this book (pp. 244-9), where it is suggested that there may be some connexion with the early inhumation-cemeteries of the neighbouring Tweed-Forth region. Two points have particular relevance to the subject of the present discussion. First it appears that the inhuming rite was widely accepted at the 'native' level of Yeavering's society, as clearly cremation had been. Secondly, since Yeavering's first inhumation-burials were laid formally and deliberately at the focal point of the cremation-cemetery, it would seem that the institutional importance of the site's ritual activities was not affected by changes in burialfashion; and it is conceivable that burials represent merely the archaeologically accessible aspect of a more complex function.

## Section A:

## Catalogue of Cremation-Burials and Assogiated Artifagts

(numbered in correspondence with Fig. 73)
(I) Charcoal-blackened patch in surviving filling of ancient field-gully, disturbed by bulldozer. Of seven fragments of cremated bone associated, four appeared to have been dragged out of position; but three seemed to be in situ in a little pocket of soil about 3 inches across and $\frac{1}{2}$ inch deep, which contained also the segmented glass bead GL2 (Fig. 86 (b)). The stratigraphy and the form of the bead combine to indicate that this deposit was made during the Roman Iron Age (see also No. 27).
(2) The lowest 3 inches of a pit 9 inches in basal diameter, elegantly circular and with a sharply cut angle between its walls and remarkably 'flat' floor (like the interior of a painstakingly well-made pot). Resting on the base of the pit was a root-riddled wall of crumbled pottery that gave no hint of decoration, and this still preserved the distinction between a narrow, outer fringe of black soil (with minute but perceptible inclusions of charcoal) and an inner core of clean, sandy soil speckled with the remaining particles of
many fragments of cremated bone. Field-assessment (there could be none other): badly baked urn inverted over ashes of poorly cremated and/or poorly nourished body: prehistoric, and within the gross meaning of the term 'Bronze-age'. Scattered sherds of undecorated Peterborough-type were also present.
(3) The remains of a pit less regular in plan, with a dished base, filled more uniformly with black soil.Although the distribution of cremated bone-fragments retained the outlines of a cruce cone, standing on its truncated apex, it was evident that the original filling of the pit had been disrupted by the recent impacts of plough and bulldozer on a reasonably well-baked urn whose discoverable characteristics may now be described from the surviving fragment. Fig. 115 (a) Wall-sherd of orange ware with black inner face; slip; decorated with stab-marks or dragged fnger-nail impressions. Fabric rather friable with coarse grit in section. (b) Wallsherd of dark brown ware with orange outer. face; slip; decorated with applied cordon. Fabric rather friable with some grit in section.
(4) The remains of a pit filled with black soil, 2 inches deep and $7 \frac{1}{2}$ inches across, containing more than 20 immediately recognizable fragments of cremated bone. The 'ghosts' of two thick, ill-baked sherds suggest that this was an urned cremation-deposit. A Beaker sherd (Fig. I23 (12)), found lying horizontally on the base of the pit, must be regarded as being in some sense intrusive.
(5) Like the last, a black-filled pit severely reduced by recent disturbance, but with a roughly conical intrusion of brown soil which tapered downwards into a flat-bottomed and precisely circular depression of $6 \frac{1}{4}$-inch diameter in the floor of the pit. All the numerous fragments of cremated bone occurred within the lower levels of the brown soil; and the evidence was consistent with the hypothesis that an urn, standing on its base, had been removed intact (before the site was so drastically attacked by the plough and the bulldozer) and that some of its contents were emptied into its former 'socket'. This hypothetical event finds most reasonable context in antiquity, since such a clean extraction would be implausible in an age when the location of the urn was not visibly marked. The alternative explanation - that the cremationdeposit was inserted into the filling of an earlier pit - is attractively simple; but it fails to account either for the circular impression on the floor of the pit (just such as would be made by the base of a pot) or for the brown soil so characteristic of Yeavering's whole series of cremation-deposits.
(6) This, the disturbed cremation-deposit in the central stone-hole of the Western Ring-ditch, has already been described (pp. ro9-16). It lacked any certain ceramic associations. The sherd illustrated in Fig. II5 merely demonstrates that pottery with Food-Vessel characteristics had been used on the site before the overlying monolith was removed: it would be unsafe to regard it as anything other than a redeposited 'stray'. Wall-sherd of black ware with red-buff outer face; decorated with oblique stabs producing false relief. Hard fabric with small and large grit in section.
(7) Shallow pit of 10 -inch diameter, with fragments of cremated bone scattered throughout the remains of its original black filling. Intrusive brown humus indicated that a burrowing rabbit or mole was responsible for severe disturbance of the deposit. Part of the base of an urn survived in situ, carrying a small island of densely packed bone-fragments; but the rest was so crumbled and confused as to allow only five small wall-sherds to be recognized with certainty. All that can be said about the urn is that it was of thick, illfired ware, including many large grits; externally pink-orange, internally grey-brown, apparently undecorated: basal diameter probably about 6 inches. Directly underlying the base of the urn were the Corded Beaker wall-sherds illustrated as Fig. 123 (14), and catalogued in Section D of this appendix.
( $8 \& 9$ ) Shallow pits narrowing sharply to rounded bases. In each case a small quantity of cremated bone, finely pounded, lay directly on the floor of the pit, sealed by an apparently intact deposit of black soil containing much crushed charcoal. Unurned, 'token' deposits such as these appear to be characteristic of the site's last phase of use as a cremation-cemetery: $1,27,28,31$ and 32 in this catalogue had been inserted into field-gullies, and the segmented beads deposited with I and 27 indicate a date within the first half of the first millennium $A D$.


Fig. 115. Prehistoric pottery associated with cremations 3, 6, 11, 18 and 21 (jet disc-beads associated with II are shown in Fig. I 19). Scale $\frac{1}{2}$.
(10) Although disturbed and planed down by ploughing, this cremation-pit still retained a 3 -inch depth of intact deposits from which the procedure of deposition can be inferred. Its filling resembled that of 2 in this catalogue in that the horizontal section of its lowest level presented a concentric, target-like pattern of deposits: an outer border of black soil with charcoal, its inner edge precisely defined over a wide, true arc and at one point bounded by a large rim-sherd (Fig. 118 (iod)) which, standing inverted and almost vertically, was certainly in situ; and, within that circular zone, an area in which the floor of the pit was covered directly by cremated bone-fragments and clean sand (the bone still piled up to its greatest extent around the centre, a cone truncated by disturbance from above). A smaller, crumbled sherd from the same rim, also inverted and still touching the inner edge of the black border, had fallen inwards and leant directly against and over the bone-deposit. The larger and smaller rim-fragments were linked by a circular trail of totally disintegrated sherds which spread inwards and upwards over the bone-deposit but never transgressed the outer boundary set by the ring of black packing-soil. Hence it was evident thatoriginally the pit held an inverted urn which inwardly preserved an air-space over and around the cremation-deposit and was outwardly packed around with black soil. In this respect it offers a parallel to 19 in this catalogue; and since at the basal level the spread of the bone-deposit (strictly circular in plan) had obviously been confined by the inner edge of the urn's rim, it is at least likely that the bone-fragments had been poured into place through a hole in the vessel's base, as in 19 . Otherwise it must be assumed that the ashes of the deceased were in this instance put into the ground in a bag of cloth or skin.

The curious sherd illustrated in Fig. is 8 (ioe) involves a further ceramic object, more suggestive of a clay tray than a pot: convincingly stratified in the bottom inch of the intact, black packing-soil, it too is possibly a mere 'stray', but its association with charcoal presumably from the ashes of the cremation-pyre might offer special context for its occurrence as an oddity.

So far the evidence is reasonably clear; but the presence of two further rim-sherds (Fig. ri8, (roa and b)) has yet to be considered. They are most unlikely to have belonged to the urn discussed above, since although they are of similar type they are of thinner form. With the wall-sherd shown as Fig. I 8 ( 10 c), they lay at the relatively high level where the intact and disturbed deposits met, around the centre-point of the pit, in plan, and directly overlying the surviving part of the bone-deposit; from which it would appear that they fell immediately into the void opened up by the destruction of the primary urn's upstanding base. Hence it is not unlikely that they were derived either from an overlying ('ritual'?) scatter of broken crocks or from a whole pot or pots deposited at a level nearer the original surface. The fact that only rimand wall-sherds were so derived perhaps justifies the latter speculation, since it would follow naturally from the deposition of secondary urns in the same inverted fashion as the primary vessel.

Slender though the evidence is, it is possibly worth recording the writer's impression that this burial was disturbed in antiquity, long before the plough planed down its containing pit. Normally, fragments of the relatively robust bases of such urns as are in question survive recognizably where all else is reduced to an amorphous state; but here not a single base-sherd could be found. It seems that the greater part of the primary urn must have been pulled out of the ground, leaving behind only the zone around the rim; and this conclusion is supported by the stronger evidence for early extraction of the urn originally present in the pit noticed as 5 in this catalogue.
(1I) The cist-burial disturbed by the construction of Building D 2 (a) (p. 97). The cist's remains suggested that it had originally been roughly square in plan, built closely around the encrusted urn whose rim was found in close association with cremated bones and nine disc-beads of jet. It appeared likely that the whole had been surrounded and covered by a small cairn. Scattered crumbs of the same urn, fragments of cremated bone, and six further disc-beads (Fig. II 9, upper) lay round about in the post-Roman building-levels. Rimsherd of grey-brown ware with orange outer face, decorated with slip-applied chevron and stab marks. Hard fabric with fine grit in section. (Fig. 115 .)

For another instance of 'Dark-age' encounter with a prehistoric cremation-burial, see 33 in this catalogue.
(12) Black-filled pit, disturbed by a post-hole of Building D3's fence. A small handful of cremated bone, with two small, unidentifiable sherds of orange facing from an urn.
(13) Unurned cremation: surviving quantity of bone-fragments very small. While the pappy state of the bone particles may be due, in this as in some other instances observed on the site, to exceptionally fine comminution, it aroused suspicion in the field that this 'token' burial was representative of a child.
(14) Extremely small and shallow pit, containing fragments of cremated bone and charcoal, with one featureless sherd of brown ware with large grits.


Fig. in6. Diagrammatic cross-section of cremation-burial 19: (1) Clay sealing-layer; (2) black soil, densely packed, with much charcoal; (3) air-space; (4) cone of cremated bones, showing stratification of sherd detached from inside of urn's base, in relation to exceptionally large fragment of bone. Scale $\frac{1}{4}$.
(15) Disturbed by two post-Roman inhumation-graves, into which cremated bone and a number of small, crumbled, heavily gritted sherds had spilled.
(16 \& 17) contained undecorated wall- and base-sherds of urns, with small quantities of cremated bone and charcoal. Both pits shallow, and obviously truncated.
(18) A pit of greater depth (8 inches), showing even in its lower, surviving part clear traces of wind erosion (S.W. wind), and containing cremated bones and pottery deposited over a layer of silted sand; the whole indicative of the weather-conditions prevailing during an interval between the digging of the pit and its ritual infilling. Burial-deposit disturbed, but it is likely that the urn was inverted. (a) Rim sherd of black ware with large, protruding grit; (b) Rim sherd of same ware, diameter $5 \cdot 75$ inches. (Fig. 115.)

It is possible that sherds (a) and (b) were in some sense intrusive. Crumbled fragments of coarse orange ware, heavily gritted and very badly fired, appear to be representative of the cremation-urn.
(19) In several ways, Yeavering's most remarkable cremation-burial. It produced not only the one intact cremation-urn found on the site, but also clear evidence of the procedure followed in the deposition of the burial (Fig. II6 and Plate 1io). The circumstances of its discovery and investigation must be described.

The first sign of its presence was a roughly circular area of clean glacial clay (unbaked but solidly compressed and bedded into the normal sand-and-gravel subsoil) which, 18 inches in diameter, lay directly under the recent ploughsoil and so exhibited two faint plough-scratches. At first this feature was mistaken for the bottom level of a thick clay hearth; but, when one half of its upper surface was scraped down, a central hole (like a mousehole, nearly $\frac{1}{2}$ inches across) appeared; this proved to be an ancient perforation in the base of an inverted Collared Urn. When the clay 'lid' had been removed, it could be seen that black soil was tightly packed between the outside of the urn and the walls of the pit (the tamping down of the soil had crushed fragments of charcoal at all levels). The inside of the urn, however, remained a void: a taper, lowered through the hole in its base, revealed a conical mass of cremated bone which was found to rise to a height of io inches from the floor of the pit. When the black packing-soil had been removed, the urn was lifted gently and cleanly, leaving the cone of interlocked bone-fragments substantially intact. At once it could be seen that the bone had been strictly confined within the shell of the inverted urn. When the mass of bone was dissected, a flake of pottery was found stratified within it, $4 \frac{1}{2}$ inches below the apex of ithe cone and actually touching the largest fragment of bone in the whole deposit. The flake of pottery was found exactly to fit a scar on the inside of the urn's base.
Hence the burial-procedure can be reconstructed as follows:
(1) The urn, with the hole already bored through its base, was stood upside-down on the carefully levelled floor of the pit.
(2) The pounded fragments of cremated bone were then poured through the hole in the urn's base (as if through the chimney of a circular house). A large piece of bone happened to lodge across the hole and was tapped through, thus detaching the stratified flake of pottery.
(3) If (as seems likely) it had not already been put into place, the black packing-soil was now tamped around the outside of the urn. Since, in addition to its charcoal, this soil contained several burnt pebbles, it may be suspected that the material was gathered from the site of the funeral pyre.
(4) The packing levelled flush with the outer surface of the urn's base (which was left absolutely clean), the pit was filled to the top with the clean clay that so effectively sealed it for many centuries. Unless it is to be supposed that the various truncated cremation-urns nearby originally stood with their upper parts at or very close to the ancient ground-surface, the clay 'lid' of this pit can hardly have been less than 6 or 8 inches thick before ploughing began to plane it away.
Urns that have been found inverted, with their bases damaged by the plough, occupy a good many shelves in our museums. Possibly some will repay re-examination in the light of these observations. No. 33 in this catalogue, although redeposited, may offer another instance of the same burial practice.

Description of urn (Fig. 1I7): brown ware, outer face reddish-yellow with black patches near rim; diameter of rim 13.25 inches, diameter of base 5 inches, height 18.5 inches: decorated on inner edge of rim with fine oblique incisions, on collar and neck with lunate stamp. Hard fabric with much large grit protruding. Base perforated from outside after firing (diameter of hole $I_{4} \frac{1}{4}$ to $I_{2} \frac{1}{2}$ inches).


Fig. 117. Collared urn from cremation-burial 19. Scale $\frac{1}{4}$.
(20) A shallow, bag-shaped pit containing a large quantity of cremated bone so finely comminuted as to leave no fragment identifiable. Since this pit had been truncated like the rest, it is reasonable to assume that this was a 'full' cremation-deposit. An almost spherical lump of flint, $\frac{3}{4}$ inch in diameter (not perceptibly 'worked', but battered as if it had been used as a strike-a-light - or exposed on a cart-track) was stratified in the mass of bones: unburnt, it appeared possibly to have been deliberately deposited with the burial. An unurned cremation, presumably but not certainly prehistoric.
(21) Black-filled pit with sandy lenses. Cremated bone overlying base-sherds of urn, but some wall-sherds on top of the bone deposit. Wall- and base-sherds of red ware. Shoulder decorated with (?) twisted cord impressions in herring-bone. Lower wall decorated with criss-cross grooving produced with triple-ended implement. Friable ware with much grit in section. (Fig. II5.)
(22-24) Unurned cremations, probably 'full' deposits. (23) and (24) each contained a small flint flake (in neither case with retouch).
(25) A drastically reduced cremation-deposit, in a pit obliquely planed down by later damages to a maximal depth of $3 \frac{1}{2}$ inches. On the better-preserved side, a base-sherd obviously in situ still carried a layer composed of fine particles of cremated bone in a matrix of yellow-brown sand, the whole overlaid by a wallsherd lying almost horizontally. For the rest the pit was filled with black soil that evidently had collapsed inwards from its edges: close study of the included materials (charcoal, cremated bone and ghostly crumbs of what was once pottery) showed that this deposit was neither simple nor 'original', but testified to complex damage and decay. The following hypothesis is consistent with all the observed evidence: (1) A pot containing cremated bones was set upright in the pit, and packed around with dark soil containing much charcoal; (2) initially, an air-space was preserved within the pot by some kind of lid, which was accidentally removed during later use of the site; (3) thereafter the deposit was increasingly subjected both to mechanical damage and the consequent effects of natural decay.

Sherds of flat-based vessel of red-brown ware; diameter of base 4.6 inches; decorated on neck and above base with horizontal rowes of oblique stab-marks; very thin fabric, rough-textured with much small grit protruding. (Fig. I I8.)
(26) A shallow pit ( 6 inches deep, from the subsoil surface), close to the edge of the natural hollow which allowed Building E's ground-level partially to survive. Within a sandy, grey matrix in which small fragments of charcoal and cremated bone were interspersed (as plums in a pudding), lay one large sherd and several small crumbs of pottery.
Large rim- and wall-sherd of black ware with pink-tinged outer face; diameter 8 inches.
Outer face and inner edge of rim covered with heavy rustication. Top of rim decorated with row of oblique twisted cord impressions. Hard, heavy fabric with much large grit in section. (Fig. 118.)
(27) A pit 8 inches wide and 4 inches deep, dug into the loamy silt of a field-gully. Basal layer of cremated bone and charcoal, in which the segmented glass bead GLi (Fig. 86 (b)) was stratified: with the remains of a tilting layer of humus above. An unurned, 'token' cremation which, like ( I ) in this catalogue, was certainly set into place after the field-system had been in existence for some time - probably while the fields were still under plough. First half of the first millennium Ad.
(28) Similar to (27) in all respects save for the absence of any kind of artifact.
(29) A bowl-shaped pit full of black earth and cremated bone, with a sliver of flint debris possibly in situ on its surviving surface. This cremation-pit appears to be associated and contemporary with (30).
(30) A bowl-shaped pit adjacent to (29). Sandy filling, but with flecks of charcoal and three stratified fragments of cremated bone. Clearly this pit existed to house a pottery bowl, the rim of which had been removed by recent ploughing. The evidence suggests that this deposit was a 'ritual' accompaniment to (29). Large sherd from shoulder of shallow carinated bowl. Brown ware with black burnished outer face. Hard fabric with small grit in section. (Fig. 119.)
(31 \& 32) were 'token' cremations, unurned and without artifacts. Like (1), (27) and (28) these were deposited in a field-gully. The same description applies, and the same conclusion must be drawn as to their date.
(33) An urn, redeposited (it appears, deliberately) in the packing-soil of Building A4's partition-wall, evidently represents a disturbed cremation-burial. As found, between the door-pits of A4's inner threshold, the urn was standing on its base; but what appears to be a purposively made hole in the base suggests that originally the vessel may have been inverted (like (19), above). Fragments of cremated bone scattered over a wide area of the wall-trench probably indicate that the original pit lay close to the site of the urn's redeposition. Presumably the burial was unearthed during the digging of the wall-trench, in the seventh century Ad. (See (II) in this catalogue for another instance of accidental discovery during a slightly earlier phase of Yeavering's post-Roman history.)
Description of urn: This undecorated vessel had suffered damage in antiquity and a large section of one side was missing: Fig. 118 (bottom) shows it reconstructed. Diameters: at the rim $10 \frac{1}{4}$ inches, at maximum girth $11 \frac{1}{8}$ inches, at the base $6 \frac{1}{4}$ inches. Height 12 inches. Fabric fairly hard, with many very large grits



Fig. I19. Above Jet disc-beads associated with cremation-burial 11 (pottery shown in Fig. 115). Below Burnished bowl from pit listed as 30 in catalogue, presumably related to cremation-burial 29. Scale $\frac{1}{2}$.
protruding and giving rise to numerous lines of incipient fracture: outer face partially smoothed and leathery: buff to pinkish-brown ware with dark brown inner face and reddish patches.
(34) The conclusion that the Eastern Ring-ditch represents a round-barrow flattened by ploughing is indirectly supported by the frequency with which small fragments of cremated bone occurred in the upper levels of its filling. Many tiny crumbs of pottery, orange-faced over a blue-black core and seldom more than $\frac{1}{4}$ inch in diameter, were also present in the same levels; and although they were quite beyond any hope of reconstruction, their consistency in colour, fabric, distribution and condition suggested that all derived from the disintegration of a single, large, thick-walled vessel formerly existing near the centrepoint of the circle. In those terms it would appear that the hypothetical urn had not been buried below the old ground-surface under the mound, but had been gradually broken up and redistributed with its contents during the long period that saw the round-barrow increasingly subject to the effects of ploughing and erosion. This interpretation requires the vessel to have been at the outset of such size and general character as to find realistic context only in the later urns of the Bronze Age, and all the evidence provokes suspicion that what is involved might well be no more than a secondary burial.

## Section B:

The Scatter of Stones and Cremated Bone 'Sealing' Demolition-Layers of Building E (Fig. 55, Plates 91,92 and 98 ).

All who saw this deposit, during its dissection in the field, were agreed that it must represent the remains of a mound of small stones piled over and around a rough cist, enclosing a (possibly small) heap of cremated bones; and, further, that the whole appeared to have been laid on or very close to the ground-level of its time. That much is beyond reasonable doubt; but ambiguity is introduced by the indisputable fact that the scattered material of this wrecked structure formed a recognizable layer overlying abandoned foundation-trenches of Building E. All the evidence was consistent with the hypothesis, initially adopted for the sake of economy, that the structure had been set into place after the demolition of Building $E$ and had been disturbed only by the effects of recent ploughing that were plainly to be seen.

An alternative hypothesis is equally possible, however: slightly more elaborate but distinctly more likely, is would allow the little cairn to have pre-existed Building E. The eastern and western edges of the cairn, thus, would have been cut away by the digging of the wooden theatre's foundation-trenches (which might account for the presence of numerous scraps of cremated bone in the packing-soil around the wooden walls); but the cist and the core of its overlying mound could well have survived more or less intact-preserving material that would later be spread over a wider area when the site of the demolished theatre came to be levelled and made good. The redistributed material would then have been further scattered, reduced and confused by the deepest furrows of relatively modern ploughing, which were in evidence.

So explained, assuming merely that the effects of an early phase of mutilation were concealed by those of a later, this structure and the cremated bones associated with it could reasonably be added to the catalogue of Yeavering's pre-Northumbrian cremations (Section A of this Appendix) as item 35.

## Section C:

Prehistoric Deposit in Pit close to N.E. Corner of Building Ci
Represented by an unnumbered symbol, this feature has been included in Fig. 73 and has been referred to as a ritual pit'. Two aspects of the evidence, one positive, the other negative, suggest that it would be logically uneconomical to accept the alternative ('domestic' )interpretation save on very strong external grounds. First is the fact that the first and last of the depositions in the pit in question included small quantities of cremated bone that had been pounded, triturated, to the 'normal' condition of the human ashes ritually deposited in the long
series of Yeavering's ancient burials. Secondly, there is no other structural evidence to give context to the notion that the Yeavering whaleback was at the crucial time subject to domestic occupation. Domestically, this feature stands locally in stark isolation: 'ritually' it finds comfortable context when viewed in the whole perspective of the site's use as a cremation-cemetery. Here is a question for posterity to decide: meanwhile there must be cold report of observations.

As Fig. i20 demonstrates, the filling of the pit in question was sharply divided in terms of three distinct depositions. Latest and uppermost was Layer A; brownish-black, containing not only large fragments of pottery and those fragments of cremated bone to which reference has been made, but also many minute particles of charcoal and reddened clay. The intermediate Layer B was complex: $\mathbf{B}(\mathrm{a})$ was composed of pure, sand-and-gravel subsoil; $\mathbf{B}(\mathrm{b})$ was similar but was distinguished by lenses of humus; $\mathbf{B}(\mathrm{c})$ was a matrix of brown humus given a speckled appearance by many tiny inclusions of charcoal. The basal Layer C consisted essentially in a densely black, greasy matrix in which occurrences of cremated bones were made conspicuous by tonal contrast: it centred on a dense concentration of charcoal that yielded many identifiable hazelnut shells, but was itself sub-divided by a lens of yellow sand and a series of large sherds that conformed to the same tipline. Each of the upper and lower sub-zones so defined yielded a featureless, struck flake of flint.


Fig. 120. Section of prehistoric ('ritual'?) pit denoted by symbol in Fig. 73 ; showing association of sherds with the deposits of dark soil, A and C. The pottery is shown in Figs. 121 and 122, and the whole is described in Section B of this appendix.

Since clean-broken potsherds stratified in Layer C were found exactly to fit fragments deposited in Layer A, it follows that these deposits must have been quickly successive. Layer $\mathbf{B}$, alone devoid of cremated bone, appears to have been merely a form of insulation (whether or not the whole is to be interpreted in domestic or in ritual terms).

## Descriptive catalogue of pottery and fints by Isla McInnes

Fig. 12I (I) : Rim-sherd of brown ware, outer face blackened, decorated with horizontal applied cordons marked with stab or, finger-nail impressions. Fabric hard with sparse grit in section. From Layer $A$ of pit.
Fig. 121 (2) : Rim- and wall-sherds of brown ware, decorated with grooved and stamped decoration. A perforation $r .5$ inches below the rim made from the outside after fring. Fabric hard with sparse medium grit in section. From Layer $A$ of pit.


Fig. 121. Pottery and flint flakes from pit illustrated in Fig. 120 and described in Section B of this appendix. See also Fig. 122. Scale $\frac{1}{2}$.

Fig. 121 (3): Wall-sherd of orange ware with raised decoration of horizontal bands. Fabric rather friable with sparse grit in section. From Layer $A$ of pit.

Fig. 121 (4): Base-sherd of brown ware, diameter 6.5 inches, decorated with groove-raised cordons marked with transverse impressions. Fabric rather friable with sparse grit in section. From Layer $A$ of pit.

Fig. I2I (5): Rim-sherd of brown ware, decorated with two groove-raised cordons on inside of rim; on edge of rim one raised pellet; outer face decorated with horizontal grooving and oval impressions. Fabric rather hard with sparse grit in section. From Layer $C$ of pit.
Fig. I2I (6): Large wall-sherd of dark brown ware with red outer face, decorated with horizontal and oblique bands of grooving with oval impressions forming raised design. Fabric rather friable with sparse grit in section. From Layer $C$ of pit.
Fig. I2I (7) and (8): Two fint flakes; no secondary working. Respectively from Layers $B(c)$ and $C$ of pit.
Fig. 122: Large rim- and wall-sherd of dark brown ware with red outer face, diameter 12 inches. Slip-decorated with raised bands on face; rim decorated with applied transverse bands; row of indentations 2 inches below rim. Fabric hard with large grit in section. From Layer $C$ of pit.


Fig. 122. Pottery vessel from the pit illustrated in Fig. 120 and described in Section B of this appendix. See also Fig. 121. Scale $\frac{1}{2}$.


Fig. 123. Prehistoric sherds without evidence of primary association with cremation-burials (see Section D of this appendix).

## Section D:

## Catalogue of Stratified Prehistoric Pottery not primarily associated with Cremation-Burials

'The numbering of the items in this catalogue corresponds with that of the drawings in Fig. 123. Miss McInnes's general commentary on these sherds is given in Section E of this appendix: those descriptions given here in italics are hers.
(I)-(7) incl. were incorporated in the sandy soil which had been used to level and heighten the floor of Building $\mathrm{D}_{3}$ (p. 104). Evidently the soil in which they occurred had been imported from outside the building, and it may be concluded that these sherds were derived from an occupation- or burial-deposit that formerly existed close at hand on the Yeavering whaleback. The small body-sherds which accompanied the rims are featureless and do not merit illustration.
(1), (2) and (3) are of moderately fine fabric in which the grits are very small and well spaced. The core of each sherd is bluish-grey or black: external surfaces are dark brown, locally with a black tinge which is not present internally. Fine, horizontal burnishing is a common characteristic, seen best on the slipped surfaces of (2) and (3). In (4) horizontal working and smoothing of both surfaces are again in evidence, but the gloss of the other pieces is lacking and the ware has a slightly coarser fracture.
(5), (6) and (7) are distinguished not only by the flaring curves and elaborately rolled edges of their rims, but also by the extraordinarily high degree of gloss produced by horizontal burnishing inside and out. The thin, polished slip locally shows delicate crazing produced in firing, and has a tendency to flake. The ware throughout is essentially similar to that of $(\mathrm{r}-4)$, but (7) is finer than the rest. (5) and (6) are dark brown throughout, and appear to be black when wet; whereas the dark core has all but completely disappeared from. (7) in more complete oxidization of the fabric. The light, pinkish-brown core of (7), muted to a darker orangebrown by burnishing of the surfaces, is paralleled in a high proportion of the recovered body-sherds.
(8) Rim-sherd of black ware, diameter approximately 7 inches; decorated with twisted cord impressions on inner edge of rim. Top of rim decorated with twisted cord and finger-nail impressions. Hard fabric with large grit in section. This sherd was found on the upper surface of the deposits filling the central pit of the Western Ring-ditch complex. It came to light under the brush while the loose debris left behind by the bulldozer was being cleared away (at the very moment, that is to say, when the central pit itself was first recognized); and the stratigraphical uncertainties are too great to allow more than mere recognition of its association with the pit. (See also (ro), below.)
(9) Rim-sherd of black ware; undecorated; hard, close-textured fabric with some medium grit in section. Of prehistoric aspect, but unidentifiable, this piece was stratified in the soil with which one of the N.E. stone-holes of the Western Ring-ditch had been refilled. The presence of three minute fragments of cremated bone in the same deposit suggests that this sherd might possibly have been derived from a cremation-burial disturbed during the removal of the stone circle.
(Io) Rim-sherd of brown ware with red inner face, diameter 8.25 inches; decorated on top of rim with twisted cord impressions. Very hard fabric, heavy, with much large grit in ssction. Securely stratified in the clean, original filling of the segmented ditch from which the Western Ring-ditch takes its name, this Peterborough rim gives greater interest to (8) above, and must be considered in conjunction also with (13), (I4) and (I5) below.
(II) Wall-sherd of grey ware with brown inner face and orange outer face; applied decoration. Close-textured, rather soft fabric; no evidence of grit in section. This piece, found within the Western Ring-ditch, close to the southern edge of Cremation 5 (see Section A of this appendix), underlay an irregular deposit of remarkably compacted black soil speckled with particles of cremated bone. Initially it was supposed that the whole was a sample of some single deposit that had been otherwise removed by the bulldozer; but later pondering of the evidence discounted that tentative conclusion. The sherd had clearly been driven into the ground by the bulldozer, and the cake of bone-speckled soil had lifted too readily from it. Accordingly what was at first accounted as a cremationburial is now dismissed as a fortuitous redeposition of material that may very well have been derived from two
or more separate features. None the less, the mere presence of this Rinyo-Clactonian sherd within the Western Ring-ditch seems to be worthy of record.
( I2) Small wall-sherd of dark Beaker-ware with pink outer face; fine grooved decoration. Rather worn. Evidently intrusive, this sherd was stratified at the basal level of Cremation 4 (Section A of this appendix).
(13) Small wall-sherd of orange Beaker-ware; decorated with faint horizontal impressions, possibly cord, but very worn. Stratified in the primary silting of a western segment of the Western Ring-ditch.
(14) Wall-sherd of orange Beaker-ware; decorated with horizontal rows of twisted cord impressions. Rather worn. This broken sherd was securely stratified under the surviving base of Cremation 7's otherwise disintegrated urn (Section A of this appendix).
(15) Small wall-sherd of orange Beaker; decorated with horizontal rows of twisted cord impressions. Very worn. Stratified in the original, clean infilling of a N.W. segment of the Western Ring-ditch, 2 inches above the primary silt.

In view of the more specialized commentary that follows in Section E, the excavator of the material catalogued here need make only one observation. Although most, and perhaps all, of the relevant sherds may be in some sense 'derived' it seems nevertheless meaningful that Yeavering's small harvest of Peterborough and Beaker pottery was yielded totally and exclusively by the ground within and around the Western Ring-ditch. Leaving aside both the Rinyo-Clactonian pit that is the subject of Section C , and the single Rinyo-Clactonian sherd (of dubious status) which is figured as (in) here, it appears all the more likely that the Western Ring-ditch has first claim to be regarded as Yeavering's most significantly ancient monument.

## Section E: <br> Survey of the Pottery <br> by Isla McInnes

The large sherd from the shouldered bowl in pit 30 (Fig. ing, lower) represents a northern outlier of Grimston Ware. Although rather thicker in section than is usual, the bowl with its undeveloped carination and deep burnishing marks is typical of the Yorkshire series (Newbigin 1937, 203-15; Piggott 1954, 97). It is possible that the proximity of the cremation-pit 29 is fortuitous but this seems unlikely. The association of Grimston ware with a cremation ritual is a common practice in Yorkshire (Manby 1963, 192-8). One should rather see this as the deposition of a cremation with the ritual attendant pottery in an adjacent pit.

The sherds shown in Fig. 121 belong to a class of Rinyo-Clacton pottery characterized by strip decoration which is in turn further decorated. This style is well seen at Wykeham, Yorks. (Moore and Manby 1962, 620), and Knappers Farm, Glasgow (Mackay 1950, 180). On decoration alone this style of pottery would be included in Smith's Woodlands style of the Rinyo-Clacton ceramic (Smith 1956, 196), but the Woodlands style is characterized by small vessels and, with the exception of the Wykeham vessel, the northern examples are fairly large. The large vessel, Fig. 122, with heavy applied decoration and grooving, is more akin to the pottery from Rinyo and Skara Brae, Orkney, than to that from Clacton, Essex, but similarly decorated vessels are found also at Risby Warren, Lincs. (Riley 1957, Fig. 9 (4)) and Sutton Courtenay, Berks. (Warren et al. 1936, Fig. 7 (I)). The sherd illustrated as Fig. I23 (II) also belongs to this series. The simple horizontal raised bands, Fig. 121 (3), are typical of wares found on most Rinyo-Clacton sites, e.g. Skara Brae, Orkney (Childe 193I, Pl. xlviii) and Woodhenge, Wilts. (Cunnington 1929, Fig. 24.)

Rinyo-Clacton pottery occurs more commonly in pits than on any other type of site. The majority of these pits represent storage or rubbish deposits and there is no comparable evidence of the deliberate three-stage filling of the Yeavering pit. However, at a number of sites in the south a group of pits containing Rinyo-Clacton
pottery occur together and appear to be contemporary, e.g. Clacton, Essex, Cassington, Oxon. (Warren et al. 1936, 194) and Woodlands, Wilts. (Stone and Young 1948). The two main deposits in the Yeavering pit consist of similar types of pottery and are linked by sherds that fit together, and so any lapse of time between the two is unlikely to have been long.

The two sherds Fig. 123 (8) and (10) belong to the Peterborough class of pottery. Both show the flat rim and undeveloped neck of the northern style of this pottery, as seen for example at Hedderwick, East Lothian (Callander 1928, Fig. 46).

The sherd of grooved beaker, Fig. 123 (12), is rather coarse in fabric and this, together with the roughly grooved decoration, suggests that it represents a rather degenerate and probably late Beaker type. The corded beakers represented by sherds (13), (14) and (15) in the same figure, are a type of beaker which appears to be amongst the earliest beaker forms in Britain (Piggott 1963, 66), but the type does seem to have had a fairly long life and the corded sherds need be no earlier than the grooved sherd. Although some of these sherds were found with cremations it seems unlikely that the cremations were contemporary. Cremations are rarely associated with beakers (Ashbee 1960, 81). They probably represent a deposit on the site disturbed by the later cremation-cemetery. Such sporadic use of land has been well demonstrated by such finds as that from the prebarrow surface at Overton, Wilts. (Smith and Simpson 1966, 151). This would be borne out by the worn condition of sherds (13) and ( 15 ) in Fig. 123. A similar explanation would account for the discovery of a sherd of Grimston ware, Fig. 115 ( 18 b ), with Cremation 18 and sherds of undecorated Peterborough-type fabric with Cremation 2.

The decoration on the sherd from Cremation 26 (Fig. I18) has been produced by inserting the finger-nail and dragging along the soft clay to produce an upcast which has then been pinched and flattened. This method of decoration has been found in East Anglia on beaker coarse wares, along with other techniques of rustication (Mackay 1961, 103). Rusticated beaker coarse wares have a predominantly southern and eastern distribution where they are found with the local forms of fine beaker (Mackay, loc. cit., Io3). At Risby Warren, Lincs., rusticated beaker coarse ware is found on the same site, not only as southern fine beakers, but also as corded beakers, as at Yeavering (Riley, loc. cit., Figs 6 and 7 ).

The strange little vessel associated with Cremation 25 (Fig. 188) is definitely beaker-like in thinness, colour and fabric. The shape and decoration however are not closely paralleled in beaker pottery. Some comparison is to be found with the beaker from Stanton Harcourt, Oxon., which accompanied an inhumation and was associated with a bone pendant and six barbed and tanged arrowheads (Grimes 1960, 161). Although the appearance of the Stanton Harcourt beaker is somewhat similar to the vessel from Yeavering, the decoration on the Oxfordshire example has been carried out in finger-nail impression. Comparison also may be made with a small vessel from Towthorpe Barrow I, Yorks., which was associated with a Food Vessel and a cremation (Mortimer 1905, 1). This type of stabbed decoration is not uncommon on Food Vessels (Mortimer op. cit., Figs. 3 Io, $33^{8,} 615$, etc.) and the association of the Yeavering piece with a cremation would, if viewed in this light, be quite acceptable.

The sherd shown as Fig. II5 (6) is almost certainly from a Food Vessel. False relief decoration is known on one or two beakers but is most commonly found on Food Vessels (Apsimon 1958). The technique of producing the false relief on this Yeavering sherd is identical with that on the Food Vessel from North Gyle, Midlothian (Callander 1929, 369, Fig. 2).

The Encrusted Urn of Cremation II (Fig. I I5) is typical of its class. The chevron is the dominant decorative feature of this type of pottery (Fox 1927). The distribution of these urns is mainly northern and western and Yeavering fits well into this scheme. Of great interest is the association with this urn of the disc-bead necklace of jet. Such necklaces are commonly found in Food Vessel contexts in Scotland and Yorkshire (Abercromby 1912, Vol. I, 36; Greenwell 1877, 198). Their association here with an Encrusted Urn suggests that the dating of this urn should not be too late. Disc-beads of Yeavering type occur in necklaces with plate beads decorated in Wessex manner, as at Calais Wold I3, Yorks. (Mortimer, op. cit., Fig. 418a).

The second urn, associated with Cremation 2I (Fig. I15), would appear to be a rather late and degenerate form of Collared Urn. Although too worn to be certain it would appear that the decoration on the shoulder has been carried out in twisted cord, but the random grooving on the lower part of the vessel is a feature not found in Longworth's primary series (Longworth 1961, 271).

## Yeavering

The complete urn from Cremation 19 (Fig. 117) also belongs to the Collared Urn series and similarly the decoration suggests that it too is an example of the later development of the series. Stab decoration is fairly common on Collared Urns (Abercromby, op. cit., Vol. II, 13, $x 65,170,185$, etc.) with a distribution that is mainly northern, although with outliers in other parts of the country. One such example is the urn from Sheeplays 293, Glam., associated with an awl with square sectional tang (Fox 1959, 128). Such awls occur in Wessex contexts in Britain, e.g. the Manton Barrow, Wilts. (Annable and Simpson 1964, 101). A similar dating is suggested by comparison with the urn from Gilchorn, Arbroath, Angus (Hutcheson 1891), which was associated with two accessory cups and a glass bead of Egyptian type belonging to the 18th Dynasty.

The prehistoric use of the Yeavering site would appear to have begun shortly before 2000 BC with the outlying pits, the ritual deposit of the Grimston bowl beside the cremation, followed by the Rinyo-Clacton pit. Sporadic occupation continued, reflected by the Peterborough and Beaker sherds. To the Beaker use of the site belongs the erection of the monolith with surrounding stones. Somewhere towards the middle of the second millennium the site began to be used as a cremation-cemetery. The building of the round-barrow may be presumed to belong to this phase, as also must the cist with its enurned cremation and associated beads. Thereafter the area continued in use as a burial-place with cremations clustering round the focal-point. How long this activity continued it is not possible to say but the number of cremations alone suggests that the site may well have continued in use into the first millennium bc.

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# NOTES AND REFERENCES 

## Key to main abbreviations used in the footnotes

| Ant. 7.: | The Antiquaries Journal. |
| :--- | :--- |
| Arch. Ael.: | Archaeologia Aeliana. |
| Cambr. A.S.: | Cambridge Antiquarian Society. |
| JRAI: | Journal of the Royal Archaeological Institute. |
| JRS: | Journal of Roman Studies. |
| LHEB: | Language and History in Early Britain (K. H. Jackson). |
| Med. Arch.: | Medieval Archaeology. |
| PRIA: | Proceedings of the Royal Irish Academy. |
| PSAS: | Proceedings of the Society of Antiquaries of Scotland. |
| RCAM: | Royal Commission on Ancient and Historical Monuments, Inventories. |
| YAF: | Yorkshire Archaeological Journal. |

Bede, Historia Ecclesiastica, II, xiv, F. 39b (ed. Plummer, Oxford, 1896, $114-15)$. All further references to this work will be prefixed by the abbreviation Bede, $H E$. Plummer's edition of the text has been used throughout.
2 v. Chapter I, Section B (VII) below.
3 Wm Camden, Britannia, edn 1637, 815 (d)
4 A. H. A. Hogg, Antiquity, XXIII, 1949, 21 I-14.
5 G. Jobey, Arch. Ael., 4th s., XXXVIII, 1960, 1-38.
6 D. Knowles and J. K. S. St Joseph, Monastic Sites from the Air, Cambridge Air Surveys, I, 1952, 270-I.
7 v. P. Hunter Blair, Introduction to Anglo-Saxon England, Cambridge, 1956, 42, Map 4; J. N. L. Myres, Roman Britain and the English Settlements, 2nd edn, Oxford, 1937, 420.
8 The evidence of the Geography of Ptolemy, of the Antonine Itinerary and the Ravenna Cosmography, relative to Britain north of Cheviot, is conveniently summarized by I. A. Richmond in Roman and Native in North Britain, Nelson, 1958, 13 I-55.
9 A. H. A. Hogg, 'Native Settlements of Northumberland', Antiquity, XVII, 1943, 136-47, and in PSAS, $4^{\text {th }}$ s., XI, I40-79. Although Mr Hogg's pioneer treatment of this distribution has been for most purposes superseded by Mr G. Jobey's more analytical studies (Arch. Ael., XXXVIII, ig6o; XXXIX, 196I; XLI, 1963; XLII, 1964; and XLIII, 1965), the original map remains a sufficiently effective demonstration of the general situation to illustrate the present point.

1o History of the Berwickshire Naturalists' Club, IV, 1857-62 434-41.
II This evidence will be published in greater detail in the definitive report in Arch. Ael. The present account contains all the data that are relevant.
12 RCAM: Roxburgh, Figs 20 and 19.
13 Much of this material remains unpublished or is recorded only in scattered notes and references. A connected survey of the whole is an outstanding regional need. Imperfect acquaintance with the material has led Professor A. E. Smailes (North England, Nelson 1960,76 ), in referring to 'the heavily forested, swampy floor of Glendale', in a prehistoric context, to imply that settlement below the $400^{\prime}$ contour was almost prohibited by these conditions until very recent times; whereas the facts would allow a generalized statement to this effect to apply only to land below the 150' contour.
14 Coincident with part of the natural route from Alnmouth to Melrose pointed out by Crawford (Map of Britain in the Dark Ages, North Sheet, Ordnance Survey (1938); map on p. 33 of introductory text).

15 Bede, $H E$, II, xiv, f. 39b.
I6 The main references are summarized by M. Beresford in The Lost Villages of England, Lutterworth Press, 1954, 375.

17 A. H. A. Hogg, op. cit., n.4, 214.

18 The form Yevering is closer to the original (and to the local pronunciation) than is Yeavering; but the latter is used here throughout because it is as Yeavering that the place appears in all modern maps and in the majority of recent references. Yevering is the form used in Dacre's map of 1584, and Yeavering seems not to occur until the second half of the seventeenth century. Speed's map of 1608 gives Yeverin. All three forms continued in use well into the nineteenth century, and apparently it was the adoption of Teavering by the Ordnance Survey that brought about the gradual abandonment of the more ancient spellings.
C. Plummer, ed., Venerabilis Baedae Historiam Ecclesiasticam, Oxford, 1896, 115 and notes.
21 E. Ekwall, Concise Oxford Dictionary of English PlaceNames, 4th edn, Oxford, 1960, 544 .
22 K. H. Jackson, LHEB, 326; W. J. Watson, History of the Celtic Place-Names of Scotland, Blackwood, 1926, 496.
E. Ekwall, op. cit., n.21, 198, 473.

24 A. H. Smith, English Place-Name Elements, English Place-Name Society, XXV, 1956, Pt I, 27.
25 True, the subtler traces of 'pure' palisade-enclosures and the sites of round huts and houses of timber long escaped detection in the uplands. Systematic study of such monuments is among the most important developments in British field archaeology during the past two decades; but while its results are highly significant (as may be seen in RCAM: Roxburgh, Introduction, 19-21) they do not invalidate the present general point. Indeed they make it all the more clear that such vulnerable remains are likely to be hidden or destroyed where they are sited on lower, more fertile ground.
26 v. n. 13.
27 C. Fox, Personality of Britain, 4th edn, Cardiff, 1952, Fig. 2 and Pl. IV.
28 Ibid., Map C.
29 S. Piggott, in Roman and Native in North Britain, ed. Richmond, Nelson, 1958, 1-27.
30 RCAM: Roxburgh, II, Nos. 672 and 943 respectively. Beehive querns with flat grinding faces are associated with both sites, and the more westerly of the two homesteads at Crock Cleuch yielded a fragment of Roman glass (the eastern homestead also produced material which could conceivably be of slightly earlier date). Evidently occupation of both sites extended well into the Romano-British period, and it is at least likely that the associated fields were in use during that time. Other fragmentary remains of apparently similar field-systems occur at Blakebillend (ibid., I, No. I66), possibly in association with a settlement dated by a beehive quern; and at Pudding Law (ibid., II, No. 673), near an undated homestead.
$3^{1}$ F. G. Payne, 'The Plough in Ancient Britain', Arch. 7., CIV, 1947, $82-11$.
$32 v . n .28$.
33 The only economic evidence from Yeavering indicates that cattle-breeding was of considerable importance there during the early phases of the township's existence (Appendix I). On the other hand, the institution of a highly sophisticated water-mill is a feature of the remodelling of the important settlement at Old

Windsor, Berks., about AD 800 (when possibly the site, known later to have carried one of the Confessor's palaces, first became part of a royal estate).
34 K. H. Jackson, Language and History in Early Britain, Edinburgh, 1953, 220, map of British river-names.
35 K. H. Jackson, in Angles and Britons, Cardiff, 1963, 60-84 (esp. 74-7).
36 I. Taylor, Words and Places, with map coloured in 2nd edn, Macmillan, 1873.
37 R. H. Hodgkin, A History of the Anglo-Saxons, 2nd edn, Oxford, 1939, I, 168.
38 P. Hunter Blair, in Studies in Early British History, Cambridge, 1959.
39 E. T. Leeds, The Archaeology of the Anglo-Saxon Settlements, Oxford, 1913, 71.
$4^{\circ}$ E. T. Leeds, Early Anglo-Saxon Art and Archaeology, Oxford, 1936, 93.
41 Listed by P. Hunter Blair, loc. cit., n. 38 .
$4^{2}$ G. S. Keeney, Arch. Ael., $4^{\text {th }}$ s., XVI, $120-8$.
43 For example, the excavated structures of Building D2 were refilled overnight with blown sand to an average depth of 20 inches, immediately the dissection of their fillings was complete. $D_{3}$ was similarly overwhelmed at a late stage in its excavation, and it was calculated that the quantity of blown sand involved was probably in excess of 40 tons (of which to tons had to be removed in order to allow the investigation to be completed).
44 Overall spraying would become an effective technique were the archaeologist enabled to work in a controlled environment. At present he is at the mercy of climatic accidents, so that excavation is subject to costly and unnecessary difficulties and delays. The time has come for such relatively small capital investment as will provide important research excavations with movable transparent shelters. Such structures, based on the writer's design, have been used to good effect in Denmark. Given such insulated conditions, the excavator can control the humidity of the area under investigation and will be able to exploit the possibilities of techniques involving the use of compressed air.
45 In the 1953 season there was sometimes one workman, sometimes none; in that of 1954 there was a nominal force of four; and in the 1955 and 1956 seasons maxima of five and six respectively. Any extensive use of volunteer labour was out of the question, since volunteers are normally available only in the summer months and even then-individually-seldom for periods longer than a month. On a site that existed in such subtle terms, no person could gain sufficient local experience and training to become effectively useful in under two to three weeks. This was the opinion of the three volunteers who strove to master Yeavering's difficult idiom during short periods in 1956. To them (Miss Alison Souper, Mr John Connolly and Mr H. M. Colvin) warmest thanks are due for much heartening effort and kindness.
46 The writer and his assistant were of course present on the site constantly; but in addition to the work of supervision, they had to carry out all the surveying, to draw many plans and sections in the field, to maintain a continuous photographic record, to catalogue and plot the occurrences of small-finds and, besides, to do most of the critical work of dissection themselves.

Hence, the training and discipline of the workmen had to be viewed as an essential part of the technical strategy.
47 On the same aerodynamic principle as is turned to useful account by the erection of screens or other windbreaks at a little distance from roads subject to drifting snow.
$4^{8}$ The air-photographs were found reliably to indicate the grossest of the site's archaeological features. Various areas in which the photographs show no anomalies were carefully sampled, and it is extremely unlikely that any further trench-built structures remain undiscovered within the boundaries of this field. Minor structures based on separate post-holes could conceivably exist towards the western and northern margins of the site, and the writer hopes to examine the most likely areas at some time in the future; but otherwise it may be assumed with some confidence that the archaeological content of that part of the site which lies to the north of the Wooler-Kirknewton road is fully known.
49 The writer is not, as he once thought, the first to put this useful concept of the 'horizontal section' into English. It made its debut in British archaeology in 1933, when O. G. S. Crawford published a note called 'New Technique' in Antiquity, VII, 1933, 468-71. Crawford's note skimmed the surface to reveal a somewhat sketchy outline of the subject, and it would seem to be no more than a historical curiosity to the modern eye were it not that so few excavators even today exploit horizontal exposures as fully as vertical ones. The history of many 'single level' and thinly stratified sites can be read wholly or in large part from their primary horizontal sections, without the slightest disturbance of their archaeologically significant soil-layers; yet to speak of trial excavations is still to conjure up a picture of damaging holes and trenches dug into the unknown. British soils seldom allow of those shaving-down techniques with the spade so characteristic of the northEuropean plain, but they are equally eloquent under the blandishments of trowel and brush.
50 Any study of ancient constructional techniques is greatly helped by understanding of the metrological terms in which the structures were conceived and set out. That question, too often in the past a field reserved for a diversity of cranks, is hardly to be approached unless the data are collected with the most scrupulous precision. The accuracy required is indeed greater than can be expressed within the limits of archaeological drawings at the conventional scales.
51 The use of a stable material, such as 'Permatrace' and others, as the basis for master-plans, is most strongly to be recommended.
52 That the need for a high vantage-point in excavational research has been increasingly recognized in recent years is due in large part to the effects of R. J. C. Atkinson's Field Archaeology (Methuen, ist edn, 1946) on more than one post-war generation of archaeological excavators. This particular tower at Yeavering is brought to record only because it so successfully withstood the extreme conditions for which it was designed. It was essentially a small turret supported by a large, stable pyramid. Even in Glendale's abnormally high winds, its vibration remained constantly at the minimum required for the making of consistent photographic records; otherwise, in the poor light and gales
of the northern autumn and winter, it would have been impossible to venture the relatively long exposures then required without the gravest risk of blurred images.
53 It was usually necessary to use three grades of handbrush successively: first, a stiff churn-brush to move the heaviest wind-blown deposits (and effective in revealing the texture of the subsoil's gravel capping, in itself an effective source of photographic contrast); secondly, a brush of medium grade, to catch the bulk of the remaining loose material; and finally a large, extremely soft brush made of the very finest hair available, with which alone the significant surface could be freed from the last, powdery film that masked it.
54 The problem inherent in the roofing of the largest buildings on this site (e.g., Building A4, Figs 6 r and 65) would have been excessively difficult to overcome without some form of lifting-tackle, and the consistent choice of a wide span, relative to the lengths of these structures, suggests that an efficient means of handling extremely large timbers was available and familiar to their builders.
55 This represents a common phenomenon, observed on various other sites, which appears to be due to the relatively high concentration of earthworm activity within some structures of small vertical extent. In such conditions more complete admixture of the contained soil is to be expected. The effects of earthworm activity normally decrease, in any case, in inverse ratio to the depth from the surface. In the present instance, a 'splitpea' layer, quite unlike normal silting, was found to exist on or near the basal level at those points where structural indications were absent or extremely diffuse (v. R. J. C. Atkinson, Antiquity, XXXI, 1957, 225 (c).

56 Analysis of this material revealed that its outer surface was composed of lime with a variable proportion of sharp sand (closely matching the sand exposed in the lower parts of the ancient foundation-trenches). Traces of organic fibres were present in one part of the sample, and it would appear that fine grass was added to the mixture in order to produce a tougher, more stable rendering (much as hair was used until recent times). The yellow undercoating contained a far higher proportion of sand, mixed with puddled clay in which some lime was present.
57 Making due allowance for the effects of fire and greater exposure, these samples agreed closely with the plaster fragments associated with Building A2 (o. n. 56).
$5^{8}$ v. nn. 56 and 57.
59 To maintain that this burial was made in the years immediately following the destruction of $A_{4}$ it would be necessary to assume that, for this purpose, a wide area had been deliberately cleared of the last particle of the burnt materials which were so strikingly in evidence in all the below-ground features of demolition and reconstruction. An area considerably greater than that of the grave itself would be involved; the ground temporarily to be covered by the spoil-dump of sand would also have to be cleaned if - for some curious reason - the grave had to be kept free of all trace of the fire. One gust of wind would have frustrated such a purpose, and so unlikely a hypothesis would not be considered here were it not that the relationship between Grave AX and Building $A_{4}$ is a matter of unusual interest.

6o To distinguish it from another, called the Western Cemetery, which is associated with Building $\mathrm{D}_{2}$ (Area D).
6i The time and funds available did not allow of the exploration of the cemetery's southern and eastern limits; but the writer hopes further to investigate this and some neighbouring features of the site at a future date.
62 Information given by Mr J. Purvis of Yeavering Farm in 1955, and later confirmed by Mr W. Riddell, his shepherd.
63 Here unusually well preserved, owing to a local difference in the character of the subsoil.
64 The same procedure was in evidence in the trenches of Building $\mathrm{C}_{4}$, as described in the appropriate section below.
65 It appeared that the top of each of the buttress-posts in question had first been pulled away from the wall (in the manner described in Chapter 2, (C) p. 42), thus disturbing and loosening the packing-soil of the buttress-pit; and that then the post had been hoisted up from 6 to 12 inches at a time, slipping back slightly between each pull and the next and so stamping its impress, level by level, on the packing-soil collapsing inwards beneath it.
66 That such control was exercised is demonstrated by the fact that the almost inevitable irregularities in the digging of the trenches were not followed by the walls that were emplaced in them. It follows, hence, that the stretched cord was continuously in use during the building of the walls; which would have been impossible had construction not proceeded from the back of the structure to the front. The probability of one wall having been erected before the trench for the next was laid out rests on the justifiable assumption that the builders were experienced in organization. Certainly, had they allowed more than two trenches to be open at the same time they would have made a rod for their own backs; for the normal problems encountered in handling large timbers would thereby have been exaggerated. The undug spaces between the trenches would have been insufficient to accommodate the spoil-heaps (so that the excess of soil would have had to be removed to one or both ends of each trench, and thereafter returned for the already complicated process of back-filling); and it would in any case have been hazardous - if not impracticable - to leave incomplete structures of this kind standing devoid of packing-soil.
67 Although the fact is accessible, by measurement, in Fig. 17, it should perhaps be remarked that the enclosure attached to $\mathrm{A}_{2}$ (bounded by Palisade 3) was 100 units long, from its point of junction with the building; and, in its western half, very closely approached a width of 60 units.
68 From consideration of the apparently distinctive technique used in the removal of the two pairs of buttress-posts that respectively flanked the north and south doorways of A2, it was earlier suggested that those four posts might have played a more complex part in the structure than their fellows (Chapter 2, C (ii), p. $4^{2}$ ). If they were indeed more inextricably locked into place above-ground than the rest, as appears possibly to have been the case, this must have some bearing on the constructional procedures involved in exploitation of the double-square plan. As
will be shown, the walls of $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ were built from the long-wail doors outwards to the corners: accordingly there was greatest need for securely anchored supports beside the doorways, particularly as the unification of the primary and secondary halves of the building depended on strong links between them at and above the level of the lintels.
69 The evidence associated with the process of demolition shows clearly that some form of lifting-tackle was used in extracting timbers from their sockets ( $v$. p. 40 and n.54). It is logical to suppose that such apparatus was used in the course of building, too, in which case the constructional process would presumably be so arranged as to give it free play at the critical stages.
70 The term 'Yeavering foot' might be preferable, since it is expressive of the order of length involved; but it could be thought to involve assumptions that are better avoided at the present stage. In face of Building $\mathbf{E}$, its occurrence on this site is bound to provoke comparison with the Roman foot. That (although varying at different places and times) is conventionally given the value of II 664 statute inches or 29.57 cm . While it is possible that the Yeavering unit derives from a local standard of measurement used during the Roman Iron Age, it would be unsafe to assume that it must necessarily reflect the Roman foot. The foot of 29.33 cm shown to have been used in the setting-out of the Viking fortress at Trelleborg (P. Norlund, Trelleborg, Copenhagen, 1948, 268-70 and Pl. LVI) has a rather less insecure claim to Roman ancestry: like the Yeavering unit, it appears to have been used most commonly in multiples of four.

The wide European distribution of local feet within the range 10.95 to $11 \cdot 15$ inches listed by H. Doursther (Dict. des Poids et Mesures, Brussels, 1846 - still of some interest) serves to discourage speculation. Critical metrological analysis of metalwork, manuscripts and structures may well, however, throw light on ancient techniques and traditions, and might be useful in certain studies of trade (the numismatist has already advanced knowledge by literally weighing his evidence). It is most desirable that the excavators of ancient buildings should publish precise metrological data taken directly from the actual remains.
$7^{1}$ W. Rose, The Village Carpenter, Cambridge, 1937, 15-16.
72 The word style is used here in the sense of such a combination of techniques and characteristics as appears to represent a distinctive 'architectural' concept, responding both to functional and technical problems.
73 I. A. Richmond, in Arch. Ael., $4^{\text {th }}$ s., XX, 1942, 121-33.
74 A. H. A. Hogg, in Aspects of Archaeology, ed. Grimes, 1951, 214-20.
75 R. E. M. Wheeler, 'The Stanwick Fortifications', Soc. Ants. London Research Report, XVII, 1954, 38-44.
76 The archaic elements in the native culture and economy (of which this pottery is representative) are discussed by S. Piggott in Roman and Native in North Britain, ed. Richmond, Nelson, 1958, 1-27.
77 A point notably developed by Richmond (op.cit., n. 73 ).
78 G. Tate, in Hist. Berwickshire Naturalists Club, 1852-56, 294-316.
79 G. Jobey, in Arch. Ael., 4th s., XXXVII, 1959, 265, Fig. 13, 1.
80 Ibid., XXXV, 1957, 173.

8i G. M. Piggott, in PSAS, 7th s., LXXXII, 1947-48, 213 , Fig. 10, IVA. 2.
82 Hogg, op. cit., n.74, 218, Fig. 57, cf. table in his Appendix II: but see also 214, where Hogg observes that this ware becomes relatively less common at Traprain after the end of the second century.
83 Richmond, op. cit., n.73, 129.
84 A. H. A. Hogg, op. cit., n. $74,214^{-1} 5$.
85 M. R. Hull, in Yorks. Arch. Fournal, XXV, 1930-1, 163.
86 R. E. M. Wheeler, 'The Stanwick Fortifications', Soc. Ants. London Research Report, XVII, 1954, Fig. 12 (1) and (2).
87 C. M. Piggott, in PSAS, 7th s., LXXXII, 1947~48, Fig. 10 (IVA. 2) and (IVB. I).
88 G. Jobey, in Arch. Ael., 4th s., XXXVII, Fig. 13 (2).
89 Hull Museum Publications, 66 and 67 1909; Victoria County History Yorks., II, 74-6; Archaeologia, XLV, 1880, 409. Apart from a few urns (from the nineteenthcentury excavations) in the Ashmolean Museum, Oxford, the material is housed in the Hull City Museum. The writer is greatly indebted to the Curator, Mr John Bartlett, and his staff for their kindness and patience in making all the material available to him.
90 The site is not to be judged from the early publications cited in n. 89 , nor indeed are the 'old finds' by any means fully representative. At the time of writing, plans are being made for publication of the new material provided by excavation of large areas of the site.
${ }^{91}$ J. N. L. Myres, 'The Anglo-Saxon Pottery from Elkington', in 7 RAI, CVIII, 1951, 6r.
92 Among those illustrated by G. Webster in 7 RAI, CVIII, $1951,25-64$, the following most nearly approach the form in question: Fig. 2 (68b); Fig. 5 (87); Fig. 7 (70); Fig. 8 (7); Fig. 10 (168); and Fig. 12 (48).
93 J. N. L. Myres, 'The Anglo-Saxon Pottery of Lincolnshire', in 7 RAI, CVIII, 1951, 90.
94 Illustrated by Myres, op. cit., n.93, as Fig. Io (4).
95 T. C. Lethbridge, A Cemetery at Lackford, Suffolk, Cambr. A. S. 4 to Publ., n.s. VI 195I, where the form is most closely paralleled by Fig. 13 ( 50,83 (HG, 8)) and Fig. 24 ( $50,95 \mathrm{~A}$ (BENI, 8) and 50, 172A (F.32)). A more globular form (ibid., Fig. 18, 48, 2481 (UDY, $58 \mathrm{~A})$ ) is associated with the Illington/Lackford potter, whose work is dated to the sixth century.
96 No. 48. 2497A (WDY, 6).
97 A. Genrich, Formenkreis und Stammesgruppen in SchleswigHolstein, Offa-Bücher N.F. 10, 1954, Tafel 46, I.
98 Ibid., Tafel 40, 3.
99 J. N. L. Myres, in Ant. 7., XVII, 1937, 424-37; Med. Arch., III, 1959, 1 I.
100 F. Tischler, in 35 Bericht der Römisch-Germanischen Kommission (1954), esp. 62. Myres's 'corrugated ware' is now acknowledged as representing a ceramic type that appears as a mature form in Denmark by about 350, and there need now be no hesitation in accepting that the English cemeteries in which it occurs are of very early origin. The (unpublished) material from Caistor-by-Norwich affords the best demonstration of the matter; but it is clear from the pottery found at Ancaster, Lincoln, York and Sancton that Germanic
settlements were widely spread in eastern England by the opening years of the fifth century, and that immigrants from the Cimbric peninsula played no small part in the initial phase.
ror Indeed, even were the associations of the Yeavering piece suitably early, it would be unsafe to judge the matter by reference solely to the shape of this isolated example. Bowls of not dissimilar form occur in and before the fourth century in the areas adjacent to the territory that can now be recognized as the homeland of the Angles (e.g., Tischler, op. cit., n. Ioo, Taf, I, 4 and 8, and Abb. 17, II). The predominantly 'Anglian' affinities of the earliest material north of the Wash and the Humber are clear, nevertheless, from the groups of decorated pottery to which reference has been made in n.ioo.
102 The rim-form is approached by the early piece illustrated by A. H. A. Hogg in Aspects of Archaeology, Grimes, 1951, Fig. 55 (2), but the later rim shown in his Fig. 56 (21) is closer to Pio in ware.
103 G. C. Dunning, in Archaeologia, LXXXIX, 1943, 75-9, Fig. 25 ( $2,4,5$ and 7).
104 B. K. Hope-Taylor, in Med. Arch., II, 1958, 183-5. The definitive publication of the enormous bulk of material from this site is now being prepared, and will include a survey of Anglo-Saxon grass-tempered wares.
105 E. T. Leeds, in Archaeologia, LXXIII, 1923, 147, and LXXVI, 1927, 59-79. Most of the pottery is in the reserve collection of the Ashmolean Museum, Oxford. The writer hopes to reassess its significance in the light of the stratified material from Old Windsor ( $v$. n. Io4).
106 Well represented by examples from Sutton Courtenay, Berks. (E. T. Leeds, in Archaeologia, LXXIII, 1923, Pl. XXVI, 3, and LXXVI, 1927 , Pl. VI, 2); and from Bourton-on-the-Water, Glos. (G. C. Dunning, in Ant. Э., XII, 1932, Pl. LV, 2).
107 As found at St Neots, Hunts. (C. F. Tebbutt, in Proc. Cambridge A.S., XXXIII, 1933, 149), and at Medmerry, Sussex (G. M. White, in Ant. 7., XIV, 1934, 398-9, Pl. LII, 2).
108 J. G. Hurst, in Med. Arch., III, 1959, 23-5.
109 R. E. M. Wheeler, London and the Saxons, London Museum Catalogues, No. 6, 1935, 154-5.
1 1 о E.g., K. H. Brandt, in Germania, 36, 1958, Abb. 3 (16 and 20). The best-stratified early examples known to the writer come from the fourth-fifth century levels of the terp at Feddersen Wierde, near Bremerhaven. The writer is indebted to Dr W. Haarnagel for the opportunity to examine the pieces in question.
III C. Peers and C. A. R. Radford, in Archaeologia, LXXXIX, 1943, 83 and Fig. 27.
112 Kindly shown to the writer by Mr Charles Green; as yet unpublished.
113 v. n. 104.
114 The site, now destroyed, was excavated by S. S. Frere and the writer. A fifth-century pedestal vase found nearby suggests that the settlement was of early origin. All the loom-weights were found on the floors of Grubenhaüser, and were unbaked.
115 In a letter to the writer, dated 14 April 196r: 'Le style de l'effigie, la forme de la croix me font penser qu'il s'agit d'une imitation continentale d'un triens de $\mathrm{CHOE}=$ Huy (Belgique) du monétaire Bertoaldus
(Cf? Belfort, Description Générale . . ., No. I550) qui porte les légendes: CHOEFICIT et BERTOALDO déformées: CHOI + IIT et BEPPEHINO. Il est possible de dater cette catégorie de monnaies des environs de $650 / 660$.'
I 16 E.g., E. T. Leeds, Early Anglo-Saxon Art and Archaeology, Oxford, 1936, Pl. XXX (b, c) ; PI. XXXII, esp. (2, 4, 5, 8 and 9): ibid., PI. XXX (g), a buckle from Tostock, Suffolk, offers a particularly close analogy to G2 in the washers surrounding its rivets. The decorative effect of such beaded mounts is well demonstrated in the inlaid jewellery from Sutton Hoo, Suffolk, and in the great gold buckle the beading surrounding the domed bosses serves to integrate the functional and ornamental elements (R. L. S. Bruce-Mitford, The Sutton Hoo Ship-Burial, British Museum Guide, 1947, Pls 19 and I respectively).
117 E.g., ibid., PI. XXX (d), pendant from Womersley, Yorks.; Guide to Anglo-Saxon Antiquities, British Museum, 1923, Pl. III (6), pendant from Acklam Wold, E.R. Yorks. A further instance is afforded by a detached washer, similar to $G 2$, found at Whitby (C. Peers and C. A. R. Radford, in Archaeologia, LXXXIX, 1943 , 52 (under No. 13)), to which Mr D. M. Wilson has kindly drawn the writer's attention.
118 E.g., in Scotland, on a fragmentary penannular brooch of silver with gold filigree from Achavrole, Dunbeath, Caithness (Nat. Mus. Scot., Edinburgh); and, in Ireland, on the Tara Brooch and the Ardagh Chalice (Nat. Mus. Irel., Dublin).
119 The relevant inlaid metalwork is drawn together by V. Evison in Ant. 7., XXXV, 1955, 20-45, and XXXVIII, 1958, 240-4. A wider survey is given by W. Holmqvist, Tauschierte Metallarbeiten des Nordens, 1951. The form of the large buckle-hoop from Yeavering is well paralleled at Bifrons (Baldwin Brown, The Arts in Early England, III, Pl. LXX (5); at Gilton (B. Faussett, Inventorium Sepulchrale, ed. C. Roach Smith, 1861, 30); and at Kempston by a meerschaum buckle with a panel of Style I ornament (B.M. Anglo-Saxon Guide, 1923, Fig. 84). The possibility that the broken Yeavering buckle was of some age when redeposited must be borne in mind.
120 E.g., at Lagore (H. Hencken, Lagore Crannog, PRIA, LIII, Section C, No. I, 1950, Fig. 20, 739).
121 C. M. Piggott, in PSAS, 7 th s., LXXXII, 1947-48 219-20.
122 Shouldered forms are well represented by G. Baldwin Brown, loc. cit., n.r19, Pl. XXVIII; flabbier forms are illustrated by E. T. Leeds in Archaeologia, LXXVI, 1926-27, Pl. VI, Fig. I, XIII (upper left). The two 'types' often occur on the same site (as at Finglesham, v. S. C. Hawkes, in Med. Arch., II, 1958, Fig. 16).

123 E.g., atGarryduff, Ringfort I, in Ireland (M. J. O'Kelly, in PRIA, LXIII, Section C, No. 2, 1962, Fig. 4).
124 Discussed by G. Baldwin Brown, op. cit., n.119, IV, 394-6, Pl. LXXXVIII. A Roman example showing the same rounding-off of the prongs is illustrated by E. Ritterling in Mitteilungen der Altertums-Kommission für Westfalen, II, 1901, Taf. xxv (4). Among numerous instances from Anglo-Saxon cemeteries in England is that illustrated by T. C. Lethbridge, in Recent Excavations in Anglo-Saxon Cemeteries in Cambridgeshire and Suffolk (Cambr. A.S. 4to. Publ., n.s. III, I931, Fig. 27 (8)). The later key-forms are illustrated and discussed
by J. Petersen in his Vikingetidens Redskaper, Oslo, 1951, 467, Figs 257 and 258.
125 H. Hencken, op. cit., n.120, Fig. 42, D.
126 Ibid., Fig. 37, C.
127 Anglo-Saxon instances are discussed by G. Baldwin Brown, op. cit., n.119, IV, 408-II; and his Pl. XCIV, 4 , closely resembles the Yeavering piece. For the Garryduff instances see M. J. O'Kelly, op. cit., n.123, Fig. 7, 297 and 38 r .
128 C. W. Phillips, in Ant. 7., XX, 1940, 188, Fig. 14. These examples correspond very closely with the rivets of the Swedish grave-boats at Vendel and Valsgärde e.g., G. Arwidson, Die Gräberfunde von Valsgärde, I: Valsgärde 6, Uppsala, 1942, Taf. 42, nos. 655, 113, 762, 35, 578).
129 S. S. Frere, in Gallia, XIX, 1961, 3I-54, Fig. 9 (3).
r 30 Information kindly given by Dr W. Haarnagel while the writer was visiting the site.
131 G. Baldwin Brown, op. cit., n.119, III, 150, and Pl. XI, 6. For north-European comparanda see J. Brondsted, in Acta Archaeologica, VII, 2-3, 1936, Figs 37, 41 and 42.
132 C. Green, Sutton Hoo, Merlin Press, 1963, 57, for 'pseudo ship-burials' at Caister.
I33 Prof. E. M. Jope points out that the small, unperforated dumb-bell bead from Lagore illustrated in PRIA, LIII C, 1950, 139-41, Fig. 67, 1471, is of somewhat similar greenish glass. Unfortunately, the piece is unstratified.
I34 Admittedly, such coins must have served mainly as a convenient form of bullion; but the contents of the Sutton Hoo purse show nevertheless that a person of wealth and rank might be expected to carry - and, presumably, to circulate - gold pieces. It is most unlikely that so insecure a site as Yeavering ever boasted a permanent treasury, and GI is probably representative of coins that travelled from place to place with their owners and were thus exposed to wear.
135 R. L. S. Bruce-Mitford, The Sutton Hoo Ship Burial, British Museum Guide, 1947, 13 and n.1; Pls 2 (b and c) and Fig. 3.
${ }_{1} 66$ Bede, $H E$, II, xvi. Is it not possible that there was a standard-bearer also at the door of the king's hall? The Welsh Laws require that 'From the time when the king enters the hall until each man goes to his lodging, the door-keeper is not to go from the door further than the length of his arm and his rod' (trans. M. Richards, The Lawes of Hywel Dda, Liverpool, 1954, 39). It might not be too fanciful to see this guardian of the threshold at Yeavering as the Door-keeper of the Hall, with his rod.
$137 C f$. the boar-crest on the seventh-century Benty Grange helmet (Sheffield City Museum Annual Report, 1955$56, \mathrm{I} 3-\mathrm{I} 5$, Pls. 42 and 4 c ) and the effigy on the (lost) migration-period urn from Issendorf, nr Stade (R. H. Hodgkin, History of the Anglo-Saxons, Oxford, 1939, r, Fig. 2).
138 R. L. S. Bruce-Mitford, in Codex Lindisfarnensis, Urs Graf, 1960, I, 221 Iff ., 291.
139 It is certainly unparalleled in the early Anglo-Saxon world. In the elaboration of its palisading and entranceworks it is perhaps a little reminiscent of such late-Ironage fortifications as the 'Erdenburg' at Bensberg, near Köhn (W. Buttler, in Germania, 20, 1936, Abb. 2 and 3,

Tafel 35); but no particular significance can be attached to so vague a resemblance.
140 RCAM: Roxburgh, HMSO, 1956, I, 19-20 and refs, and Fig. 20.
141 Relevant instances are listed by G. Jobey in Arch. Ael., $4^{\text {th }}$ s., XL, 1962, $3^{1-4}$ (map, p. $4^{8}$ ).
142 E.g., Ingram Hill (A. H. A. Hogg, in Arch. Ael., $4^{\text {th s., }}$ XX, 1942, 1 10-20), and Huckhoe (ibid., XXXVII, 1959, 217-78).
143 E.g., in the native fort at Inchtuthil (J. Abercromby, PSAS, XXXVI, 1902, 232 and Fig. 19); in the 'Celtic homesteads', dated to the second or third centuries AD , at Ballacagen, near Castletown, Isle of Man (G. Bersu, in Journal of the Manx Museum, V, 1945-46, Nos. $72-3,1-6$ ) ; and in the rath of Lissue, Co. Antrim (G. Bersu, in Ulster Fourn. of Arch., 10, 1947, 31), where, as discussion with the excavator has made clearer, the palisade-technique is essentially similar to that of the north-British sites now under review.
144 Loc. cit., n. 140 for refs. See also G. Jobey, in Arch. Ael., $4^{\text {th }}$ s., XL, 1962, $12-18$ and notes.
145 RCAM: Roxburgh, Fig. 20.
146 The latest reasonably dated example is provided by Huckhoe ( $v$. n.I42). The dating of native settlements in the north is an extraordinarily difficult matter. Small-finds are in any case rare, and are seldom strictly datable. Chronology rests for the most part on the presence or absence of certain quern-types and provincial-Roman manufactures. The study is largely based at present on structural typology, and those few sites that are loosely dated by such associated material are necessarily assumed to be representative of each structural group as a whole. Within its unavoidably crude limits the system works well enough for those periods in which agricultural development and Romano-British trade provide chronological indicators; but clearly, where metalwork is absent, there will normally be difficulty in distinguishing works of the fourth, fifth and sixth centuries. Thus, it would be rash to assume that the native tradition in palisadeconstruction did not outlive the Roman Iron Age, when there are other indications of a substantial degree of continuity in native mores.
147 C. M. Piggott, in PSAS, LXXXII, 1947-48, 193-223.
$14^{8}$ Ibid., LXXXIII, 1948-49, 45-67.
149 Ibid., Pl. XIV (1) and (2); and Figs 6 and 9.
150 Ibid., Fig. 9.
151 RCAM: Roxburgh, No. 994, Fig. 581.
152 R. W. Feachem, in PSAS, XCIII, 1959-60, 174-91. The present writer gratefully acknowledges the kindness which has allowed two of Mr Feachem's plans to be reproduced here as Fig. 95.
153 K. W. Steer, in PSAS, LXXXVI, 1951-52, 81-105, Pls XVII-XIX, Figs 5 and 6. See also, in this general connexion, I. A. Richmond in PSAS, LXXIII, 193839, esp. pp. 115-21, Figs 3 and 4.
154 RCAM: Roxburgh, II, No. 597, Fig. 420. The square towers enclosed by circular palisades that are carved on the Trajan Column (C. Cichorius, Die Reliefs der Traianssäule, Berlin, 1896, I, Tafel iv) illustrate the use of a kindred form in another fringe-area of the Roman empire.
155 K. W. Steer, in PSAS, LXXXIII, 1948-49, 64-7.

I56 It is possible that light will be thrown on this issue by excavation of a series of palisaded enclosures recently discovered in the Tweed Valley in the course of Dr St Joseph's air-reconaissances. All are on relatively low ground, and most are set-like the Yeavering enclosure at the edges of river bluffs. A particularly relevant example is provided by cropmarks on a bluff beside the Haystoun Burn at Hogbridge, Peebles (NT 2603go: University of Cambridge Air-Photograph Collection No. DK22), showing an enclosure with triple outer palisade-trenches and a possible indication of a widely looped terminal. Wide spacing of the palisades is a common feature in this series, and may well prove to be a 'late' characteristic.
The wolf, meanwhile, provided ample cause for continuity in the tradition of palisade-construction. Seldom if ever directly seen in the archaeological record, it is likely nevertheless long to have remained the most fearsome natural feature of the human environment in highland Britain. According to the Braty Tyreysogion of Caradoc of Llancarvon, Gwynedd was required for some time in the tenth century to pay a tribute of 300 wolves yearly to Edgar; and Scotland was not free from this creature's devastations much before the middle of the eighteenth century. The British bear may have suffered from its popularity in Roman circuses, but it too seems nevertheless to have outstayed the Romans.
157 I. A. Richmond, in PSAS, LXXIII, 1938-39, i10-54, Pls LIV-LVIII.
158 I. A. Richmond, in Essays in Building History: in memory of Bryan O' Neil, ed. E. M. Jope, Odhams, 1960, 15-26, esp. 22.
159 A. H. A. Hogg, in Aspects of Archacology, Grimes, 1951, 200-13, Fig. 53. The chronology of the Traprain oppidum is discussed in an important paper by E. Burley, in PSAS, LXXXIX, 1955-56, 118-20, esp. 143.
I60 Gunnar Peak, Northumb., provides a second-century instance; and Ingram Hill, Northumb., shows a series of undated rectangular and sub-rectangular buildings built against a pre-existing stone-walled enclosure, which itself presumably belongs to a late phase of the pre-Roman or an early phase of the Roman Iron Age (A. H. A. Hogg, in Arch. Ael., $4^{\text {th }}$ s., XX, 1942, ${ }^{155-73}$, and XXXIV, 1956, 150; and refs). Huckhoe, Northumb., is an outstandingly important instance, in that two rectangular buildings are demonstrated to have been in use in late-Roman and post-Roman times (G. Jobey, Arch. Ael., $4^{\text {th }}$ s., XXXVII, 1959, 217-78).
161 For which the evidence is conveniently summarized by P. Corder, in Aspects of Archaeology, Grimes, 1951, 82 and notes.
162 E.g., Tre'r Ceiri, Caerns. (R. E. M. Wheeler, in Trans. Hon. Soc. of Cymmrodorion, 1920-21, 55).
${ }^{1} 63$ E.g., Din Lligwy, Anglesey (E. N. Baynes, in Arch. Cambrensis, 6 th s., VIII, 1908, 183-210; ibid., LXXXV, 1930, 375-93: and Pant-y-Saer, Anglesey (C. W. Phillips, in ibid., LXXXIX, 1934, I-36).
164 T. C. Cantril, in ibid., 6th s., X, 1910, 271-82; T. C. Lethbridge, in ibid., LXXXV, 1930, 366-74.
165 O. Klindt-Jensen, in Vallhagar, a Migration Period Settlement on Götland/Sweden, ed. M. Stenberger, Copenhagen, 1955, II, 977-85, and refs.

166 Rolf Lundström, ibid., 1033-47.
167 E.g., at Känne, Stavgard, East Gotland (ibid., II, Fig. 357) ; at Vallhagar, East Gotland (ibid., I, Figs 57 and 73); and at Sostelid, Åseral, Norway (ibid., II, Fig. 396).
168 E.g., at Höglundar, Stendyrka, Gotland (ibid., II, Figs 36 r and 362 ) ; at Stenstu, Hejde (ibid., II, Fig. 372); and at Vallhagar, East Gotland (ibid., I, Fig. 84).
169 In Norway, a 'boat-shaped' house at Stord, with welldeveloped slots along the inner edges of the walls (E. Hinsch, in Arbok for Universitetet i Bergen, Humanistick Serie, 1960, No. 2; in Sweden, houses with a similar feature at Helgö, Ekerö, Uppland, in an important settlement of AD $400-800$ which was the forerunner of Birka (the most relevant examples are unpublished at the time of writing, but the excavations of 1954-56 are lavishly recorded in Excavations at Helgö, ed. W. Holmqvist, Kungl. Vitterhets Historie och Antikvitets Akademien Stockholm, 1961).
170 O. Klindt-Jensen, op. cit., n. 165 , II, 977, and Bornholm $i$ Folkevandringstiden, Copenhagen (Nationalmuseet), 1957.
${ }^{171}$ G. Hatt, Norre Fjand, an Early Iron-Age Village-site in West Jutland, Copenhagen, 1957.
172 Ibid., 364.
${ }_{173}$ Ibid., Pl. IIIB (Figs 3-9 are also of special interest in the present connexion).
174 Ibid., 1 1-12.
${ }^{1} 75$ Ibid., 364.
${ }_{17} 6$ G. Hatt in Aarboger for Nord. Oldk, og Hist., 1938, s. 218 ff ; see also O. Klindt-Jensen, in Saertryk af Nordisk Kultur, XVII, Byggnadskultur, 1953, 71-105, esp. 85-9.
177 E. Albrectsen, Aarboger for Nord. Oldk. og Hist., 1946, I-7I.
${ }^{1} 78$ J. Brøndsted, Danmarks Oldtid, III, Copenhagen, 1960, 395.
${ }^{1} 79$ O. Voss, in Skalk, No. 2, Åarhus, 1960, 4-6.
180 A. Bantelmann, Tofting, eine Vorgeschichtliche Warft an der Eidermündung, Neumünster, 1955. The relationship between these two groups is argued in pp. 39-46, and a particularly interesting comparative series of recon-struction-drawings (Abb. 7) has considerable bearing on the form of wall-construction that has here been discussed.
181 W. Haarnagel, in Offa, II, 1937, $3{ }^{1-78}$.
182 W. Haarnagel, in Neue Ausgrabungen in Deutschland, Berlin, 1958, 215-28; and in Germania, 39 (I96I) and 41.

183 W. Haarnagel, in Probleme der Küstenforschung im sïdlichen Nordseegebiet, Hildesheim, 1940.
184 E. A. van Giffen, variously in Jaarverslag van de Vereeniging voor Terpenonderzoek, Groningen, of this and other related sites. These scattered publications of the Ezinge material are made more readily accessible by reference to van Giffen in Germania, 20, 1936, 40-7, and to P. C. J. A. Boeles, Friesland tot de Elfde Eeuw, 's-Gravenhage, 1951: English summary, 559-98.
185 This and other relevant issues are demonstrated and discussed by A. Zippelius in his invaluable survey Das vormittelalterliche dreischiffige Hallenhaus in Mitteleuropa, in Bonner Fahrbücher, 153,1953 , 13ff. The present writer has had the great benefit of long and detailed
discussion of the Ezinge and Einswarden material with the excavators concerned, Professors van Giffen and Haarnagel, and finds himself in close agreement with Dr Zippelius's reconstruction-drawings of the buildings (Figs. 97 and noo are reproduced here with Dr Zippelius's kind permission).
186 E. A. van Giffen, in Nederlands Kunsthistorisch Faarboek, 5, 1954, $11-38$.
187 Ibid., 38.
188 v. n. 172.
189 W. Winkelmann, in Germania, 32, 1954, 189-213; and in Neue Ausgrabungen in Deutschland, Berlin, 1958, 492-517.
190 Ibid., Abb. 12.
191 Ibid., Tafel 28, 1.
192 Ibid., 196-7, Abb. 7 and Abb. 8.
193 Ibid., Abb. 7 and Abb. 8.
194 Ibid., 201-4.
195 E. A. van Giffen, in Germania, 20, 1936, Abb. 1, Abb. 5.
196 J. F. Berry, in $7 R S$, XLI 1951, 25. (See also I. A. Richmond, in $\mathcal{F} R S$, XXII, 1932, 96 -106.)
197 Ibid., table on p. 26.
198 E.g., at North Warnborough (Proc. Hants. Field Club, X, 1926-30, 225, and 7RS, XXI, 1931, 242f.); and at Hambleden (Archaeologia, LXXII, 1921, I4I).
199 C. A. R. Radford, in fourn. Royal Inst. of Cornwall, n.s., I, Appendix, 195I, i-I Ig.
200 I. A. Richmond, op. cit., n. 158.
201 Conveniently illustrated by P. Salway, in Arch. Ael., $4^{\text {th }}$ s., XXXVI, I 958 , plan facing 227.
202 'Wondrous is this wall-stone . . . unmoved after storms . . . says the later Anglo-Saxon author of The Ruin (trans. R. K. Gordon, Everyman, 1954, 84). But his hyperboles are less telling than Bede's account of Cuthbert's visit to Carlisle, during which the saint was specially conducted by the citizens to see the city wall (and a well) 'built in a wonderful manner by the Romans' (Bede, Life of St Cuthbert, VIII; ed. B. Colgrave, Two Lives of Saint Cuthbert, Cambridge, 1940, 242-4 and note on 334).
203 In a lecture given to the Society of Antiquaries in February 1957.
204 The writer gratefully acknowledges the information given by Mr A. C. Thomas and Mr V. Megaw, the excavators concerned.
205 As this book goes to press, identification of the 'firereddened' surface as a purely geological feature resolves the issue and there is consequently far greater probability that the structures are of seventh- or eighth-century date.
206 Bede, HE, III, xxv.
207 Ibid., II, iv. Nevertheless, it is possible that when Bede used the phrase he was merely illustrating his point by reference to the situation in his own day; by which time the building of stone churches perhaps seemed characteristic of Northumbria, while the timber church remained typical of the Irish. His account of Adian's own church (HE, III, vii) suggests that it may have had external buttress-posts such as were common to both Style III and Style IV at Yeavering.
208 As given by Colgan, in Trias Thaumaturga, 523.

209 M. and L. de Paor, Early Christian Ireland, Thames \& Hudson, 1958, 57, and general summary of relevant evidence in Chap. II.
2 1o I. A. Richmond, in $\mathcal{F} R S$, XXII, 1932, 96-1о6.
211 Ibid. See also E. MacNeil in PRIA, XXXVI, C, No. I6, 1923, and the corrections and elucidations of A. Binchy in Med. $\mathcal{E}$ Mod. Irish Series, XI, Dublin, 1941. Analogous evidence from the early medieval Welsh laws is considered by I. C. Peate, in The Welsh House, Evans, 1946, 1 12-33.
212 Useful discussions of clinker-built ships and boats in the north are given by J. Hornell, in Antiquity, XIII, 1939, 36-9, and C. Green, Sutton Hoo, Merlin Press, 1963, Chap. III.
213 W. U. Guyan, Jahrbuch der schweizerische Gessellschaft für Urgeschichte, XLII, 1952, 174-97.
${ }_{21}{ }_{4}$ Ibid., Abb. 64 and Abb. 65.
215 Ibid., Abb. 66.
216 E. T. Leeds, in Archaeologia, LXXIII, 1923, 147-192; ibid., LXXVI, 1927, 59-80; ibid., XCII, 1947, 79-94.
217 G. C. Dunning, in Ant. 7., XII, 1932, 279-93; for bibliography up to 1952, see the same author in Trans. Leicester Arch. Soc., XXVIII, 1952, 55-62.
218 G. A. R. Radford, in Med. Arch., I, 1957, 27-38.
219 W. U. Guyan, op. cit., n.213, Abb. 72.
220 W. U. Guyan, op. cit., n. 213.
221 C. A. R. Radford, op. cit., n.218, 37, summarizes the documentary evidence which gives point to the numerous instances in which loom-weights have been found in buildings of this type in Britain and abroad.
222 W. U. Guyan, op. cit., n. 213 , Abb. 70.
223 This example is used by de Paor, in Early Christian Ireland, Thames \& Hudson, 1958, 58-6o, to illustrate the development of Trish stone churches from timber prototypes; yet in its Fig. 9, a schematic transcription, the conspicuous props are shorn off from eaves-level downward. In its authentic form this illustration has at least equal bearing on the matter.
224 J. Nihlen and G. Boethius, in Gotländska Garrdar och Byar under AAldre Farnaldern, Stockholm, 1933, 24. Use of developed timber buttresses in later times is to be seen in Scandinavian timber bell-towers and churches, and a particularly interesting example of this device is offered by the stave-church at Rodven, Romsdal, Norway (Kulturminner, ed. Bugge, Oslo, 1950, 60-1).
225 E.g., in Britain, by the theatre at Verulamium (K. M. Kenyon, in Archaeologia, LXXXIV, 1934, 213-61, Pl. LXVII: list of analogous continental theatres 247-53, and examples illustrated in Figs 3-8).
226 R. Laur-Belart, in Römisch-Germanische Forschungen, X, and R. Fellmann, Fiihrer durch das Amphitheater von Vindonissa.
227 L. Klima and H. Vetters, in Der Römische Limes in Osterreich, XX.
228 The kindness of Mr F. H. Thompson in supplying information and allowing it to be used here is gratefully acknowledged.
229 K. M. Kenyon, op. cit., n.225, 242-7.
230 Ibid., Fig. 2; see also O. Brogan, Roman Gaul, Bell, 1953, 77-80.

231 At Verulamium (K. M. Kenyon, op. cit., n.225); at Gosbeck's Farm, near Colchester, and at Canterbury (F. Rivet, Town and Country in Roman Britain, Hutchinson, 1958, 86).
232 It seems fitting that the last orator known to have stood on the site of that platform was an outstanding representative of Roman Britain. Professor Ian Richmond addressed the shades of the ancient assembly at Yeavering, during the winter of 1955 , after he had taken his place in the modern audience of the writer's experiments; and he subscribed to the conclusion expressed above.
233 Nor, in the writer's opinion, is it to be connected with the Scandinavian sanctuaries known as Vis, as published by E. Dyggve, in Scripta Minora, I959-60: I, Lund, 196o, 3-28.
234 I. A. Richmond, Roman Britain, Penguin Books, 1955, 80 (Cape edn, 1963, 65).
235 Instances of ox-skulls in prehistoric graves are noted by J. R. Mortimer, Forty Years Researches in British and Saxon Burial Mounds in East Yorkshire, 1905, in connection with Barrow 264 at Driffield, E.R. Yorks.
${ }_{236}$ The Scottish series is the subject of a definitive paper by A. Henshall, in PSAS, LXXXIX, 1955-56, 252-83 (list and refs in her App. II). Minor modifications apart, Miss Henshall's distribution-map of long-cist cemeteries has been used in the compilation of Fig. IIo in the present work, and the writer gratefully acknowledges his debt.
237 E. Bracco, in Notizie degli Scavi, 1950, 140-81, suggests that unfurnished graves of comparable character in Italy are reflective of Germanic practice in the sixth and seventh centuries; but the long-cist cemeteries of northern and western Britain appear to begin in a period when the 'Celtic fringe' was still unaffected by Anglo-Saxon influences.
238 J. Werner, in Arch. Geographica, I, 1950, 22-32, discusses the background of the 'row-grave' phenomenon, and gives useful references.
239 Some of the numerous undated cist-burials of this and other Celtic regions of the north could conceivably belong to the pre-Roman and Roman phases of the Iron Age. This is a purely speculative notion, but it seems uneconomical to conclude (on no better evidence) that the prehistoric and early-historic occurrences of the cist-and-standing-stone custom in the same Celtic regions are entirely separate and unrelated phenomena. Archaeological dependence on datable artifacts tends, in unfavourable circumstances, to reduce the past to a series of discrete aggregations - where normally the real pattern will have been akin to that of the flowing currents in a river. In the present instance, it happens that some cist-burials can be dated to the Bronze Age by reference to grave-goods, and that some others can be ascribed to the Early Christian period on the grounds of their collective organization and loose association with memorial-stones; but there is no evidence to show that there was in reality any discontinuity between the early and late examples.
240 The point is conveniently discussed in its northern context by A. Henshall, op. cit., n.236, and by R. B. K. Stevenson in PSAS, LXXXVI, 1951-52, 106-11.
241 In the authoritative discussion of the Yarrow Stone by C. A. R. Radford in RCAM: Selkirk, 110-13, the essen-
tial references to both monuments are given. The Early Christian Orans incised on a slab of greywacke found at Over Kirkhope, in the next valley to the south of the Yarrow Water, may well be of even earlier date and should not be overlooked (op. cit., 69-70 and frontispiece).
242 RCAM: Roxburgh, I, No. 78, 88-9.
243 R. A. S. Macalister, Corpus Inscriptionum Insularum Celticarum, Dublin, 1945 and 1949, No. 498.
244 The presumptive relationship between the Yarrow Water inscribed and uninscribed standing-stones is given convincing context by the association of the two forms at Gwytherin, Denbighshire, cited by Radford (loc. cit., n.241).
245 T. G. E. Powell, The Celts, Thames \& Hudson, 1958, esp. 132-42.
246 J. S. P. Bradford and R. G. Goodchild, in Oxoniensia, 1939, 25-148.
247 Bruce Dickins, in Engl. Place-Name Soc., XI (Surrey), 1934, 403-6.
248 H. M. Chadwick, in 7ourn. Roy. Anthrop. Inst., XXX, n.s. III, 1900, 22-44 (esp. 30-1, 33, 34).

249 J. R. Mortimer, op. cit., n.235, Fig. 745a.
250 It is possible that some cemeteries which appear from the results of limited excavations to be monocentric will prove, when investigated on a larger scale, merely to be parts of larger, polycentric burial-grounds. Cemeteries in which the graves are laid out in regular, parallel rows (e.g., those discussed by Baldwin Brown, in The Arts in Early England, III, 1915, 155-7) probably betoken a unified ritual intention, but the possibility that in some instances they exist within formal enclosures has yet to be explored.

The polycentric type is more clearly in evidence. Several of the best instances are of late date, and some seem to extend into the period after the Conversion. Shudy Camps is a remarkable example (T. C. Lethbridge, A Cemetery at Shudy Camps, Cambs., Cambr. A.S. $4^{\text {to }}$ Publ., n.s. V, 1936, esp. 1 and 30 , and folding plan), and Burwell and Holywell Row too show possibly significant groupings of graves (T. C. Lethbridge, Recent Excavations in Anglo-Saxon Cemeteries in Cambs. and Suffolk, Cambr. A.S. 4to Publ., n.s. III, 1931, Plans 2 and 4). Similarly localized concentrations of burials occur on earlier sites, and something more than a random scatter appears to be in evidence in such cremation-cemeteries as Lackford (T. C. Lethbridge, An Anglo-Saxon Cemetery at Lackford, Suffolk, Cambr. A.S. 4to Publ., n.s. VI, Plan II) and Sancton (unpublished, but see nn. 89 and 90).
251 A. Warhurst, in Archaeologia Cantiana, LXIX, 1955, I-40, esp. Fig. i.
252 It is of some historical interest that studies of the settlements of the early Anglo-Saxon period and the Early Iron Age in Britain began alike by creating races of pitdwellers. Grubenhäuser, graves and storage-pits have this in common, that they exist archaeologically as gross masses of dark earth which must be conspicuous on the face of a quarry or a builder's trench. Post-holes, on the other hand, do not always leap to the eye, and their significance appears only when large areas are laid bare. Hence Lethbridge's picture of the AngloSaxons living in 'filthy little dens'.
253 C. Green, loc. cit., n. 128 .

254 E.g., at Lindholm Høje: T. Ramskou in Acta Archaeologica, XXVIII, 1957, 193-201, esp. Fig. 1, and J. Brondsted, Danmarks Oldtid, III, 1960, $360-2$.
255 E. Dyggve, in Scripta Minora, 1959-60, I, Lund, 3-28.
${ }_{256}$ The probability of archaic survivals in and around the Cheviot Zone should not be underrated. Until a decade or two ago, its upland world of isolated sheep-folds and shepherds' cottages was suggestive of the medieval rather than the modern age, and the testimonies of various trustworthy modern natives show that into recent times it was - or was regarded as - a stampingground for witches. It differs little in its general character from the marginal highland areas of Scotland; and there a series of pots with holes bored through their walls (part of which is to be seen in the National Museum of Antiquities in Edinburgh) appears to represent the survival of a practice better known from prehistoric examples. In one instance known to the writer, cremated bone was associated with a holed, tripod-based pitcher and a thirteenth-century coin, both of which are kept in Dumfries Museum (the burial, as it seems to have been, was found on the moors south of Dalbeattie).
257 This opinion originally rested merely on grounds of general probability; but, as this book goes to press, the writer's excavations on Doon Hill, Dunbar, have disclosed the remains of a hall which cannot be dated later than 550-600 and so (in the Tweed-Forth region) is presumably British. Partly trench-built, it reproduces the proportions of halls $\mathrm{A}_{2}$ and $\mathrm{A}_{4}$ at Yeavering (although laid out on a mensural unit of ro inches), and supplies the hypothetical need for an ancestral form based on the centre-post principle. This hall, clearly of considerable age when it was superseded by another which precisely parallels in all respects the Phase IV structures of Yeavering, appears to have been without that systematic buttressing of the long walls which at Yeavering is tentatively attributed to 'SaxoFrisian' influence; but the severe effects of recent ploughing on Doon Hill do not absolutely preclude the possibility that the remains of buttress-pits once existed and have been destroyed. The terminal centreposts of the earlier hall on Doon Hill seem to have been supported by lateral buttress-posts not unlike those at the back of Yeavering's assembly-structure, E, and it is therefore possible that the writer is in error in ascribing the presence of obliquely inclined external posts at Yeavering to Germanic influence. The 'Anglo-British' hypothesis advanced here probably remains valid, nevertheless: the problem now is to ascertain the precise form and extent of the Anglo-Saxon contribution to Yeavering-style building. Caution dictates that long-wall buttresses should be regarded as Germanic features until such time as their presence in a purely British hall can be demonstrated; but it is not without interest that the eaves of a circular, pre-Roman house at West Brandon (G. Jobey, in Arch. Ael, $4^{\text {th }}$ s., XL, 1962, 12-18, esp. Fig. 5) were supported by external posts.
258 B. K. Hope-Taylor, in Med. Arch., II, 1958, 183-5, for the former; and in Proc. Cambr. A.S., LV, 1962, 16-22, for both. For the latter, P. A. Rahtz in Med., Arch., VI-VII, 1962-63, 53-66.
259 Studies and excavations by Håkon Christie, Olaf Olsen and the writer show that the original wooden church was trench-built, with palisade-type walls, and
in plan resembled Building B at Yeavering. In its second phase the church was rebuilt on a wooden ground-sill, which the nineteenth-century restorer replaced with another on a dwarf wall of brick (Baldwin Brown, The Arts in Early England, II, 1925, 39-41). If one or other was indeed built as a resting-place for Edmund's body in 1or3, the first would naturally be supposed to have been the better claim to that distinction (which would show the survival of something akin to Yeavering-style into the eleventh century). The possibility remains, however, that the chosen ground was already consecrated, and that in roi3 the first church - already ancient and decayed, perhaps - was taken down and replaced by one more fitting to the occasion; in which case the original church at Greensted may have been standing by 900 or even earlier.
260 P. Nørlund, Trelleborg, Copenhagen, 1948, esp. Fig. 56 and p. $27^{6}$ (English summary).
261 At the time of writing, the definitive account is unpublished; but the National Museum in Copenhagen has issued a useful booklet in English (O. Olsen, Fyrkat, Nationalmuseet, 1959) which serves to set this particular issue into perspective, if over-cautiously. For some time before the Fyrkat fortress was investigated, various specialists doubted the rightness of the hypothetical reconstruction which gave the typical Trelleborg house an external 'colonnade' of vertical posts; and now there is positive reason for its rejection.
262 G. Schultz, in Fra Nationalmuseets Arbejdsmark, Copenhagen, 1949, 91-108.
263 B. K. Hope-Taylor, Proc. Cambr. A.S., LV, r962, 16-22. The presence of boat-shaped buildings in separate postholes (virtually identical in form with those of Fyrkat) at Warendorf - where, as at Aggersborg, they superseded strictly rectangular forms - constitutes the one notable exception to the generally Anglo-Scandinavian distribution of the type. The example at Hodde, Denmark ( $v$. n. 178 above) is ascribed to the beginning of the Roman Iron Age, or earlier, whereas at Warendorf ( $\mathrm{n} . \mathrm{I} 89$ ) and Aggersborg ( n .262 ) the boat-shaped plan appears to be an eighth-century feature. It seems more economical to conclude that the later phases of Warendorf are representative of influence from Scandinavian fashion than that the boat-shaped building is a hidden feature of the earlier archaeology of north Germany. The possible connexion between Yeavering-style and the rectangular hall-houses of Warendorf's first phases has been discussed above (p. 288), and since use of the external, inclined buttress is typical of both sites it would be rash to attribute its appearance at Fyrkat to influence from one source rather than the other. The earliest known occurrence of solid-walled, trench-based buildings with such buttresses is, however, at Yeavering. The later popularity of the boat-shaped ground-plan is probably a quite separate issue, and is for the moment best regarded as a sign of growing Scandinavian influence in the north-west from the eighth century onward.
264 P. Nørlund, op. cit., n. 260 , esp. 278 and 285.
265 B. K. Hope-Taylor, loc. cit., n. 263, 21, n.3.
266 E. Ekhoff, Svenska Stavkyrkor, Stockholm, 1914-16, 148-78, esp. Fig. 140. In Denmark, the stave-church at Jellinge, built later in the eleventh century, was constructed in the same fashion (the grave-chamber under the northern mound at Jellinge, a tenth-century struc-
ture with pagan associations, was lined with vertical planks). Although there are among the houses of the Viking towns some that are wholly or partly composed of vertical 'staves' (notably at Hedeby, where the missionary Ansgar built Denmark's first Christian church early in the ninth century), the dominant themes overall are, on the one hand, the development of economical sill-built structures and, on the other, exploitation of the eastern style of building based on horizontal use of logs - easy, but extravagant in material and architecturally inhibiting. In short, although the rudimentary principle of stave-construction appears to have been known from the eighth or ninth century onward in Scandinavia, the known examples indicate that its formal adoption for 'official' buildings is a feature of the period around $1000-$ when, as in north Britain four or five centuries earlier, there was special occasion for new development and for emulation of a foreign tradition of masonry.
267 For notice of what may actually be an ancestral British form embodying 'flying' wooden buttresses, see n.257.
268 In an impressive analysis of the formative context of the art of the Northumbrian Golden Age, R. L. S. BruceMitford (Codex Lindisfarnensis, Lausanne, 1960, II, Part IV, esp. 115) convincingly argues that the legacy of Roman Britain is generally underestimated, and cites the Yeavering 'theatre' as a supporting instance.
269 The minute divisions pricked out on the folios of the Lindisfarne Gospels have been closely studied and elegantly demonstrated by R. L. S. Bruce-Mitford, who points out the same concern for precise geometry in the jewellery of Sutton Hoo (op. cit., n.268, Chap. VIII, esp. pp. $22 \mathrm{I}-2$ ). Analysis of the metrological system used in the Lindisfarne scriptorium has yet to be undertaken, and it would be premature to comment on its possible connexion with the mensural procedures in evidence at Yeavering.
270 Bede, $H E$, II, xiv.
271 Ibid.
272 Anglo-Saxon Chronicle (D. M. Whitelock, English Historical Documents, I, Eyre \& Spottiswoode, 1955, I45).
273 K. H. Jackson, in LHEB, $212-\mathrm{I} 3$, and in other writings, has strongly re-stated the arguments on which that interpretation rests. See also F. M. Stenton, Anglo-Saxon England, Oxford, 1947, 76, for comment on the Nennian account of the besieging of Theodric on Lindisfarne.
274 Bede, $H E$, I, xxxiv.
275 v. P. Hunter Blair, in Studies in Early British History, Cambridge, 1959, ${ }^{5} 5^{2}$, 159 .
276 Bede, $H E, I I$, xvi.
277 Ibid., II, xiv.
278 Ibid., II, xx.
279 Ibid., II, xiv.
280 Ibid., III. i.
281 Ibid., III, iii.
282 Ibid., III, xvi.
283 Ibid., III, xvii. Although this incident has always been taken to relate to a church at Bamburgh, on or near the site of the parish church dedicated to St Aidan, Bede's words are not unambiguous in this respect. He says merely that the church lay in a villa regia not far from Bamburgh (. . . in villa regia non longe ab urbe . . .).

It seems possible either that a villa regia awaits discovery near the foot of the great rock-fortress at Bamburgh, or that Aidan's church stood in another township further inland. In the latter case, the earlier history of Ad Gefrin might justify its consideration as a candidate; but its church (Building B) appears to have been burned down and rebuilt only once, and it is probable that by the time in question Maelmin also was functioning. The vagueness of the words non longe ab urbe, ignorance of events at Maelmin, and the possibility that other royal estates unknown to us existed in the area, do not allow of any serious attempt to invalidate the accepted location of Aidan's church; but the issue possibly deserves more critical attention than it has formerly received.
284 Ibid., III, xxiv.
285 Symeon of Durham (Rolls Series, I, 197). A map conveniently showing the places said to have been involved in this grant is given in RCAM: Roxburgh, I, 36, Fig. 23.
286 Bede, HE, III, xxiv.
287 Ibid., IV, v.
288 Ibid., IV, xxvi.
289 Ibid., I, xxx.
290 Ibid., II, xvi. Progresses involving judicial administration are later seen as a recognized feature of the Celtic world, too (W. Rees, in Angles and Britons, Cardiff, 1963, I53). The Welsh Laws specify nine buildings that are to be put up for the king by the bondmen of the commote (M. Richards, trans., The Laws of Hywel Dda, Liverpool, 1954, 57), and contain much other matter that is of interest in the present context.
291 H. M. Chadwick, Studies on Anglo-Saxon Institutions, Cambridge, 1905, 25 I and esp. 260.
292 D. M. Whitelock, The Beginnings of English Society Pelican History of England, 2, 1954, 5.5. See also n. 290 above.

293 The loca or tribal meeting-places of the intramural region in the Roman period are briefly considered by 1. A. Richmond in Roman and Native in North Britain, Nelson, 1958, 107-8, 120, 148-9, and refs.
294 Bede, HE, II, xiv.
295 Ibid., I, xxxiv.
$296 \mathrm{~J} . \mathrm{nn} .39$ and 40.
297 A. H. Smith, in Proc. Brit. Acad., XLII, 67-88, sets the problem of dating place-names into realistic perspective. Clearly it would be wrong to assume solely on the basis of the place-names now in question that there was any substantial influx of Anglo-Saxon settlers into this region in the pagan period. It is conceivable, indeed, that Edwin's concern for the conversion of Bernicia arose from a desire to create conditions there that would allow settlers from Deira to be introduced - both expedients would serve his need to unify the two territories. The uncertain claim of the Howick cemetery ( p .283 ), near the mouth of the Aln, to AngloSaxon identity would become more plausible if the burials were accepted as belonging to a Christian phase after 627 or 635 . Poorly furnished graves of this kind in southern England are characteristic of the last chapter in the history of the open cemetery, roughly from the middle to the end of the seventh century
(full discussion and references conveniently given by M. Hyslop, in $\mathcal{J} R A I$, CXX, $1963,188-94$ ).

298 J. E. A. Jolliffe, in Eng. Hist. Rev., XLI, 1926, 40-2.
299 W. Rees, in Angles and Britons, Cardiff, 1963, 148-68, esp. 166-8.
300 Bede, $H E$, V, xxiv.
301 v. n. 272.
302 Nennius, $H B$, ch. 61.
303 K. H. Jackson, in Celt and Saxon, Cambridge, 1963, 28.
304 Nennius, $H B$, ch. 63.
305 I. Williams, Canu Aneirin, Cardiff, 1938. There is great need for a definitive translation of this work in its entirety into English. The Rev. J. W. Ab Ithel of Llanymowddy realized this over a century ago, but his English version (Llandovery, 1852) is a thicket of inaccuracies. C. Gresham, in Antiquity, XVI, 1942, 237-57, provides a helpful commentary. K. H. Jackson discusses the poem in Antiquity, XIII, 1939, esp. 25-32, and the splendid extract he gives in translation in his Celtic Miscellany, Routledge, 1951, whets the appetite for the rest that the sympathetic pen of the same authoritative intermediary might one day be persuaded to give the English reader. (Addendum: Now Professor 7 ackson has provided his definitive commentary on the Gododdin poem (К. H. Jackson, The Gododdin, Edinburgh, 1969).)
306 Discussed by P. Hunter Blair, in Studies in Early British History, Cambridge, 1959, 155-8 and notes.
307 E.g., v. K. H. Jackson, LHEB, 212.
308 Ibid., 213.
309 Ibid., 212 and 213; the same author in Antiquity, XIII, 1939, 32-4, and in Angles and Britons, Cardiff, 1963, 70. These examples could be multiplied by reference to other authorities: they are drawn exclusively from Prof. Jackson's writings only because those provide the best illustrations of recent authoritative opinion.
310 Whose mapping is relevantly discussed by I. A. Richmond, in Roman and Native in North Britain, Nelson, 1958, esp. Chap. VI, 139 and Fig. 6.
3II Ibid., 139-40. Yeavering lies midway between these two candidates. As a place of assembly recognized by the time of Aethelfrith or Edwin it might supply the civil sense of curia in a later context. Its role during the Roman centuries is unknown, but - as is argued in the text-some degree of continuity is to be inferred between the pre-Roman and post-Roman aspects of the place called by Bede Ad Gefrin. Nevertheless, the Roman associations of Corbridge and Traprain give them both better claim.
312 I. A. Richmond, in Northumberland County History, XV, 113-14; in Roman and Native in North Britain, Nelson, 1958, 124-5; and Roman Britain, Cape, 1963, 53 (Pelican edn, 1955, 63-4).
${ }^{1} 3$ Nennius, $H B$, ch. 62.
314 P. Hunter Blair, in Arch. Ael., n.s. XXV, 1947, 36-7.
315 Ibid., 32-7.
316 Bede, $H E, \mathrm{I}, \mathrm{xv}$.
317 H. M. Chadwick, Early Scotland, Cambridge, 1949, 149.
318 Ibid., 124, 147.

319 A. Graham, in Antiquity, XXXIII, 1959, 63-5.
320 H. M. Chadwick, op. cit., n.317, 147.
321 Ibid., 146 and n.
322 Ibid., 149 .
323 W. J. Watson, The Celtic Place-names of Scotland, Blackwood, 1926, 343-4.
324 E.g., K. H. Jackson, in Angles and Britons, Cardiff, 1963, 67.
325 For references, concise discussion and overall distributions see The Problem of the Picts, ed. Wainwright, Nelson, 1955: Chap. II, esp. 59; Chap. III, esp. 67-8 and map 2; and Chap. VI, esp. 146-8 and map 6.
326 o. nn. $24 \mathrm{I}-4$.
327 I. A. Richmond, in Roman and Native in North Britain, Nelson, 1958, i18-19 and n.ı of 1 Ig.
328 Ibid., 125 and its n.1, where Richmond gives his own opinion and acknowledges Jackson's objection to it. For further references and fuller discussion of the romanizing aspect of northern British genealogies, see P. Hunter Blair, in Arch. Ael., 4th s., XXV, 1947, 27-32.
329 Mr Feachem presented his evidence and conclusions to the Conference on the Iron Age in North Britain held in Edinburgh in 196r. At the time of writing Feachem's realistic analysis has not been published in detail, but his map of the cultural provinces and regions of the north-British Iron Age is reproduced, together with a brief commentary, by L. Rivet, in Antiquity, XXXVI, 1962, 28-30. The present writer is not wholly convinced that Feachem's Region 32 (Lower Tweeddale) is to be regarded as a separate entity - would prefer its junctions with 3I (Northumberland) and 33 (Upper Tweeddale and Upper Clydesdale) to be marked with dotted rather than hyphenated lines - but, one way or the other, the Tweed appears as a begetter of division.
330 v. n. 338 on Bamburgh.
33 I. A. Richmond, op. cit., n.327, esp. 1o1, 118 and refs.
332 For the former see K. H. Jackson, in Celt and Saxon, Cambridge, 1963, 27-8, and his reference to Sir Ifor Williams's guess that the name Din Guayrdi or Din Guoaroy implies the existence of an amphitheatre at Bamburgh (fortuitously or otherwise, curiously appropriate when considered in the light of Yeavering). For the latter, see K. H. Jackson, in The Anglo-Saxons, ed. Clemoes, Bowes \& Bowes, 1959, 35-42.
333 K. H. Jackson, LHEB, 7OI-5. Jackson points out the difficulties of the etymology from *Brigant-, which formerly was accepted as the basis for interpretation of the name, and tentatively suggests an alternative derivation which gives the meaning 'The land of mountain passes'. The Cheviots can of course supply some mountain passes; but so could the Moorfoots, and the application of such a name to any one of the intramural British kingdoms could be similarly justified. It is a little odd, perhaps, that Bernicia should be so distinguished when the formerly Selgovian territory to the west was wholly and so much more essentially a land shaped by mountains and valleys, and early Bernicia can be seen historically to have found its paramount centre in the lowlands, at Bamburgh; but the writer does not wish to make molehills out of philological mountains. The meaning is obviously more flexible than the etymology. Nevertheless, it may
be remarked that the old derivation, which carried the implication of Brigantian overlordship at some stage, might - could it be upheld - give context to the early differences between the Tyne-Tweed and TweedForth regions.
334 Nennius, $H B$, ch. 63.
335 H. M. Chadwick, op. cit., n.317, 143-4; A. W. WadeEvans, Welsh Christian Origins, Oxford, 1936, 99; I. Williams, Canu Taliesin, Cardiff, 1960, roi; but see K. H. Jackson, in Celt and Saxon, Cambridge, 1963 , 31, n.3.
336 H. M. Chadwick, op. cit., n.317, 144.
337 K. H. Jackson, op. cit., n.332, 31-2.
338 K. H. Jackson, op. cit., n. 324,69 , does indeed specify that it was a 'coalition of Cumbrians' that sought to destroy 'the dangerous new settlement' - 'a colony of Angles, the nucleus of the future Bernicia . . . round Alnwick and Bamburgh . . . in the middle of the sixth century' and again 'about the year 6oo'.
339 Preliminary excavations recently carried out by the writer at Bamburgh have revealed a stratified series of deposits, 9 feet thick, in the area taken in by the west ward of the medieval castle. The earliest layer, sealed by strata certainly laid down successively during the Roman period, was found to contain none but purely 'native' objects. The archaeological record indicates that the Bamburgh citadel was continuously in occupation from the pre-Roman period until the end of the Middle Ages; but at no point is the evidence of activity more arresting than in the period immediately following the cessation of Romano-British imports (below). This is clearly a site of crucial importance, and largescale excavations are envisaged. The writer takes this opportunity to express his gratitude to Lord Armstrong and the trustees of the Crewe Estate for their kindness in allowing the preliminary investigation to take place.
340 A sherd of 'native' pottery found by the writer in the scree at the foot of Beblow suggests that the site was occupied at an early date and would repay excavation.
341 Nennius, $H B$, ch. 62. Prof. Jackson accepts Sir Ifor Williams's emendation of the name, and discusses the Outigirn reference at various points in his masterly and indispensable study 'On the northern British section in Nennius', in Celt and Saxon, ed. N. K. Chadwick, 1963 (esp. 29, 48 and 50).
$34^{2}$ Most starkly in the article to which n .324 here refers, and also in his fundamental work, $L H E B, 213$, as in Antiquity (op. cit., n. 309).
343 K. H. Jackson, in Antiquity; loc. cit., n.309-
344 K. H. Jackson, in The Anglo-Saxons, ed. Clemoes, Bowes \& Bowes, 1959, 39 and n.5.
345 I. Williams, op. cit., n.305, xxii ff., and K. H. Jackson, LHEB, 409-11 and n.
346 K. H. Jackson, op. cit., n.344, 35-42.
347 P. Hunter Blair discusses Degsastan in Studies in Early British History, Cambridge, 1959, 155-8, and his note on its location is of value not only in itself but also for its references.
$34^{8}$ RCAM: Roxburgh, II, 306-10, 312-20; and I, 25-7. Ibid., I, 35, 102-5, 124 - 6 .
$35^{\circ}$ O. G. S. Crawford, in Antiquity, X, 1936, 346-9 and Pl. I.

351 RCAM: Roxburgh, II, App. D, 479-83 and references. K. H. Jackson, in Antiquity, XIII, 1939, 28.

353 Gildas speaks of the Britons groaning under the assaults of Scots and Picts (ch. 14) after the time of Maximus; an appeal to Rome answered by the building of the Antonine wall (ch. 15); and the return of the old enemies carried in by the strength of oarsmen and the wind (ch. 16). After telling of a further appeal and the building of the Hadrianic wall, he remarks that towers were put up at set intervals on the coast south of the wall to command a view of the sea, explaining that there were fears of enemy landings (ch. 18). Then, he says, the Romans left the island never to return; and he describes (ch. 19) the renewed invasions of the Picts and Scots, eagerly landing from the boats that had borne them from beyond the divide. Mrs N. K. Chadwick has considered the naval aspect of this story in Scottish Gaelic Studies, VIII, Pt II, esp. 170-2.
354 Ammianus Marcellinus, xxvii, 8, i. I. A. Richmond, op. cit., n. 327 , 121ff., considers the conspiratio and its effects.
355 I. A. Richmond, op. cit., n.327, $126-7$ and references; and Roman Britain, Cape, 1963, 52-4 (Pelican edn, 1955, 62-5).
356 I. A. Richmond, in Arch. Ael., $4^{\text {th }}$., XI, 1934, 99, and op. cit., n.327, 96 .
357 v. n. 339.
358 The volume of those successive deposits is too great to allow of their being representative of debris from any normal building of timber and daub, and the knoll on which they centre is too limited in area ever to have supported a structure of greater horizontal extent than a very small house or hut of 'native' type. Accordingly it seems impossible to interpret the layers of charcoal and reddened clay save as the detritus from an abnormally large fireplace or a kiln in use over a long period
359 Two historians extraordinarily well versed in archaeology have made outstanding contributions to thought about this matter. J. N. L. Myres has long urged recognition of the implications of early ceramic links between England and the Anglo-Saxon homelands, and (although such part of his argument as was based on classes of so-called 'Romano-Saxon' pottery has now lost some of its first force, as he himself acknowledges) his considered opinion expressed in Medieval Archaeology, III, 1959, esp. 10-1I, must carry great weight. The seminal article on 'The Origins of Northumbria' by P. Hunter Blair in Arch. Ael., $4^{\text {th }}$ s., XXV, 1947, 1-51, esp. $4^{1-5}$, is even more explicit and relevant in its conclusion that the early Anglo-Saxon burials at York are to be seen as those of foederati. Jackson's objection (LHEB, 212, n. 1) to Hunter Blair's argument is now without the slightest basis, since the 'corrugated ware' recognized by Myres at Caistor, York, etc., was agreed both by Danish and English specialists contributing to the 1964 Sachsensymposion in Oxford to be identical with a ceramic form that reached its maturity in Denmark by 350. There is no shadow of doubt that the first Anglo-Saxons in England were accepted into Roman Britain by - at latest - 400: thus foederati is the key-word, for our generation, in the study of the AngloSaxon 'invasions'; and the historically sanctified concept of a distinct fifth-century Adventus must now be evaluated in terms of a process of Germanization
which quite clearly began soon (if not immediately) after 367 .
360 D. A. White, Litus Saxonicum, Wisconsin, 1961, esp. 83-4.
361 Nennius, $H B, 38$, and P. Hunter Blair, op. cit., n.359, esp. $14^{-17}$ and nn .
362 v. n. 353 .
363 Gildas, ch. 21-3.
364 Bede, $H E$, I, XV.
365 Ibid., III, i.
366 If, as has been argued above (pp. 286-91), there were long-standing differences between the Tyne-Tweed and Tweed-Forth regions, it is by no means impossible that there was some contrast between them in the degree and constancy of their loyalty to the Roman cause in the fourth and fifth centuries. Manau Guotodin clearly was philo-Roman, although its sympathy was doubtless encouraged by subsidy; but the Britons at the east end of the Hadrianic line were well placed, in the Wall's declining years, to run either with hare or hounds - or both. What was their part in the events of 367 ? ( n .354 ).
367 Gildas's story might even be read as an account of the whole history of Roman Britain, as far as it was known to him from traditions that lacked a chronological framework.
368 Roman Britain, Cape, 1963, 54 (Pelican edn, 1955, 65)

369 v. n. 359. Nowhere in Britain is the evidence for extremely early Anglo-Saxon settlement more massively incontrovertible than at Caistor-by-Norwich, the cantonal capital Venta Icenorum: and there it would be ludicrous to suggest that a substantial Germanic colony had not been established before 400 . York, Lincoln, Ancaster, Cambridge, etc., have yielded material that clearly falls into the same perspective; and when the major 'pure' cremation-cemeteries of England are plotted on a map their distribution can be seen to take the shape of a wedge, with its broad, eastern end centred on the Wash - reaching to the Humber, in the north, and lightly touching Kent in the south - and its arrow-point striking south-westward towards the upper Thames. Professor Christopher Hawkes and the writer have found themselves on common ground in wondering whether some part or all of East Anglia may not have been ceded to AngloSaxon foederati in payment for services rendered - so that Norfolk, Suffolk and Cambridgeshire may actually have been what they seem to be in the eye of the modern archaeologist, the focal territory of all that is fundamentally Anglo-Saxon in the history of England. How else are the successive dykes of Cambridgeshire to be interpreted, save as so many frontiers between the old Romano-British world and the later sphere of AngloSaxon interest. This is no more than a speculation; but it might possibly be fertilizing, and so it is offered simply in the hope that it may one day be put to the test.
370 P. Hunter Blair, op. cit., n.347, 160 .
371 Constantius's Life of St Germanus is of course the prime source. Bede's version is to be found in $H E$, I, xvii-xxi.
372 P. Nørlund, Trelleborg, Copenhagen, 1948, Fig. 80.
373 v. n. 259.

374 To echo Mme Henry, it is as certain as can be that the codex known as the Lindisfarne Gospels is correctly associated with Lindisfarne. R. L. S. Bruce-Mitford and his collaborators have made this abundantly clear in the series of painstaking studies that accompanies the facsimile of this luxury gospel-book, Codex Lindisfarnensis, published - to the world's benefit - by Urs Graf-Verlag in ig6o. Reason is shown there for regarding certain other surviving MSS also as products of the Lindisfarne scriptorium. The relationship between LG and the Book of Durrow, obviously a crucial issue, is considered on pp. 255-7 ( $v$, also 90, n.3, and 91, n.6). Despite the important, but committedly Hibernian, arguments to the contrary in Evangeliorum Quatuor Codex Durmachensis, II, Urs Graf, 1960 (reviewed perceptively by Bruce-Mitford in The Times Lit. Supp., $22: 2: 1963$ ), it remains rather more than merely possible that the Book of Durrow's revolutionary ornamental aspect marks the effect of special influences exerted in northern Northumbria.
375 F. Henry prefers to detach Durrow from Lindisfarne by discounting the established idea that they stand in evolitionary relationship, suggesting that there may be a Durrow style rather than a Durrow phase (Irish Art, Methuen, ig65, i73). Nevertheless, she does not deny that Durrow is earlier than Lindisfarne, and accepts A. A. Luce's view of the text (op. cit., 167 and ref., and $I_{72}$ ). Luce himself wishes Durrow to be dated c. 630 or earlier (why 630 - why not 636 or 640 ?), which would place it before the period of 'InibernoSaxon' contact in Northumbria; but that view requires the Irish to have introduced Anglo-Saxon motifs into Northumbria - to have brought coals to the neighbourhood of Newcastle in an Irish cart that preceded its horse. Luce's 630 can be sustained only by supposing that the exile of Oswald (Bede, HE, II, r and 3) and his followers brought important new influences into the 'purely' Irish world, for at that time it is otherwise excessively unlikely that Germanic Style II animals can have found their way across the Irish Sea (unless Ireland was swayed more constantly by cultural developments in Britain than is usually acknowledged). Thus, since Oswald came from Bernicia and was later Lindisfarne's secular patron, Luce's 630 involves the Tyne-Tweed region no less than Bruce-Mitford's preferable 680 (op. cit., n.373).
376 T. D. Kendrick, in Antiquity, VI, 1932, 169.
377 Mme Henry writes (op. cit., n. 374, 9) of 'a tendency to believe that Celtic patterns have disappeared from Ireland at the time when they stopped being used in England'. The real question is begged by use of the word 'England', which (perhaps ingeniously) enables the pot to call the kettle black. The statement is rather worse than meaningless unless it is meant to imply that use of Celtic patterns stopped also in non-Roman Britain and its fringes at or about the same time, but the evasion - conscious or not - does at least indicate that this deeply respected scholar finds the evidence insufficient to support so sweeping a conclusion whatever her private opinion may be. Mme Henry goes on to say 'it seems obvious that . . curvilinear patterns which withstood the impact of classical themes in Roman England until well into the second century ad had an infinitely better chance of survival in Ireland. It is consequently very likely that no 'hiatus' ever existed in Ireland between late La Tène objects and the first enamelled penannular brooches...'Again, on p. 14,
having acknowledged Ireland's debt to Scotland and Wales, in the third century or slightly later, for 'already partly altered' types of objects such as the penannular brooch, she says of the curvilinear decorative method involving the use of compasses that it matters little whether 'the premiss of this method may have been stated elsewhere than in Ireland - on the continent or in Britain, perhaps in Wales or Cornwall', or that 'a few of the objects found in Ireland where it is applied may be importations'. 'The essential fact', it is asserted, 'is that in Ireland it survived, whilst it was gradually vanishing in England under the impact of classical art.' Why does this perceptive scholar always put the telescope to her blind eye when sweeping the large horizon of north Britain that, like Ireland, was never subject to Rome? [Addendum: paradoxically, since those words were written Nelson's Pillar in Dublin has been blown up in the cause of Irish nationalism.]
378 Inconclusive papers and archaeological discoveries have kept the fire of controversy alight since Leeds wrote the final chapters of his Celtic Art (Oxford, 1933); but still there is no evidence to throw clearer light on those obscure centuries, and it would be arrogant indeed to suggest that his view of them was an illusion.
The concept of an Irish Sea culture-province is so familiar and well established as hardly to require justification. It has long been recognized by students of earlier archaeological periods, and its validity in the relevant later context is upheld by the serious and impartial researches of L. Alcock in Wales (e.g., Dinas Poreys, Cardiff, 1963, the map given as Fig. 8). The distributions of sub-Roman and post-Roman wheelmade pottery studied and mapped first by C. A. R. Radford and later by C. Thomas (Medieval Archaeology, III, 1959, Figs 44 and 45, and later additions) do not allow the Irish Sea to have been a 'Dark Age' frontier. Mme Henry's own map (op. cit., n.374, x-xi) really concedes the point, for all that its author is only concerned to point out the range of what is conceived of as an Irish cultural empire. To explain the whole as the result of one-way traffic from west to east would be to surrender to fantasy.
380 Bede, $H E$, II, i, and III, iii.
381 Fursa, or Fursey, appears to have come out of Ireland (Bede, HE, III, 19) at the same time as Oswald returned from his northern exile. His monastery at Burgh Castle may have been founded a year or two earlier than Aidan's on Lindisfarne, but the interval is so slight as to be inconsiderable. More significant, perhaps, is the parallelism between East Anglia and Northumbria in the time of Sigebert and Oswald, as in the days of Raedwald and Edwin, and it may be that Fursa's mission-like Aidan's - was prompted or helped by Oswald's interest.
382 Mme Henry (op. cit., n.374, 6o) remarks that 'the decoration of the book is not very impressive', but points out the loss of what was 'no doubt a decorated first page' - no more in evidence than the carvings on vanished timber buildings. Enlarged details of relevant ornamented initial letters in the Cathach are given in her Pls 9 and $\mathbf{1 2}$. It is beyond dispute that the Cathach, a document of the first importance, is Irish; but the early dating (second half of the sixth century) argued by Lowe and Henry seems to be rather more rigidly severe than the evidence strictly warrants.

383 F. Henry, op. cit., n.375, 6r-5 and Pl. 58; v. also R. L. S. Bruce-Mitford, Codex Lindisfarnensis, II $3^{-15}$ and nn.
384 F. Henry, op. cit., n.375, $163-6$, Pls 53 and 61: R. L. S. Bruce-Mitford, loc. cit., n. 383 . In an important paper in Medieval Archaeology, II, 1958, 72-103, Haseloff points out (p. 85) the inventiveness of the A.II.Io illuminator, although concerned to distinguish specifically Irish contributions to the later development of Celtic art.
385 Indeed Mme Henry herself writes 'In Ireland as everywhere else, Christian art was in its beginning based on the existing art of the country' (op. cit., n.375, 203-4). Leaving aside the question of the Ninianic phase in north Britain, to which the same argument could apply, she suggests that Patrick and his companions (who 'had grown up in Roman environments') exercised the same judicious tolerance as is urged by Gregory in his letter to Mellitus (Bede, HE, I, 30), and thus allowed 'the old Celtic art' to survive. Mme Henry does not follow her argument to its logical conclusion. It would be arbitrary indeed to suggest that Aidan, with two such authoritative precedents behind him, followed a less enlightened policy in Bernicia. Thus the old art of Bernicia should have survived in the Early Christian milieu no less than the 'old Celtic art' of Ireland in the Patrician period.
386 See particularly R. L. S. Bruce-Mitford's survey of the insular background, Codex Lindisfarnensis, ro9-r2 and refs. Among the same author's writings on Sutton Hoo, the accounts given in Proc. Suffolk Inst. Arch., XXV, 1949, $60-72$, and as an appendix to R. H. Hodgkin, A History of the Anglo-Saxons, 3rd edn, Oxford, 1952, are particularly valuable. The Sutton Hoo Ship Burial, British Museum Guide, 1947, and C. Green, Sutton Hoo, Merlin Press, 1963 , conveniently illustrate most of the material.
387 Hall A4 marks Yeavering's closest approach to a Heorot. A2, with its raised platforms and its suggestion of a high seat or throne, can hardly have been a negligible structure in its time; but $\mathrm{A}_{4}$ seems designed to outstrip it in impressiveness. Did its door-keeper, buried in Grave AX, ward off a Cheviot Grendel?
388 F. Henry, Irish Art, $1965,13-14$ and refs.
389 E. T. Leeds, op. cit., n.378, 126-30.
$39^{\circ}$ The definitive treatment of this material by E. Burley (Mrs Fowler) in PSAS, LXXXIX, 1955-56, i $18-226$ is of the greatest importance, enhanced by the same writer's survey of fifth- and sixth-century Celtic metalwork, in $\mathcal{F}$ RAI, CXX, 1963, 98-160.
391 Op. cit., n. 378 .
392 In view of C. Thomas's two papers in $\mathcal{F R A I}$ (CXVIII for 1961 and CXX for 1963) the present writer has omitted a passage of argument that originally stood here, but two of its fundamental points may be noticed. First, when the earliest Pictish symbols appear on durable objects of stone and metal they are already fully evolved and there is a highly significant degree of uniformity over a very large area. Thus it would appear
that the earlier processes of evolution and diffusion are hidden from us because their vehicles were perishable materials - such as tattooed human skin (as Thomas suggests) or carved wood. Secondly, the code of 'symbols' clearly was significant, so that it must have been expressive either of identity or belief: the former is to be preferred, because the early forms are later allowed to stand cheek by jowl with Christian images, and accordingly the early symbolism must refer to the secular conventions of the Pictish society to which it is unique - but who can believe that the structure and codes of Pictish society were not firmly established before the end of the Roman Iron Age? Even if it is arbitrarily assumed that the Class I symbol-stones do not themselves cover a considerable period of time and are to be dated en bloc by what may be their latest examples (Stevenson, Problem of the Picts, 97 ff . would assign them all to the seventh and eighth centuries), the form of their Pictograms must be of greater antiquity. There are no such symbols in the early AngloSaxon world, nor in Roman Britain, nor in Ireland: the phenomenon is peculiar to north Britain, obviously the product of continuity rather than interruption, and its 'La Tène' aspect is probably authentic.
393 v. n. 379.
394 K. H. Jackson, The Oldest Irish Tradition: a Window on the Iron Age, Cambridge, 1964, esp. 55.
$395 v$. n. 379 ; and for acknowledgement of the no less relevant effects of Anglo-Saxon on Irish art, n. 400 .
396 G. Haseloff, op. cit., n.384, esp. 99.
397 J. Werner's study of the Langobards in Pannonia (Bayerische Akadamie der Wissenschaften, PhilosophischHistorische Klasse, Abhandlungen (Neue Folge) Heft 55A, Munich, 1962, suggests that something closely akin to Salin's Style II was already gaining ground in Europe in the second half of the sixth century, and Scandinavian art contains hints that Style I was a temporarily overwhelming offshoot from a main-stem that early produced proto- or pseudo-Style II growths. Repairs to the Sutton Hoo shield, which was already embellished with vigorous Style II ornaments, are said to show it was of some age when it was buried, and, whether the Sutton Hoo deposit was laid down c. 655 or $c .625$ (as has recently been argued numismatically), it is far more likely than not that some or all of the Sutton Hoo Style II objects were known to Raedwald.
398 Arising from n .257 is a possibility that Yeaveringstyle building was a Bernician variation on a theme widespread among the British aristocracy of the intramural region. The Irish may at some stage have adopted a similar form under influences from Britain, and the contrast between Yeavering-styles III and IV may be representative of divergence between British and Irish practice; but it would be grossly uneconomical to assume that the early halls at Doon Hill and Yeavering were not directly the more inspired by rectangular Romano-British buildings.
399 Bede, $H E$, III, xxvii.
400 Op. cit. n. 375, 171, 96-7.

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I. Old Yeavering, from N. Background, right: Yeavcring Bell, under shadow. Middleground: the Yeavering whaleback, its crest picked out by a linc of light. Foreground: River Glen, at left curving $S$. in its nearest approach to the whaleback, at which point it offers the most likely scene for the baptisms performed by Paulinus in Bede's account of the site

2. The Yeavering whaleback seen from S.E., with plough-lines converging on the firwood at its E. end. Wooler-Kirknewton road runs along near side of wood. The dark dot below the whalcback's S. flank is a standing-stonc, outside the natural limits of the site indicated in PI. 6

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3. Cropmarks on the Yeavering whaleback, seen from $W$.
(Air-photograph: 7. K. S. St Joseph)
4. Yeavering's eastern cropmarks, seen from N . Centre, the complex of major halls (Area A). Foreground, left, the $W$. side of the Great Enclosure, showing circular entrance-work (Area BC). The Eastern Ring-ditch (Area B) is seen within the angular curve of the Enclosure. Building $\mathrm{C}_{4}$ and S.E. corner of $\mathrm{C}_{3}$ (Area $C$, appear directly below aircraft's wing (Air-photograph: 7. K. S. St. Foseph)


5. The Yeavering whaleback from W., during excavation of Area A, showing soil-indications under optimum conditions. Cropmarks register recently excavated buildings, whereas other structures seen in Pl. 3 hardly appear. Various dark anomalies proved to be archaeologically misleading (esp. semblance of hall with two internal post-holes, close to firwood, found to be without foundation). 'To S. (right) of the modern road the still uninvestigated part of the site ( Pl .6 ) is defined by an extinct watercourse, shown in ragged cross-section by S.E. corner of quarry face
(Air-photograph: 7. K. S. St Joseph)

Plate 6

6. E. end of the Yeavcring whalcback, bisccted E.-W. by Wooler-Kirkncwton road. To N. of road, cropmarks of Great Enclosure. To S., the uninvestigated S. flank of the whaleback: showing cropmarks of square enclosure with internal structurcs, lying to $N$. of twin-palisaded enclosure containing small circular/elliptical enclosurc. Among other features visible are two minor halls similar to several excavated. V-shaped feature N.W. of square enclosure is possibly geological in crigin. No archaeological traces in lower land S. of extinct watercourse
(Air-photograph: 7. K. S. St Joseph)

9. Cropmarks at N.E. end of Milfield ridge, from N.; showing junction of twinpalisaded 'town-wall' with earlier, multipalisaded enclosure ('fort'). (See Fig. 7.) The original enclosure appears to have had outworks (right) of two or possibly three phases, predating the polygonal 'town-wall' (with which the rectangular 'minor hall' seen here is most probably to be associated)
(Air-photograph: 7. K. S. St Foseph)

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(Air-photograph: 7. K. S. St Joseph)

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12. Yeavering Bell: N. entrance of the oppidum, seen from S . The firwood at the E . limit of Yeavering's cropmarks is seen directly behind the staffman's head: the quar$r y$ at the W. end of the whaleback can be seen to the left
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15. Area A. Primary horizontal section seen at one moment of greatest archaeological revelation, during the process of drying-out after a shower of rain. The effect, as recorded, lasted for less than half an hour (see also Pls. 14 and i7)

16. Area A. Building $\Lambda_{I}$ (W. half; seen in primary horizontal section, from S. at ground level, after artificial spraving

17. Area A. Primary horizontal section seen at the moment of greatest resolution induced by a strongly drying wind following immediately after prolonged rain (see Pls. 14 and I5 and Figs. I3, I5 and I8)

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Plates 47-48
47. Area B. Inner foundationtrench of Great Enclosure in vertical section, seen from S.E.; showing basal slots for timbers, and vertical divisions of trench-filling (see Fig. 29)
48. Area B. The Eastern Ring-ditch Complex from W.: preparation of primary horizontal section for first stage of study. The nearer man stands near the middle of the Great Enclosurc's inner trench; the other, at its junction with the Ring-ditch. A line of 'string-graves' is seen with exceptional clarity at bottom right (cf. Pl. 13, and see Fig. 26)


49. Area B. The Eastern Ring-ditch Complex. Rang-ing-pole spans Pit BX, touching (left) the northern boundary of the Eastern Cemetery. Palisade $\mathrm{FP}_{4}$ near middle of left side of photograph; $\mathrm{FP}_{5}$, top left
50. Area B. 'The Eastern Ringditch Complex and Eastern Cemetery during dissection. Building $B$ at top right
51. Area B. Part of the Eastern Cemetery seen from N.E. The dark feature (with scattered boncs) at top left is the N.W. angle of Building $B$ 's W. annexe: the N.--S. element is seen partially in cross-section (see Fig. 26)
52. Area B. Building B and part of the Eastern Cemctery seen in primary horizontal scction from a point immediately E. of the building's S.E. corner. Large stones embedded in the foundationtrenches roughly outline the main section of the building (see Fig. 27)


53. Area B. Building B: S.W. corner of main chamber, seen from N.N.W. after removal of grave-fillings (see Fig. 27)

54. Arca B. Graves S. of Building B , seen from W . Middle of ranging-pole lics at foot of Grave $\mathrm{BZ}_{5} 6$ (see Figs. 27, 31 and 35)

Plates 55-56
55. Area C. Building Ci seen in primary horizontal section from S. The feature N. of the building's N.E. corner is a pit that contained Rinyo-Clactonian pottery. This photograph also demonstrates the destructive effects of recent ploughing. Background: the River Glen in its nearest approach to the whalcback (see Pl. I)
56. Area C. Building Cr: excavated, from W.; showing horizontal framework and fallen wall-timbers surviving as charcoal. Reserved block of soil at S.E. corner shows dark filling between the outside of the building's wall and the edge of its tank-like foundation (see Fig. 37)



57. Area C. Building $C_{I}$ from N.W.: closer view of fallen wall-timbers
58. Area C. Building Cir: S. wall. Foot-rule spans horizontal beam flanked internally by slot formed with paired planks on edge

Plates 59-60

59. Area C. Building C 2 : primary horizontal section from S . ; showing later ditch. Building CI in background, top left
60. Area C. Building C2: seen from S.W., at an advanced stage of excavation (see Fig. 38)



6r. Area C. Building Cz, S. doorway: W. jamb-pit secn from S.W. Indication of door-jamb at far sidc of foot-rulc
62. Area C. Building C2: N. wall seen from $\lambda$.; showing indications of walltimbers
63. Area C. Vertical section of later ditch cut across the site of Building C2

Plate 64

64. Area C . Building $\mathrm{C}_{3}$ seen in primary horizontal section from W .

65. Arca C. Building C3: S.E. corner from S.W.: wall-line visible in primary horizonta! scction (see Fig. 38)

66. Area C. Building C3: S. wall seen from E.; showing wall-line and differential filling of trench
67. Area C. Building C3; S.W. corner from W.; showing indications of corner- and wall-posts (see Fig. 38)
68. Area C. Building Ci3: seen from W. in coursc of excavation (area later extended)


69. Area C. Building $\mathrm{C}_{4}$ : primary horizontal section seen from S.W. Various dark patches in the trench-fillings represent repairs and rebuilding (see Fig. $3^{8}$ )

7o. Area C. Building $\mathrm{C}_{4}$ : E. wall seen from S.W.; showing traces of $\mathrm{C}_{4}$ (a)'s relatively heavy timbers (see Fig. 39)
71. Area C. Building C4: E. wall seen from N . under frost and snow; showing indications of thin planks of $\mathrm{C}_{4}(\mathrm{~b})$ (see Fig. 38)
72. Area C. Building $\mathrm{C}_{4}$ : W. wall seen from S . after snowfall. Intermission of walltrench marks position of W . doorway


73. Arca C. Building $\mathrm{C}_{4}$ : seen from W., in course of excavation (area later extended) (see Figs. $3^{8}$ and 39)
74. Area D. Building Dr: seen from S. in primary horizontal section (see Fig. 42) 'Palisade' dividing Di from $\mathrm{D}_{2}$ is visible in foreground
75. Arca D. Building Di: W. wall scen from S.; showing diffuse traces in trench-filling of the successive wall-lines of Dr (a) and $\mathrm{Dr}_{\mathrm{I}}(\mathrm{b})$. For resolved indications of $\mathrm{D}_{\mathrm{I}}(\mathrm{b})$ 's timbers at a lower levcl see Pl. 76
76. Area D. Building Dr: S.W. corner scen from S.W. Indications of wall-timbers of Dr (b) are visible in the W. wall-trench (at a lower level than that shown in Pl. 75)


77. Arca D. Building Dr: S. wall from S.E.; showing indications of wall-timbers of DI(b)

78. Area D. Building Dr: seen from $S$. at advanced stage of excavation (see Fig. 42)

Plates 79-80
79. Area D. Building D2: primary horizontal section seen from S.S.E. at optimum stage of drying-out after rain (see Fig. 43)
80. Area D. Building D2: E. wall-trenches of $\mathrm{D}_{2}(\mathrm{a})$ and $\mathrm{D}_{2}$ (b) (left and right respec.tively) seen from S.S.E. Footrulc stands to left of fused masses of burned daub in demolition-trough of $\mathrm{D}_{2}(\mathrm{~b})$ (See Fig. 44.) Smaller deposits removed from $\mathrm{D}_{2}(\mathrm{a})$ to expose section



8I. Area D. Building $\mathrm{D}_{2}$ : W. wall-trenches of $\mathrm{D}_{2}(\mathrm{a})$ and $\mathrm{D}_{2}(\mathrm{~b})$ (right and left, respectively). Ranging-pole lies along bed of $\mathrm{D}_{2}(\mathrm{a})$ 's trench. Foot-rule is set at right-angles to series of indications of $\mathrm{D}_{2}(\mathrm{~b})$ 's wall-timbers at a low level in the trench-filling

82. Area D. Building D2: W. walltrenches and N.W. corner seen from S.W. External buttress-pits of $\mathrm{D}_{2}(\mathrm{~b})$ are conspicuous in forcground (see Fig. 43)

Plates 83-84
83. Area D. Building D2: E. wall seen from W.; showing deposits of cattle-boncs, based on pit dug in filling of $\mathrm{D}_{2}(\mathrm{a})$ 's wall-trench and later collapsed into demolition-troughs (see Fig. 44)
84. Area D. Crouched burial in E. half of grave close to S.W. corner of Building $\mathrm{D}_{2}$ (see Fig. 43 and Pl. 85)


85. Area D. Detail of crouchcd burial near S.W. corner of Building D2 (see Pl. 84)
86. Area D. Building $\mathrm{D}_{3}$ : primary horizontal section from S.S.W., showing setting of boulders associated with post-demolition occupation of the wooden building's site (see Fig. 47)

Plates 87-88
87. Area D. Building D3: representative (N.-S.) vertical section. Ranging-pole stands on a worn patch of the primary clay floor, with filling of roof-post socket to right (see Fig. 48)
88. Area D . Buildings $\mathrm{D}_{5}$ (wide trenches) and D 6 (narrow trenches) seen in primary horizontal section, from S.W. (see Fig. 54)


89. Area D. Buildings $\mathrm{D}_{5}$ (wide trenches) and D6 (narrow trenches) from S.; showing opposed long-wall doorways of $D_{5}$ and $W$. end of the earlier D6. The effects of modern ploughing are especially in evidence in the W. half of $\mathrm{D}_{3}$ 's N . wall (see Fig. 54)

90. Area E. Building E: the wooden theatre, seen in primary horizontal section from W.N.W. Remains of scattered cairn visible to right of nearer ranging pole (see Fig. 55)

97. Area E. Building E: closer view of S. half from W.

92. Area E. Building E primary horizontal section from E. This structure was built in at hollow, and the lack of tonal contrast herc is due to the survival of ancient superficial deposits

93. Area E. Building E: 'Trench I seen in secondary horizontal section from S.W. ; showing continuity of slot representative of demolished wooden wall
94. Area E. Building E: Trench 4 seen from $S$. in secondary horizontal section; showing continuous, stonefilled slot left by removal of timber wall

95. Area E. Building E: Trench 3: longitudinal section of stone-filled wall-slot

96. Area E. Building E: transverse vertical section of Trench 8 from S.; showing differential layering of the original packing-soil on either side of the wall-slot, which is stone-filled from collapse of superficial deposits into void left by extraction of timberwork (thus demonstrating the continuity of the wooden wall the trench was dug to hold)

97. Area E. Building E.: S. end of Trench I, showing indications of wall-line and terminal post at a low level

98. Arca E. Building E: tumbled remains of small cairn partly overlying Trench 8, scen after removal of severai boulders. Forward of the footrule is a pocket of black soil, on the surface of which can be scen scraps of cremated bone: accepted doultfully at first as a man-made feature, this little pit may have been burrowed by a mole that had tunnclled through a more extensive, overlying cremationdeposit close by. Fragments of cremated bone and charcoal occurred throughout the surrounding stone scatter

## Plates 99-100

99. Arca E. Building E.: general view from W . after snowfall, at penultimate stage of excavation. Forcground right, stone scatter surviving on patch of ancient ground surface (the stones on the right merge with the packing of the buttress-pit N. of Building E.'s axial radius: those on the left cover crema-tion-burial 26, shown in Fig. 55 as Bronze-age Pit II/55)
100. Area E. Building E. seen from N.W. before final removal of master-section


ror. Area E. Building E: Trenches 6 and 7 seen from $N$. Foot-rule spans original sur-face-dcposits through which the trenches werc cut. Note indications of wall-timbers on bed of Trench 7 (right)

101. Area E. Building E: Trench 6 seen from N. : showing wall-slot in vertical section and indications of walltimbers on bed of trench
102. Area E. Building E : northernmost of series of butt-ress-pits $W$. of main structure, seen in E.-W. section from $N$. after removal of two large packing-stones; demonstrating the inclination of the buttress-post towards the back of the 'theatre'
103. Area E. Building E: focal structures at E. end seen from W. Forcground:scrics of postholes interpreted as remains of platform, with retainers of step on W. side. Ranging-pole lies in front of pit that supported Post E. Background: part of semi-circular setting of post-holes (see Fig. 55)


104. Model hypothetically reconstructing main features of Building A4, showing E. end

io6. Model hypothetically reconstructing main features of Building A4, showing W. end. This is the simplest possible interpretation: the likelihood that there were transeptal $工$. and S . porches has been deliberately ignorcd, as also the distinct possibility of external plastering and carving

105. The model shown in Pls. 105 and 106 dissected to demonstrate the relationship betwcen the known features, as seen surviving in the ground, and their above-ground implications. Needless to say, the internal bracings are not to be taken very seriously; and the cuts through essential tic-beams reflect merely the model's demonstrative purpose
106. Reconstruction model showing Ad Gefrin as it might have appeared to Penda and Cadwallon had they attacked Edwin's township from the air



rog. Pot XAS: external view of main fragment above, internal view below. Scale approx. $\frac{1}{2}$ (see Fig. 84)


1ro. Cremation-burial 19. (A) Holed base of urn as revealed by removal of overlying clay sealing-layer (B) Collared urn exposed by removal of black packing-soil (see Figs. I 16 and 117)
(A)
(B)
(A) Obverse and (B) reverse of gold-washed imitation of Merovingian coin (Gi, p. 182). Scale: $\frac{5}{1}$.
(c) Gold filigree washer (G2, p. 183). Scaie: $\frac{1}{1}$.

(c)



[^0]:    Note: The east-west ditch shown in Fig. 4I (the 'Black Ditch') probably has some relevance to Building D2; but as it seems to have been more directly connected with activities centred on $\mathrm{D}_{3}$ it is described in the following section, under (2).

[^1]:    * Jewell, P., Man and Cattle Symposium, R. A. I., 1963.

