Fig. 1. The Mouth of the Tyne

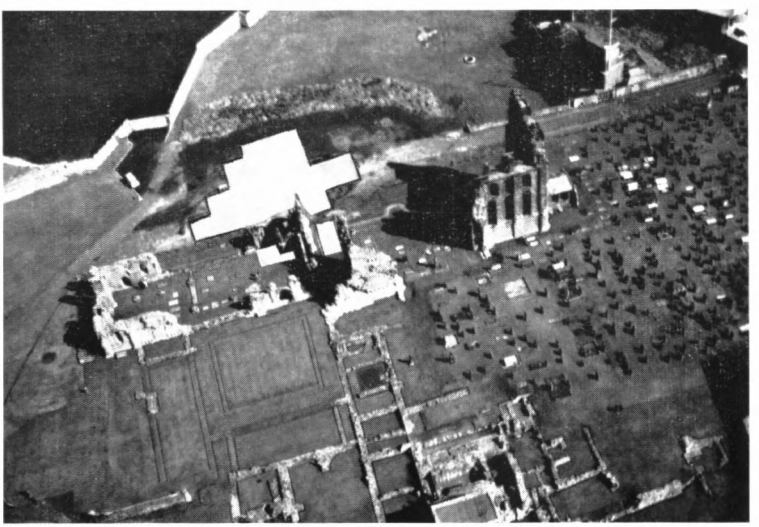


Fig. 2. Priory: Approximate area of excavation in white
Air Photos: N. McCord, University of Newcastle upon Tyne

IV.—EXCAVATION AT TYNEMOUTH PRIORY AND CASTLE

George Jobey

The excavation took place during the cruel winter months of 1963 when, as part of a much larger effort to relieve temporary unemployment in north-east England, some minor works were undertaken on monuments within the custody of the Ministry of Public Buildings and Works. In brief, the excavation yielded evidence for early timber buildings consistent with both Iron Age and native settlement of the Roman period. There were also later timber buildings, one of them, with a semi-circular west end, being earlier than the Norman church and conceivably designed for some religious purpose. Others, rectangular in shape, were again of somewhat uncertain context and function but were almost certainly earlier than the Norman foundations. Post-conquest monastic buildings included a sacristy, probably of fourteenth-century date, a priest's house, and a byre. Finally, there were some post-Suppression buildings, one of them associated with later military occupation of the site. A note has also been added on the Tudor fortifications at the so-called Spanish Battery (Appendix A) and Miss Rosemary Cramp, in discussing a newly found sculptured stone from this site, reconsiders the pre-Conquest stones already recorded from Tynemouth (Appendix B).

I am indebted to Mr. R. Gilyard Beer for many kindnesses, to the undermentioned contributors of various additional reports, and to Mr. M. Preston for his co-operation with the surveying. Much valuable assistance was given from time to time by students from the Department of Adult Education in the University of Newcastle upon Tyne.

THE SITE (plate IV, 1)

The bold and precipitous headland which carries Tynemouth priory and castle forms a natural bastion on the north side of the approaches to the River Tyne (NZ: 374695). Full accounts of the history and traditions relating to the monuments are contained in *The Monastery at Tynemouth*, vols. I and II (1946), by W. S. Gibson and in *The History of Northumberland*, vol. VIII (1907), by H. H. E. Craster. Excavations by W. H. Knowles in 1904/5[1] and subsequent studies by Craster and R. N. Hadcock[2] did much to elucidate the history of the post-Conquest structural remains and, at that time, no pre-Conquest buildings had been discovered.

Centuries of military occupation on the headland came to an end in 1960 with the dismantling of modern coastal batteries and barrack accommodation, although the Coast-Guard service continues to take advantage of a situation which affords a most extensive coastal prospect.

EXCAVATION (plate IV, 2)

The mandate for the most recent excavation was to examine any remains that might be revealed during the process of lowering the level of a modern road on the north side of the priory church. In places the road surface was some six feet above the level of the extant foundations of the church wall. Military buildings on the north side of the road had already been razed, reportedly down to bed-rock, except for the lower courses of the south wall of the barrack accommodation known latterly as "B" Block.[3]

Excavations were carried out on a grid pattern, so far as conditions allowed, and baulks were eventually removed with

[1] *Arch. J.*, LXVII (1940), 1 ff.
[2] *A.A.*[4], XIII (1936), 30 ff; XIV (1937), 205 ff.
[3] The two centre plates in *Tynemouth Priory and Castle* (H.M.S.O. 1952) illustrate the situation before demolition of the buildings.

Fig. 1. Entrance Circular House beneath Sacristy

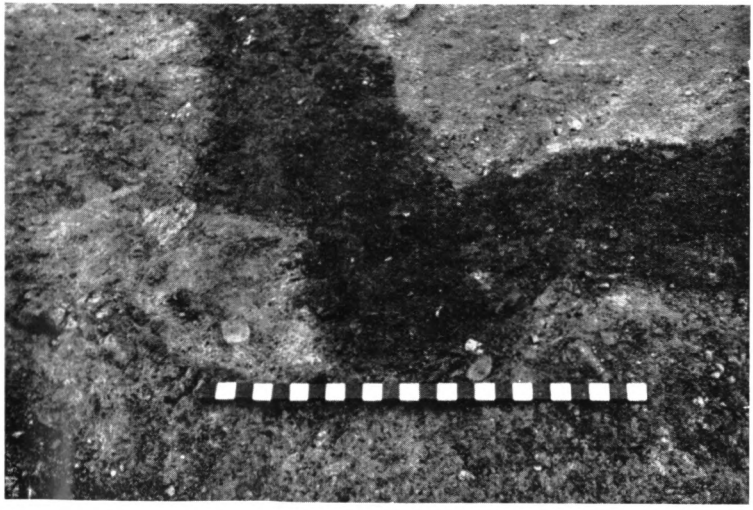


Fig. 2. South-west corner, building 2

Fig. 1. South-west corner, timber building 2

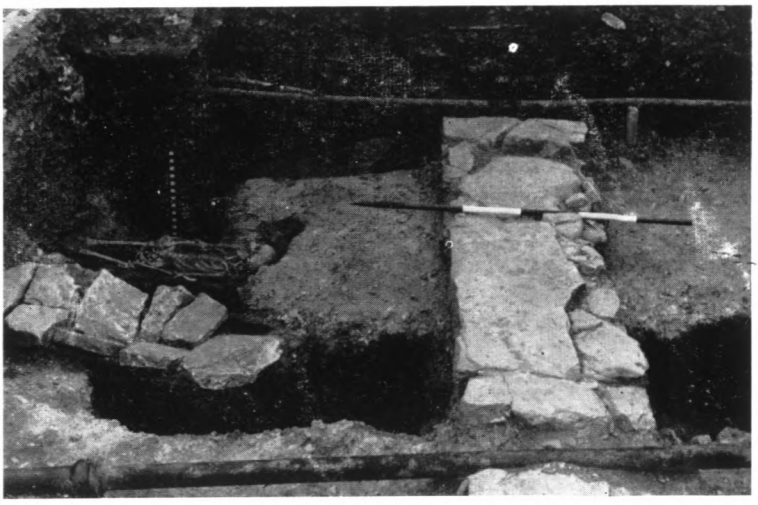


Fig. 2. North-east corner, timber building 4

the exception of one of them which ran from east to west, hard up against a modern sewer trench. The underlying rock hereabouts is magnesium limestone, in places reduced to the consistency of fine sand where natural faults occur. As much as six inches of red brown soil, typical of such limestone areas, had at one time overlain the rock, but large expanses of this had been disturbed or completely removed by the post-Conquest builders. Consequently, by and large, traces of early timber structures were only visible at rock level. To describe the extensive disturbance caused by recent military occupation, including the installation of normal services, would be tedious; therefore, indications of such are confined to the various plans.

So far as is possible, the structures encountered in excavation are described and discussed in chronological sequence, commencing with the earliest.

IRON AGE/ROMANO-BRITISH OCCUPATION (figs. 1 & 2)

(a) *Circular Timber-Built House* (fig. 1, plate V, 1)

The earliest definable structure had been a large timber-built house, thirty-eight feet in internal diameter. Its solid outside wall of close set uprights had been supported in a trench, dug into the rock or sand according to variations in the nature of the underlying material. This wall-trench was up to eighteen inches wide and the same in depth from rock level, but allowance must be made for the fact that the original soil overlying bed-rock had been subsequently disturbed, thereby not lending itself to the detection of construction trenches at a higher level. The northern arc of the house had been removed by the pit of a later medieval lime-kiln and, where the rock surface had been levelled for the floor of a medieval byre, no more than the impressions of post-placings survived. The doorway lay in the south where, beneath the remains of a medieval mortar mixing floor, the wall-trench terminated on the east side in a large post-hole.

Unfortunately, the west side of the doorway had been removed by a modern sewer trench and inspection shaft. Intermittent and shallow post-holes, concentrically placed at a distance of two feet beyond the wall-trench, are best seen as supports for eaves-posts, giving the house an overall diameter of forty-six feet. By analogy with some other plans of Early Iron Age houses, such as those at West Brandon,[4] Durham, a porch could have provided head-room and shelter at the doorway, but confirmation of this was denied by later disturbance. For the same reason it also proved impossible to determine a full complement of post-holes for internal roof supports.

No clearly defined internal occupation level remained in association with the house. For a foot or so on the western arc of the wall-trench patches of burnt oak were found amongst the packing of limestone fragments, as if two or three timbers had burnt in position at some stage. Included in the soil overlying the burnt wood and dipping into the top fill of the trench at this point was part of a bowl of late second century date. A fragment of Samian ware was also recovered from the soil overlying the top of the trench where it ran beneath the medieval priest's house. It is possible therefore, although not certain, that the house had fallen into disuse before this pottery had been deposited. Certainly there are good structural parallels for this version of the Little Woodbury[5] type of house to be found on pre-Roman Iron Age settlements both in this area and elsewhere.

(b) *Small Circular Hut* (fig. 1)

A short distance to the south-east of the large house was the incomplete outline of a small hut in the form of a shallow "ring-groove", at most twelve inches wide and six inches deep, again cut into the rock surface. There were no post impressions visible in the trench. Its perimeter was interrupted by a later construction trench for a timber rectangular

[4] *A.A.*[4], XL (1962), 11 ff.
[5] *P.P.S.*, VI (1940), 30 ff; XXX (1964), 102.

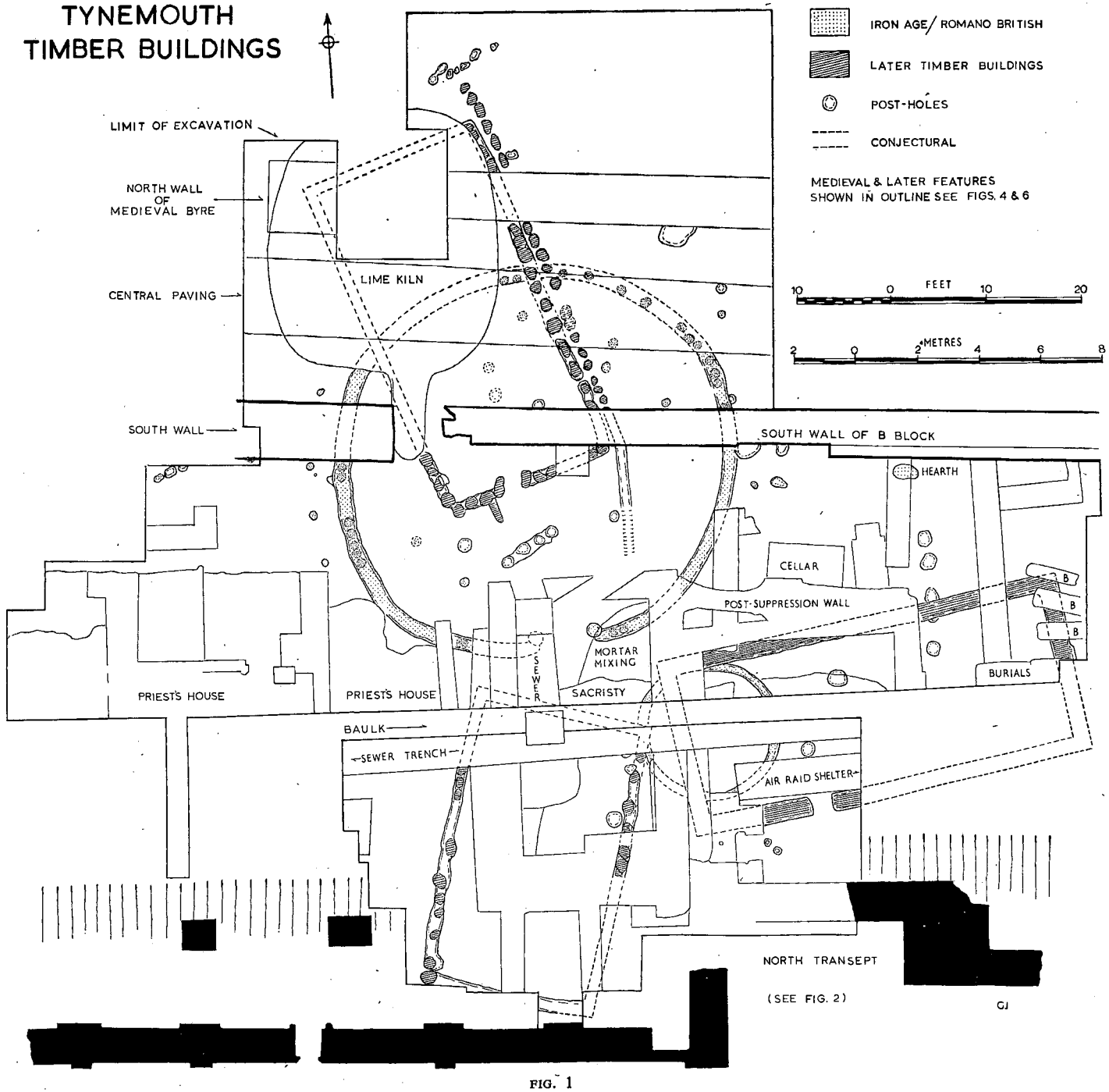

TYNEMOUTH
TIMBER BUILDINGS
IRON AGE/ ROMANO BRITISH
LATER TIMBER BUILDINGS
POST-HOLES
CONJECTURAL
MEDIEVAL & LATER FEATURES
SHOWN IN OUTLINE SEE FIGS. 4 & 6
10 0 FEET 10 20
2 0 METRES 2 4 6 8
LIMIT OF EXCAVATION
NORTH WALL OF MEDIEVAL BYRE
CENTRAL PAVING
LIME KILN
SOUTH WALL
SOUTH WALL OF B BLOCK
HEARTH
CELLAR
POST-SUPPRESSION WALL
B
B
B
MORTAR MIXING
SEWER
BURIALS
PRIEST'S HOUSE
PRIEST'S HOUSE
SACRISTY
BAULK
SEWER TRENCH
AIR RAID SHELTER
NORTH TRANSEPT
(SEE FIG. 2)
GJ

FIG. 1

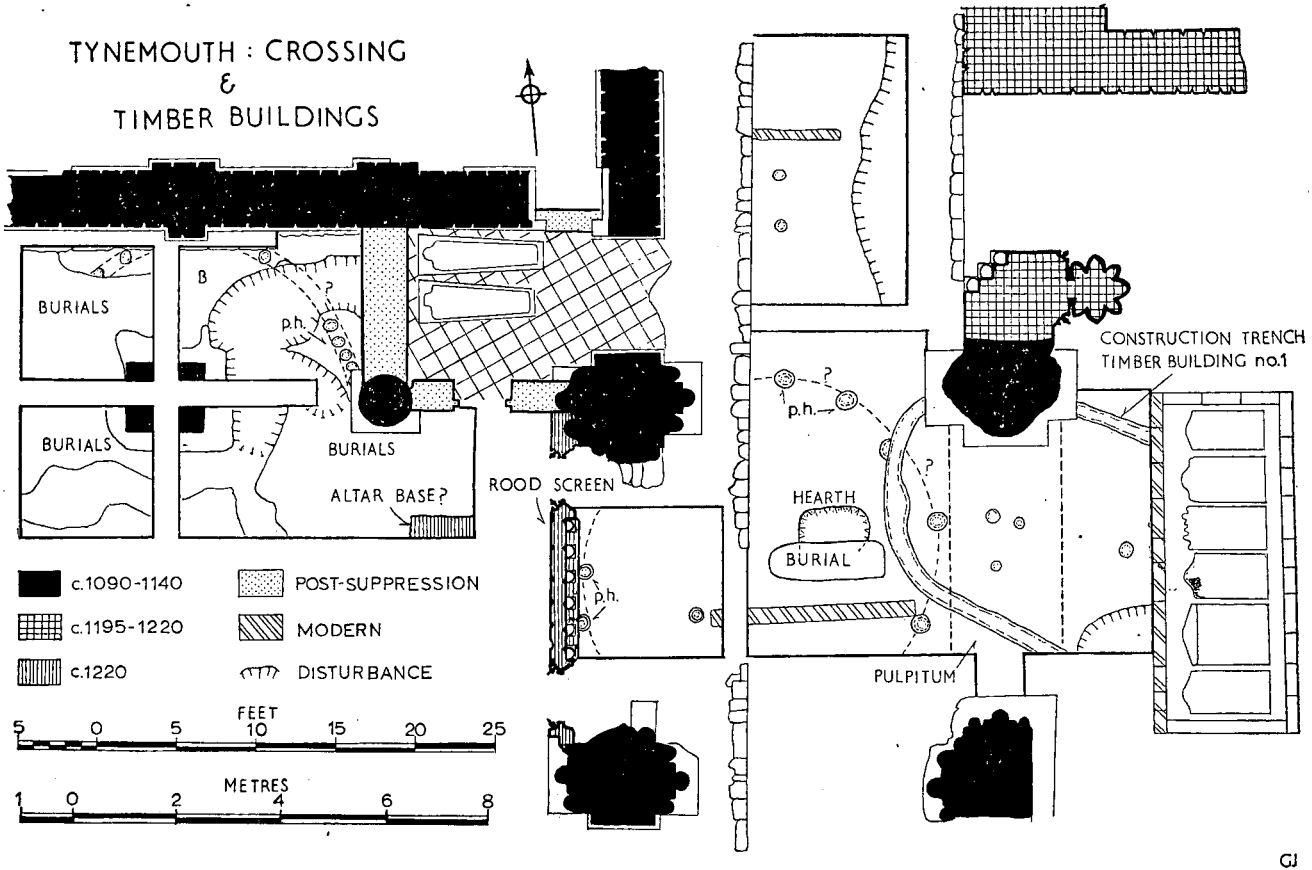


FIG. 2. POST-HOLES AND TIMBER BUILDING I

building, by the west wall of the medieval sacristy, by a modern sewer trench and by a deep air-raid shelter. Even so, the internal diameter of the hut can be estimated as having been in the order of fifteen feet.

Such a juxtaposition of large and small structures is not unknown in timber-built settlements of the pre-Roman Iron Age in the area,[6] but the diameter of the hut would be unusually small in such a context. Moreover, if allowance is made for the missing eaves-posts of the large house at this point, the two structures were perhaps uncomfortably close to one another to allow of contemporary use. Most of the soil overlying bed-rock had been disturbed in later times and, once again, no occupation level could be related with certainty to the hut. On the other hand it may be significant that the maximum concentration of Romano-British pottery occurred hereabouts. Subsequent removal of a short section of an overlying medieval pathway, lying within the perimeter of the hut and close to the east to west baulk, disclosed a thin occupation spread, apparently undisturbed, lying a few inches above rock level (section, fig. 5). This contained a rim-sherd of late second-century pottery in addition to flecks of charcoal, slivers of mussel shells, and winkle shells. If this limited occupation spread were to be associated with the hut, then the small diameter "ring-groove" could have parallels in a Romano-British context, the nearest at Marden,[7] no more than a mile distant from the present site. In the case of the Marden native settlement the "ring-groove" of similar proportions was compared with the trenches sometimes found within stone walled huts of Roman date elsewhere in the area.

(c) *Other Early Features*

Few of the scattered individual post-holes, showing only in bed-rock over the excavated area, could be placed in a firm context; nor did they give an unequivocal structural picture when considered in series. However, the possibility of addi-

[6] *A.A.*[4], XLIV (1966), 10. [7] *A.A.*[4], XLI (1963), 22 ff.

tional circular structures may be seen in the series of post-holes lying within the crossing of the church and, less clearly, in what little undisturbed rock surface remained within the north aisle (fig. 2). Within the tentative perimeter of the former lay a rock-cut hearth, partly removed by a later, medieval burial, but containing a fragment of burnt Samian ware.

A second hearth was located partly beneath a post-Suppression wall to the east of the large circular house (fig. 1). Again it consisted of no more than a shallow rock-cut pit, some twenty inches in diameter, filled with charcoal flecked soil and large fire-cracked pebbles. From amongst the pebbles came a few sherds from a large native storage or cooking vessel, of a type familiar in pre-Roman and Roman Iron Age contexts in the northern area, together with some burnt limpet and winkle shells. In disturbed soil close to the hearth, and therefore not certainly associated, were a sherd of second century coarse ware, animal bone from kitchen refuse and a bone spoon. The latter at least would have served as convenient instruments for dealing with limpets.

(d) *Discussion*

There were no finds indicative of any permanent occupation before the Early Iron Age. Although a native settlement of the Roman period is hardly in doubt, clearly a larger area would need to be excavated to resolve the suggestion that the large house and then the hut belonged respectively to the Early Iron Age and Roman periods. Certainly the native pottery does not allow a clear distinction to be made. The position of the structures relative to the habitable area of the headland can be taken to imply that they form merely part of a larger settlement or settlements yet to be uncovered. Should the large house belong to the pre-Roman Iron Age then, by analogy, it is conceivable that palisades or ditched defences, or even both in sequence, may have cut off the neck of the peninsula further to the west of the present excava-

tions. It is a situation well suited to defence. On the precipitous north face of the headland wide fissures, seemingly natural, are visible and would require little adaptation for such a purpose, whilst on the south there is a deep "gully", recorded in earlier excavations beneath the monastic buildings to the south-west of the frater.[8] Whereas the majority of the known palisaded and defended settlements of the Iron Age in Northumberland lie in the uplands of the interior,[9] the potentials of marine cliffs are not to be neglected, as the defended site at Earn's Heugh[10] in nearby Berwickshire so readily reminds us. There is some evidence also for settlement of the Early Iron Age on the rock at Bamburgh[11] and the promontory at Dunstanburgh,[12] there in a situation strikingly similar to that at Tynemouth.

Subsequent native occupation in the Roman period could almost be anticipated in the form suggested; it merely repeats the later pattern observable on many Iron Age sites in the Tyne-Forth area and adds to the rash of Romano-British settlements now known to spread from the interior of Northumberland[13] onto the coastal plain.

Seaborne traffic clearly existed between the major ports of entry to the Roman military installations of the northern frontiers; and it is not altogether impossible that some of the wares acquired by the Tynemouth settlement reflect this trade, although the precise implications of the distribution of the types has yet to be worked out (page 69 below). Less tangible is the evidence for smaller craft "creeping from one small harbour to the next" along the coast.[14] Perhaps the nearby natural haven, Prior's Haven, did have some small part to play in the economy of the native settlement perched

[8] *A.A.*[4], XIV (1937), 221.
[9] *A.A.*[4], XLIII (1965), 56.
[10] *P.S.A.S.*, LXVI (1931-2), 152.
[11] *Durham University Gazette*, VIII, No. 2.
[12] *A.A.*[4], XIII (1936), 279 ff. Unfortunately the native pottery with "finger-tip impressions" (? Iron A) is no longer in the collection as returned to the Blackgate Museum.
[13] *Rural Settlement in Roman Britain* (C.B.A. Research Report 1966), 1 ff.
[14] *A.A.*[4], XXVII (1949), 1 ff.

above it—a situation again reminiscent of Dunstanburgh. The seashore at least provided its quota of limpets, mussels and winkles, although the oysters preferred by the military at South Shields were apparently absent at this stage. The further economy of the settlement is equally sketchy but bones of sheep and pig were present.

The late Antonine pottery from the site forms a homogeneous group and, from the present excavations, there would seem to be no earlier and no later Roman pieces. Nor do finds from earlier excavations alter the picture. The well known Roman inscribed stones, found on the north side of the church in the eighteenth century, were re-used as building material in medieval or later buildings and are happily explained as probably having come from Wallsend.[15] Smaller recorded finds, comprising a tile inscribed LEG VI V and single coins of Constantius II and Magnentius, were of uncertain association.[16] The present excavations have yielded no structural evidence of Roman military occupation on the headland which, though in full view of the fort at South Shields and allowing extensive marine prospects,[17] is tactically isolated. The timber rectangular shaped buildings about to be described would not, on structural considerations alone, fit into such a context.

The preponderance of Antonine pottery amongst the small sample of material from native settlements in south and south-east Northumberland is perhaps to be expected in the light of frontier history, and the scarcity or absence of later material need not at the moment imply abandonment, transference of population, or even a drift to expanding extra mural settlements on the third-century frontier.

[15] *R.I.B.*, I, Nos. 1300 and 1305.

[16] *History of Northumberland*, VIII, 36. The coin of Constantius II and the tile were recovered when the present "moat" was dug in front of the Castle in 1856. The jug/flagon illustrated in *Lap. Sept.* (1875), 171, as "from Tynemouth", is of uncertain context.

[17] When the old Villiers lighthouse still stood, as far as Huntcliffe Nab on the Yorkshire coast *v.* Tomlinson, *Guide to Northumberland*, 50.

Timber Rectangular Shaped Buildings (fig. 1 & 2, plates V-VIII

The buildings numbered 2, 3 and 4 below were found on the north side of the priory church during the winter of 1963. In an attempt to solve some of the problems posed by the timber buildings as a whole, limited excavation in the nave and crossing was permitted during the early spring of the following year. This yielded part of another timber building numbered 1 below. The buildings are described in their numbered order without prejudice to ultimate context or relationship one to another, which is at present uncertain.

(a) *Building 1* (fig. 2)

This building was situated in the crossing of the church, twenty feet to the east of the early thirteenth-century rood screen. It was partly overlaid by the foundations of one of the Norman piers and by a heavy rubble base which is assumed to have carried the later pulpitum, built after the church was extended to the east at the close of the twelfth or during the early thirteenth century. No floor level to the church remained in this area and there was much recent disturbance, in places down to and below bed-rock. A shallow groove, nine inches wide and at most six inches deep, showing in bed-rock or sand, marked the outline of the building. Since some levelling of the surface had almost certainly taken place when the eastern extension to the church was projected,[18] it is probable that the original dimensions of this groove would have been those of a construction trench to support timber uprights. The building was aligned roughly ESE-WNW, and had fairly straight sides on the north and south and a semicircular west end. The form of the east end must remain unknown, having been cut away by a late nineteenth-century burial vault. Its internal width was fourteen feet and its length, whilst it could not have been less than this, was probably greater. None of the shallow post-holes in the area could be related with any certainty to the struc-

[18] cf. *A.A.*[4], XIV (1937), 70.

ture and, bearing in mind the usual disturbed conditions, some at least need have been no more than sockets for medieval scaffolding. With no associated occupation level and no datable finds from the construction trench, little can be said about a positive date for the building, except that it was earlier than the Norman church built between *c.* 1090 and 1130.

(b) *Building 2* (fig. 1, plates V, 2 & VI, 1)

This building was situated mainly beneath the site of the medieval byre or the modern "B" Block and was aligned approximately SSE-NNW. Irregularly formed trenches showed the remains of post-impressions from close set uprights of timber walls. No daub was recovered from the area. The internal width of the building was seventeen feet and its length had most probably been in the order of thirty feet. A narrow doorway, with a shallow trench for a shelter screen on its west side, lay off centre in the south wall. Four close set post-holes, placed five and a half feet beyond the doorway, were aligned with this wall and could have formed part of a porch, but the association is not certain. No internal post-holes were clearly related to the building and any floor level had been cleared off or completely disturbed in later times. The irregular form of individual post-holes is best seen as having arisen from the drawing of timbers during systematic dismantling of the building.

The building was taken to be later than the large Iron Age type dwelling and was manifestly earlier than a post-Conquest lime-kiln, itself earlier than the medieval byre. Two conjoining sherds of late second century Roman coarse ware were recovered from the bottom packing of two of the post-holes to the east of the doorway, in a position which marked them as relics from a previous occupation. Sherds of medieval pottery were found in the disturbed area immediately to the south of the wall of "B" Block but their association was quite obscure.

(c) *Building 3* (fig. 1, plate VIII)

Building 3 was located beneath the sacristy and, although on a slightly different alignment, was essentially of similar construction and probable size to building 2. Its internal width was seventeen feet and its length, though uncertain, must have been between twenty-six and thirty-one feet. The outline of the structure was traced beneath the floor of the sacristy and later foundations, but its south-east corner had been removed in a subsequent lowering of the rock surface, made before the deposition of a cache of medieval glass (p. 54 below). The irregularity in form of some of the remaining post-impressions once again pointed to the probability of systematic dismantling.

The structure was clearly earlier than the sacristy for which a fourteenth-century date will be proposed. Sufficient of its south end was traced to show that it did not impinge upon the Norman foundations of the church but, because of extreme frosts at the time of excavation, it seemed inadvisable to expose the full length of these foundations which support an upstanding wall. A fragment of twelfth/thirteenth-century pottery was recovered from the levelling material beneath the sacristy floor, but is not to be associated with the timber building for which no occupation level remained. An undecorated sherd of Samian ware, well sealed in the packing of the wall trench, gave a general *terminus post quem* for the building similar to that for building 2.

(d) *Fence Line* (fig. 1)

An almost continuous series of post-impressions ran adjacent to the east wall of building 2 and stretched from the northern edge of the excavated area until disappearing beneath the south wall of the medieval byre or "B" Block. Initially it was thought that they might represent a replacement of the timber wall of building 2, but subsequently they were found to continue in a slightly changed direction beyond the south wall of the byre, before final obliteration in later

disturbance caused by the building of the medieval sacristy. They are probably best seen as the remains of an enclosure or boundary fence which, if its line were to be projected, would have continued towards the north-east corner of building 3 or the north-west corner of building 4. The alignment of this fence can hardly have been fortuitous and must somehow have been related to the timber rectangular buildings.

(e) *Building 4* (fig. 1, plate VI, 2 & VII, 1)

Whether or not the fence line had been intended to serve as a boundary between buildings 2 and 3 on the one hand and 4 on the other is, in the circumstances, problematical. Certainly building 4 which lay to the east of 2 was differently constructed, having had trenches for substantial sill-beams. Any attempt to uncover its south-east corner would have been abortive in view of later burials, recent sewer trenches, and the estimated position of a deep air-raid shelter, whilst its west end was overlaid by later buildings. Its internal width was sixteen feet and its length, aligned approximately east and west, must have been in the order of thirty-nine feet. At least one off-centre doorway had probably existed in its south side where a short stretch of rock remained undug. The sides of the trenches were ragged and the upper reaches appeared to have been back filled, perhaps once again an indication of the removal of the beams on the disuse of the building.

This building was demonstrably later than the small Romano-British hut at the point of their intersection, but earlier than the medieval pathways and sacristy yet to be described. Two fragments of late second-century pottery were found in the packing of limestone fragments and soil used to level the bottom of the trenches as bedding for the beams. These sherds had doubtless belonged to the earlier occupation and had been introduced in material scraped up at the time of the construction of the building. Once again no floor level remained, the soil above bed-rock in this area having been disturbed subsequently. It contained some

well scattered masons' chippings and a small fragment of post-Conquest pottery which, on present knowledge, is not closely datable. Small finds from the mixed earth fill above this, although they included a *styca* of Ethelred II of Northumbria (A.D. 841-844), have little bearing on deciding the context of the building, since clearly this material was introduced over the whole area in order to level up for the floor of a post-Suppression building (p. 66 below and section, fig. 5).

(f) *Discussion*

These timber buildings are in many respects the most interesting to emerge from the excavation, yet they provide the greatest difficulties in interpretation because of the lack of associated finds. Buildings 2, 3 and 4 would all appear to be later in date than the second century A.D. The close proximity of building 3 to the north wall of the church almost certainly calls for its priority relative to the Norman building. If these three timber buildings, despite some differences in construction, are taken to be a synchronous group as suggested, then they may all pre-date the end of the eleventh century, although by what margin would be uncertain. Building 1 is assuredly earlier than the Norman church, even if its relationship to the other timber buildings is not clear. The context of the buildings may be narrowed down tentatively a little further in that, hereabouts, they would be difficult to parallel structurally in a later Roman setting, either military or native.

So far as the total finds from the excavation are concerned they give little help in choosing a context within the remaining limits. Indeed, there is only one strictly datable find which falls between the end of the second century and the eleventh century, namely the ninth century *styca* already mentioned, and this from a provenance which prevents any direct association with the timber buildings. Nor do the earlier recorded finds from Tynemouth give any real direction, although the sculptured stones, provenanced or un-

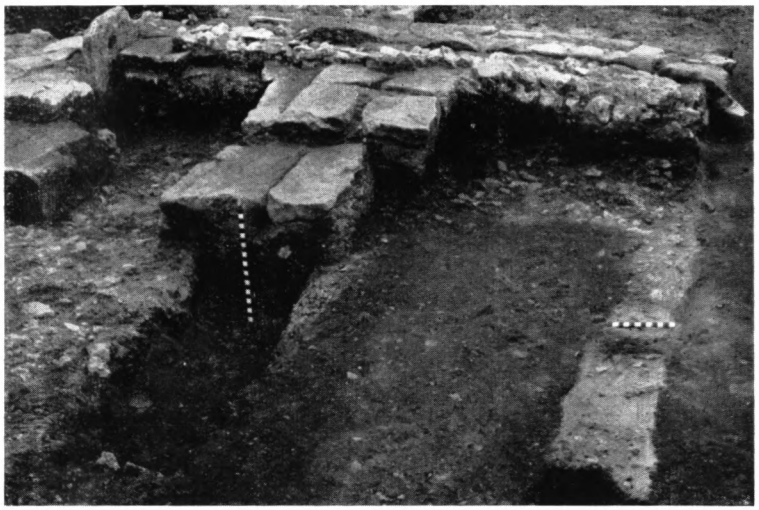


Fig. 1. Timber building 4, east of Sacristy

Fig. 2. Byre

Composite photograph: Sacristy and later blocking wall, also post-holes of timber building 3

provenanced, may take us back as far as the ninth century (Appendix B).

The early history and traditions relating to the site, for which full references are given by Craster in the *History of Northumberland*, vol. VIII, provide little concrete assistance. Very briefly they are as follows. The only reference to a timber-built church is that made in a much later claim for priority for Tynemouth, with Edwin as its founder and Oswald responsible for a replacement in stone. This doubtful attribution would seem to be discounted by Bede's statement that there was no altar in Bernicia until Oswald set up the standard of the Holy Cross at Heavenfield (A.D. 635). The reported burial of St. Oswin at Tynemouth, after his murder at Gilling in Yorkshire in A.D. 651, which would imply a religious foundation of some sort, is solely dependent upon the two variant traditions of the finding of his body in *c.* A.D. 1065. Even so, it has been generally assumed that a monastery existed in the eighth century and that it was here that Bede's friend Herebald was abbot. Certainly Osred is recorded as having been buried at Tynemouth in A.D. 792. The claim sometimes made that a temporary "Danish" stronghold was established on the headland, during the incursions of the ninth century, need not concern us here in that it has no foundation in the record. The church standing in the mid-eleventh century was undoubtedly of stone.

The position and unusual, if incomplete, form of building 1 may prompt thoughts of a chapel or church at some early stage. In this connection, however, it should be stated that the graves uncovered in the present excavations, with the possible exception of the single burial in the Norman crossing, are almost certainly all of later medieval date and do not form part of an early cemetery. Structural parallels for the building would also be difficult to find at the moment. The timber chapels recently excavated at Church Island,[19] Kerry and Ardwall Isle,[20] Kirkcudbrightshire, maybe built

[19] *Proc. Royal Irish Acad.*, 59 C 2 (1958), 57 ff.
[20] I am indebted to Mr. C. Thomas for duplicated preliminary reports.

after the Irish fashion, hardly provide convenient comparisons. Moreover, it is a long shot to assume a symmetrical form for the Tynemouth building in order to compare it with the plan of the more substantially constructed oval " chapels " or tenth- or early eleventh-century date at Winchester.[21] Until more evidence is available at Tynemouth, one can only be mindful of Bede's references to timber chapels or churches in Northumbria in the seventh century,[22] whatever may be the implications of the statement about Heavenfield as already mentioned.

It might also be possible to draw some broad structural parallels for buildings 2, 3 and 4 with some of the smaller buildings at Yeavering, as they are at present recorded,[23] but these would lack conviction bearing in mind the absence of datable finds. And there are other possible considerations. The location of these structures on the north side of the Norman church, together with the evidence for subsequent dismantling, could point to foundations of a temporary character connected with the post-Conquest monastery, or even to no more than the workshops or dwellings of the workmen engaged on its construction.[24] The masons' chippings from the area of building 4, although in disturbed soil, could have a bearing in such a context.

It will be clear from the plans that the extent of the timber structures as a whole is almost certainly greater than the comparatively small area of this excavation, and it may be that a more extensive programme would help to solve the problems presented by these buildings. For various reasons, however, some areas would most probably prove to be unfruitful, including the present presbytery, the nave, and the major part of the cloisters. The south transept on the other

[21] *Ant. J.*, XLV (1965), 258. (An oval floor to a small timber building has been discovered recently at Monkwearmouth, but precise function and context remain to be determined—information Miss R. Cramp).

[22] e.g. *Hist. Eccl.*, II, 14; III, 17; III, 25.

[23] e.g. *The Kings Works*, I, 1 ff.

[24] For temporary monastic buildings perhaps Fountains and Kirkstall, *Y.A.J.*, XV (1900), 273 ff; for workshops, Salzman, *Building in England*, 39.

hand remains a possibility, as do the areas to the north and west of the church.

THE POST-CONQUEST STONE BUILDINGS

(a) *Lime-Kiln and Mortar Mixing* (figs. 3 & 6)

The processes of construction of the post-Conquest buildings are to be seen in the remains of a lime-kiln and a nearby rock-cut hollow used for mixing mortar. The pit of the lime-kiln was almost circular, being twenty-six feet in diameter at the top and six feet deep from the rock surface. A flue covered by large stone slabs led into the pit on the south side, running beneath the south wall of the medieval byre or "B" Block. A single cutting across the pit revealed extensive burning on its sides in the lower three or four feet. A thick band of limestone fragments mixed with earth and partly burnt, together with patches of lime, fragments of burnt wood, and a few small coal cinders, constituted the bottom fill (fig. 3, (*a*)). This was overlaid in turn by a thin band of mixed earth (*b*), perhaps deliberately introduced to cover the remains of the last burning, and two tips consisting of masons' chippings and earth (c^1 and c^2). Finally, maybe after no long interval, but before the construction of the later byre, the remaining central depression was levelled up with earth (*d*). Where the north wall of the later byre crossed the pit it had been necessary to construct more substantial foundations in a prepared trench some three feet deep (*e*).

Only one small fragment of post-Conquest medieval pottery, unfortunately of indeterminate date, was recovered from amongst the tip of masons' chippings in the kiln. On the other hand, the feature was clearly later than timber building 2 and earlier than the byre, though it need not have predated the latter by any great length of time. As will be seen, it is unlikely that the byre in this form would have had any high priority in the monastic building programme; therefore the kiln could represent some other major constructional

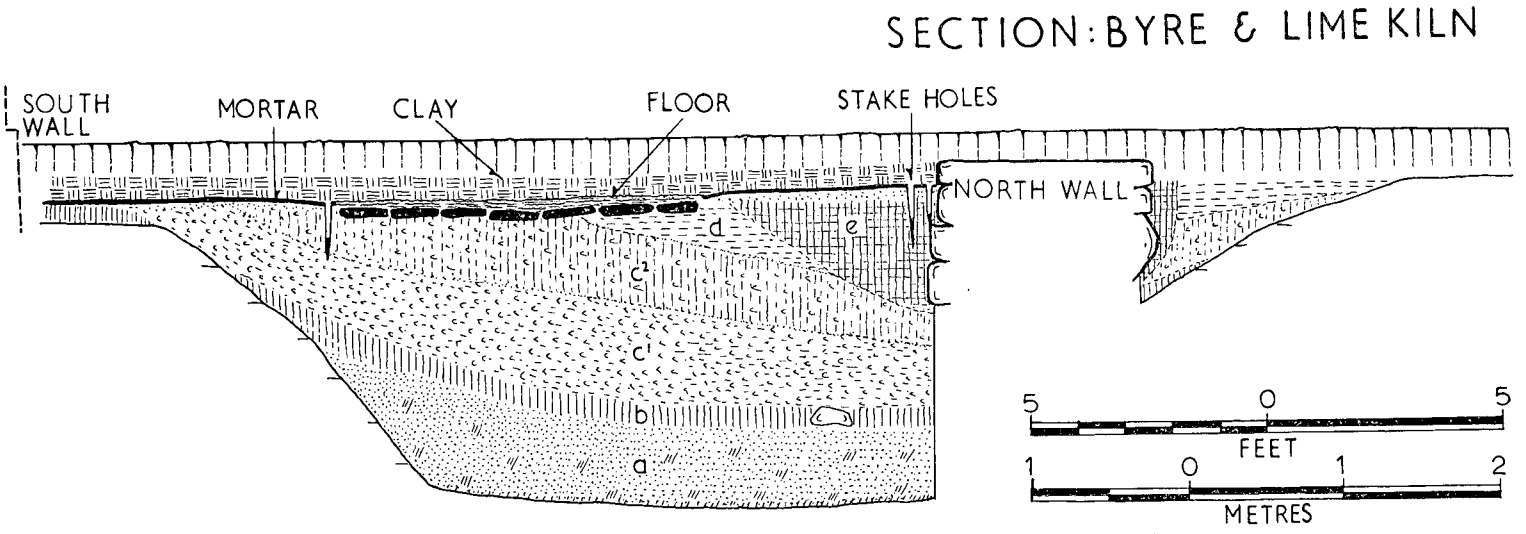

SECTION: BYRE & LIME KILN
SOUTH WALL
MORTAR
CLAY
FLOOR
STAKE HOLES
NORTH WALL
a
b
c
c¹
c²
d
e
5 0 5
FEET
1 0 1 2
METRES

FIG. 3

activity later than the original Norman church, but presumably earlier than the priest's house and sacristy because of their close proximity.

The nearby mortar mixing floor had been sunk into the bed-rock and the remnants of mortar had hardened into a texture almost indistinguishable from the surrounding rock, thus at first completely obscuring the remaining traces of the large circular house. It ran beneath the east wall of the sacristy, for which a fourteenth-century date is proposed, and can most probably be related to the same activity as the lime-kiln. Both features, if not connected with the building of the original Norman church, can best be seen as evidence of construction on the eastern and western extensions to the church in the late twelfth or first half of the thirteenth century. It would be an odd position to choose for supplying mortar for work on the cloisters or south side of the church generally.

Similar medieval lime-kilns occur for example at Torksey,[25] Lincolnshire, there probably in a late eleventh- or early twelfth-century context, near to Old Sarum,[26] Wiltshire, at Chew Park,[27] Somerset, and, with a square pit, at Quilters Vault, Southampton.[28] Their widths vary from ten to eighteen feet and the depths of the pits extend up to six feet. At Chew Park and Old Sarum there were flues similar to that at Tynemouth. Although there is archaeological evidence for early kilns with built-up walls, in addition to documentary evidence for making a pit and "setting stones around the kiln",[29] there was no trace of any superstructure at Tynemouth. It has been suggested elsewhere, that the material in the kilns might have been covered merely by turf or earth during combustion, and certainly the practice of burning alternate layers of fuel and limestone placed in simple pits

[25] *Ant. J.*, XLIV (1964), 173.
[26] *W.A.M.*, LVII (1958-9).
[27] *Ibid.*
[28] *Med. Arch.*, 6 & 7 (1962-3), 348.
[29] *Arch. Camb.*, CI (1950), 72.
Salzman, *Building in England* (1952), 150.

has lasted until comparatively recent times in our own area.[30] Medieval illustrations of the preparation of mortar sometimes show wooden mixing troughs, but no evidence for such existed in this instance.

(b) *Pathways* (fig. 4)

Immediately to the north of the north wall of the transept lay a system of pavements, constructed from close fitting slabs of reddish sandstone set in thin beds of clay, resting on the band of soil overlying bed-rock. Although their course was interrupted by later buildings and disturbance, a more complete pattern may be assumed. Earlier excavation trenches, probably directed towards tracing the foundations of the north wall of the transept, had removed any evidence of relationship between the westernmost path and the transept wall; but there can be little doubt that at this point the path was associated with two sandstone blocks, cut to form the base stones of a gateway, possibly ornamental. In the same area, a displaced paving slab, pierced by a pivot-hole, would seem to confirm this attribution. The northern course of this path was terminated by the general disturbance on the south side of "B" Block, but originally it could well have continued beyond this point. It is also possible that a branch pathway had connected with the parallel stretch of paving found at the east end of the excavated area, thus passing in front of a small water trough and cistern base which were constructed from the same type of sandstone. The easternmost pathway had been cut off by the south wall of "B" Block and, as no doorway was found in the medieval walling beneath this, it may be assumed that it had previously continued beyond this point further to the north.

These pathways were demonstrably later than the timber building 4, but earlier than other stone foundations immediately to the north of the transept, and had been removed by late burials at the east end of the excavated area. They would seem to fall into a fairly early context in the history

[30] *Journ. Agric. Soc., Univ. Newcastle upon Tyne,* 20 (1960), 37.

of the church and may even have controlled the siting of the sacristy (below), though this is by no means certain. The layout suggests a garden area, which could account for the disturbed nature of the red-brown soil lying above bed-rock in this area. If so one can only sympathise with the remarks of the twelfth-century monk concerning the horticultural hazards on such an exposed headland.[31] A " garden place " is shown on the Elizabethan plan of the area,[32] but is there confined to the east of the Priory church.

The cistern base and trough, perhaps supplied originally by a lead pipe, was not associated with any building and, unless constructed from re-used paving stones, could have formed part of the same complex. Little is known about the water supply of the establishment, though two wells are located on the headland. Apart from this, it is known that the monastery was eventually supplied by pipeline from some two miles away which could date from the mid-thirteenth century when a workman was sent from Hexham, " skilled in plumbing and in laying on water ".[33] There is also reference to the " water poole or pounde " in a survey of 1577.[34] If not positioned with artistic licence, one other similar water point may have existed in the vicinity, since on Waters' painting of the choir in the mid-eighteenth century, a trough (with disporting children) is shown further to the east.[35]

(c) *Sacristy* (fig. 4, plate VIII)

Immediately to the west of the north-west corner of the transept, and extending to the north, were the remains of this stone building, measuring twenty-four by fourteen feet internally. Its foundations, ashlar faced with rubble and mortar core, were laid in a shallow, rock-cut trench of vary-

[31] Letter quoted in *Northumberland*, VIII, 72.
[32] *Ibid.*, reproduced as plate XII.
[33] *Ibid.*, 76
[34] Reprinted text in *Arch. J.*, LXVII (1910), 45.
[35] Reproduced as plate IX in *Northumberland*, VIII. On water points generally see Salzman, *op. cit.*, 270 ff.

ing width. On the west side, where rock gave way to sand, the foundation trench was less regular but deeper and the foundations wider. Very thin sandstone slabs had been used to pave the floor, but these were no longer *in situ* over the whole area and had deteriorated almost to the consistency of sand. To the north of the modern sewer trench, where the rock bottom was at a slightly lower level and had been further lowered by the earlier mortar mixing floor, this paving rested on a stone and earth raft. In the south-west corner of the building some of the paving slabs had been reddened by burning. Fragments of wall plaster and lead roof clips found on the floor level point to plastered walls and a leaded roof. A doorway had existed originally in the south-east leading into a vestibule and thence doubtless into the church by way of a doorway inserted into its north wall. No attempt was made to trace the west wall of this vestibule as far as the church wall, but the point of junction is clearly marked by the section of moulding removed from the plinth of the church foundations. None of the floor level in the vestibule had survived recent disturbance.

After these buildings fell into disuse, a large deposit of glass comprised of thirteenth-century window glass, perhaps from an adjacent window in the north wall of the church, and some vessel glass, had been dumped on rock level within the area of the vestibule and covered with a clay spread. Although obviously a clearance deposit, the vessel glass is such as could have been stored in the sacristy itself. Post-Suppression buildings erected in the same area after the sacristy had been dismantled are described below (p. 64).

It has already been suggested elsewhere[36] that the doorway inserted into the north wall of the church probably dates to the fourteenth century and that, at about the same time, the single light Norman window in the east bay may have given place to the double light ogee window a little to the west of it. It is possible then that the buildings just described could fit into such a context. Beneath the floor level

[36] *Arch. J.*, LXVII (1910), 26.

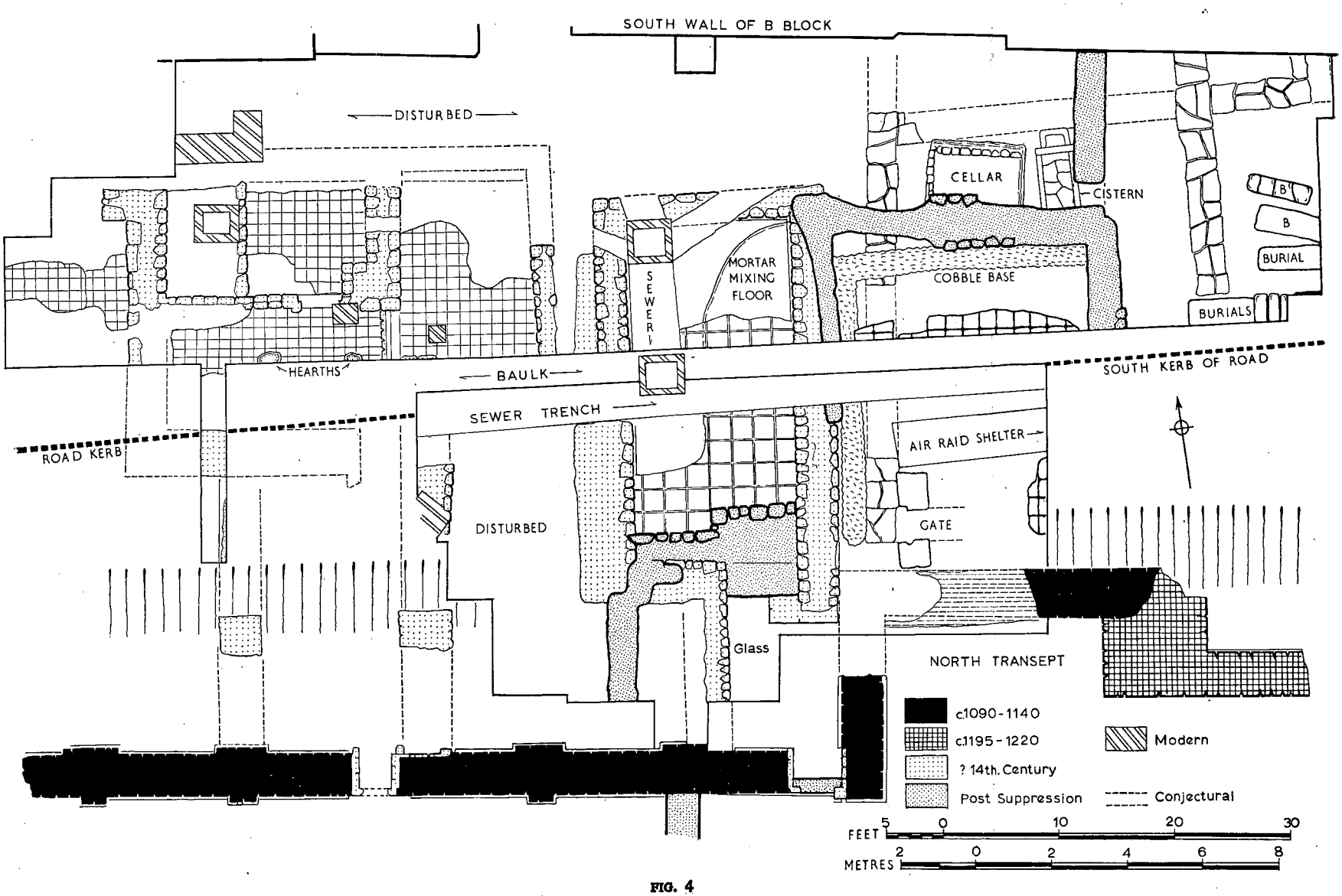

TYNEMOUTH : SACRISTY & PRIEST'S HOUSE
SOUTH WALL OF B BLOCK
DISTURBED
CELLAR
CISTERN
B'
B
BURIAL
BURIALS
SEWER
MORTAR MIXING FLOOR
COBBLE BASE
HEARTHS
BAULK
SOUTH KERB OF ROAD
SEWER TRENCH
ROAD KERB
AIR RAID SHELTER
DISTURBED
GATE
Glass
NORTH TRANSEPT
c1090-1140
c1195-1220
? 14th. Century
Post Suppression
Modern
Conjectural
FEET 5 0 10 20 30
METRES 2 0 2 4 6 8

FIG. 4

of the main room were two sherds of thirteenth-century pottery and from the floor level itself came a few sherds of fourteenth-century pottery. A book or box mount of mid-eleventh-century date was also recovered from the same floor, but this could well have come from some long treasured possession. Documentary evidence is not explicit, yet it may be that the construction of the building took place under Prior de la Mare (1340-49) when a sum of £864 was spent on various works.[37] The Elizabethan plan of the headland does not show anything at this point that could be easily equated with these buildings which, therefore, may have been dismantled by this time. On the other hand, the plan is not notable for its accuracy.

Although no distinctive feature, such as an eucharist oven, was found to confirm the function of the buildings as a sacristy, this would seem to offer the best solution. The reddened paving in the south-east corner of the main room and the finds themselves, including the nature of the glass vessels and lamps from the later clearance deposit, would give some support to this interpretation. Moreover, so far as the location of the building is concerned, parallels exist. Buildings on the north side of the north transepts at Castle Acre[38] and Thetford[39] (Cluniac), and on the east side of the north transept at Pontefract[40] (Cluniac), are almost certainly sacristies and contain small eucharist ovens. A similar function has been attributed to buildings in comparable positions at Gloucester[41] (Benedictine) and Fountains Abbey[42] (Cistercian), though perhaps with less evidence, and a close parallel to Tynemouth occurs at Kirkham Priory[43] (Augustinian), where a passage was also inserted to provide access to the church. This being so, the position of the earlier sacristy at Tyneside has not been determined, although a certain

[37] *Northumberland*, VIII, 96, for refs.
[38] *Castle Acre Priory* (H.M.S.O. 1965), 8.
[39] *Thetford Priory* (H.M.S.O. 1956), 4.
[40] *Pub. Thoresby Soc.*, XLIX (1965), 92.
[41] *Arch. J.*, LIV, 77 ff.
[42] *Y.A.J.*, XV (1900), 269 ff.
[43] *Kirkham Priory* (H.M.S.O.).

building shown on the Elizabethan plan, lying to the east of the chapter house and now covered by a graveyard, has been presumed to have been a sacristy at some stage.[44]

(d) *Priest's House* (fig. 4)

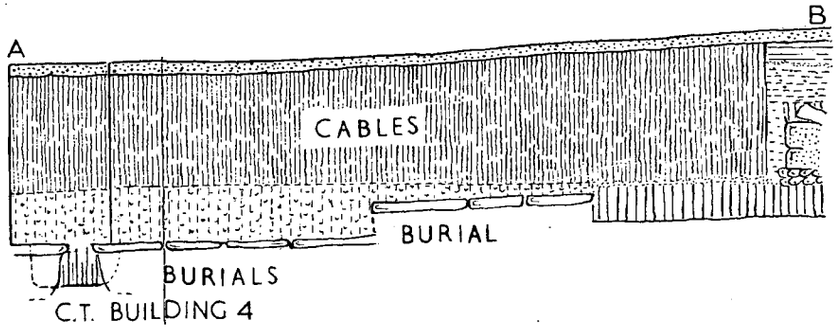
On the same Elizabethan plan, a building situated to the west of the newly proposed sacristy was conjectured by Gibson to be the *Priors Lodging*, according to his interpretation of the roughly inscribed annotation. Craster and Hadcock, however, preferred to read *Priests Lodging*, and saw it as the vicar's house to which allusion is made in a survey of 1605.[45] The interpretation of it as a priest's house has been generally accepted. The connection between this house and the church was already known from Knowle's plan and from the extant foundations opposite to the seventh bay from the west end of the church, where a doorway leading into the nave is clearly a later insertion.

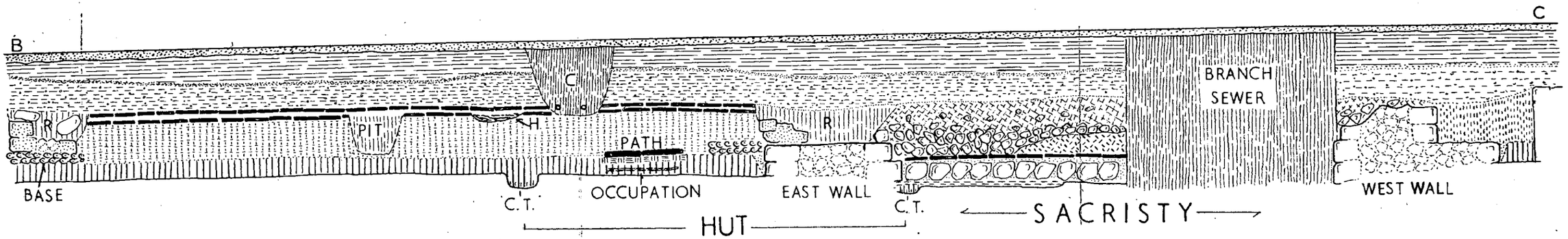
As in the case of the sacristy to the east, the main part of this building underlay the modern road. It was dissected by the inevitable series of trenches for modern services and armoured cables, whilst its northern extremities had been completely destroyed by late military work connected with "B" Block. There was no time available to uncover the south wall or the connection with the church which, except for the position shown in Knowles' plan of 1905, must remain conjectural. Paved floors were left intact and no attempt was made to pursue the possibility of underlying features, other than the circular, timber-built house already described. In addition to the rooms partly uncovered and shown in plan, a paved offshoot on the east appeared to be no more than the remains of a yard or a pent, since its eastern boundary wall, extremely narrow and insecurely founded, can have served as no more than a sill. Fragments of a stone encased drain were found in the disturbed area to the north and may have connected with the north-east corner of the

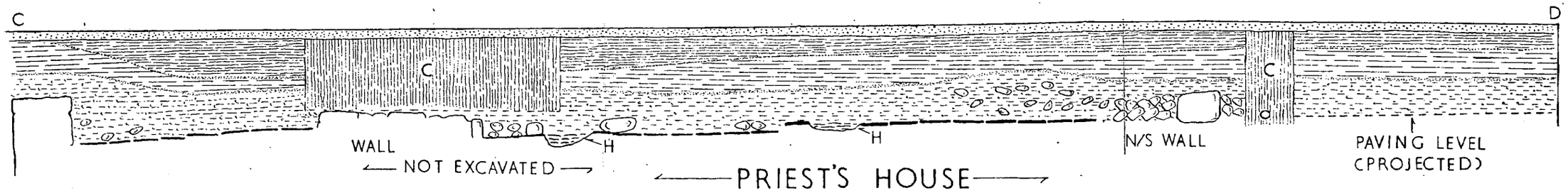
[44] *A.A.*[4], XIV (1937), 216.
[45] *Ibid.*, 217.

SACRISTY & PRIEST'S HOUSE : SECTION EAST-WEST

C - CABLE TRENCH
C.T.-CONSTRUCTION TRENCH
H - HEARTH
R - ROBBER TRENCH







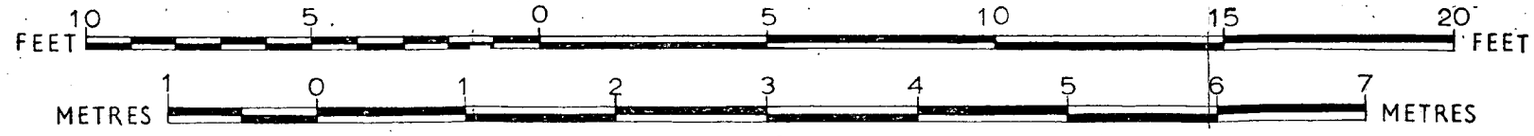


FIG. 5

building, but this point could not be confirmed. Two small forging hearths had been set into the paved floor of the central room and contained the remains of iron nails as well as runnels of lead.

The yield of finds from the building was disappointingly small in quantity and presumably connected with later occupation. The most significant were a rose farthing of Charles I, from a crack between the paving stones, and clay pipe-bowls of the second half of the seventeenth or the early eighteenth century, together with some fragments of late seventeenth-century pottery and two gun-flints from the floor level. Although many sherds of post-Conquest medieval pottery were recovered from the mixed fill above the floors of the building, it was evident that these successive levels were composed of scraped up material, used to level the site after the buildings had been robbed of their stone (section, fig. 5).

The bishops of Durham had jurisdiction over the parish church from the mid-thirteenth century and a secular vicar, chaplain and clerk were maintained by the monks. As already stated, the priest's house is shown on the Elizabethan plan and allusion is also made to a vicar's house in 1605, when the nave was still in use as a parish church. Whatever the early history of the building may have been, it is clear that its latest occupation is to be connected with the small forging hearths and undoubted military activity. In view of the chequered history of the nave which, between times as a parish church, also served as an ordnance store, it is not surprising that sooner or later an adjacent building would be open to a similar fate, and in this instance was used as a military workshop of sorts. In any event, by 1650, the church was completely ruined and work started on the new parish church at North Shields. On a plan of Tynemouth Castle dated 1741,[46] no buildings are shown between the church and the byre or what was to become "B" Block; therefore, the useful life of the priest's house as a building

[46] Reproduced in *A.A.*[2], XVIII (1895-6), 78.

could well have come to an end within the governorship of the castle by the Villiers family (1661-1707), when it is recorded that many of the monastic buildings were pulled down to construct a governor's residence, barracks and a lighthouse.[47]

(e) *Byre* (fig. 6, plate VII, 2)

According to the annotation on the Elizabethan plan of the monastery, a building aligned with the church on its north side has generally been taken to be a "corn-house", although "cow-house" would provide an alternative reading. A short description of what is undoubtedly the same building, then used as an artillery store, is included in the survey dated to 1577 concerned with the repair of buildings inside the castle precincts.[48] The length of the building given therein corresponds with the length of "B" Block before demolition,[49] although the width is much less. Moreover, it was suspected that the south wall of "B" Block incorporated masonry of the south wall of the "corn-house". A cutting was made which revealed the foundations of the original north wall of the "corn-house" at a distance of thirty feet from the south wall of "B" Block, thus corresponding with the measurement given in 1577. It was the discovery of traces of earlier timber buildings in the same cutting that led to the excavation of a larger area of this building than originally intended.

Some twelve inches below the assumed floor level of "B" Block, an earlier floor level was marked by a thick spread of clay extending between the original north and south walls (fig. 3). The upper extent of the clay had been removed during recent demolition, but this floor level was probably that

[47] Grose, *Antiquities of England* (1774).

[48] Reproduced by Knowles *op. cit.* The relevant portion is as follows: "The house called the store house, wher thartillerye lyeth vawted over with stone and covered with slayte containing in length xxxijth yardes, in breadth xth yardes, in height viijth yardes the walls iijth foote so much in decaye, that we judge thereof with workmanship will amount unto . . . . . Summa xiij li. iij s. iii d."

[49] O.S. map 1954, where the measurements of "B" Block are *c.* 112′×55′.

connected with the later use of the medieval building, perhaps starting as an artillery store in the later sixteenth century.

The main features of the original building were preserved beneath the clay spread. These consisted of a central pavement slightly sunk into rock, running the length of the building and being flanked on either side by slots for wooden partitions. In the stalls so formed were slight traces of a surface of lime mortar, the whole arrangement exhibiting some degree of agricultural sophistication. Subsequent alterations were evident in the many small stake holes, put in after some of the central flags had been disarranged and after the earlier partitions had been removed or fallen into disrepair. On the north side of the building the stakes reproduced the earlier pattern of stalls and possible supports for feeding racks, but on the south there had evidently been a fairly continuous wattle screen. A thin band of compressed cow-dung and ? oat straw covered the central pavement and extended in places into the stalls. Taken in conjunction with the evidence provided by the horn cores and animal bones this would establish the function of the building as a cow-house or byre, rather than a "corn-house".

At some stage part of the south wall had either fallen or been dismantled before being refaced with ashlar blocks which did not rest on any foundation course (plate VI, 1). It is not surprising that a later buttress had had to be inserted against this outside face in an attempt to restrain the tilt which subsequently developed.

The date of foundation of the building is less easy to determine. The lime-kiln had already been filled and the material somewhat compacted before the foundations for the north wall were laid. In the absence of a clearly established local sequence for medieval pottery, the one sherd from the kiln does not lend itself to close dating, any more than do the few fragments of pottery from between the paving stones of the byre. However, it has already been assumed that a byre in this form would not have had a high priority

in the monastic building programme. On the other hand, once established it had a long history, appearing as a substantial building in a drawing by Place[50] (*c.* 1666-76) and, though altered a great deal in form and function, lasting until recent years.

(f) *Stone-Lined Cellar* (fig. 4)

This cellar, situated to the east of the north-east corner of the sacristy, measured eight by seven feet internally and was six feet deep from the rock surface. Its inside faces had a slight batter and were lined with small ashlar blocks on three sides only, the east side and bottom being bare rock. There was no evidence for any superstructure, or for a means of access, in that portion which was available for examination. On disuse of the cellar and before any natural silting or slip had occurred, a clearance deposit of mixed earth, broken pottery and kitchen refuse had been dumped into it. Subsequently the foundations of a later building had been dug into this infilling and the remaining upper reaches of the cellar packed up with earth (*v.* post-Suppression buildings, below).

Fragments of native ware and Roman British coarse pottery were found in the earth packing between the north side of the cellar-pit and its stone facing, but these clearly have little bearing on the context of the feature. If the conjectural lines of the medieval pavements to the north of the transept are correct, then the cellar would be later in date than these, which themselves may represent part of the earliest layout to the north of the church. The pottery from the internal tip contains some sherds of the thirteenth century but there is much in addition that is not closely datable on present knowledge. In any event, as a clearance deposit its usefulness in respect to dating this feature is limited.

As to function, a cess-pit seems to be out of the question and there were no features distinctive of, say, an early ice-

[50] Reproduced in *Arch. J.*, LXVII, plate XIV.

house. Similar stone-lined pits have been found locally for example at Monkwearmouth,[51] and possibly at Whitby[52] and Lindisfarne,[53] without any clear context or function stated at present. Medieval storage pits for larders or wine are known, and have been discussed recently by G. C. Dunning.[54] In the absence of further evidence as to its nature it is taken to be a storage cellar, maybe originally covered by no more than a wooden hatch. It could have been related to the sacristy or priest's house as the nearest buildings that might warrant such provision.

(g) *Cobbled Base* (fig. 4)

One remaining feature would appear to fit into a pre-Dissolution context. Adjacent to the west wall of the sacristy were traces of a cobbled base, some two feet wide, enclosing a rectangular area measuring twenty by twenty-five feet, on the assumption that it had continued originally up to the north wall of the transept. Fist-size stones, many of them beach cobbles, were tightly packed in earth which, if it had ever formed an earth mortar, had not proved to be very successful. So far as could be ascertained, no facing stones had been used. In the one area where stratification remained, close by the east to west baulk, this narrow raft rested on the disturbed soil above bed-rock and was completely covered by the make-up material which carried the floor of a post-Suppression building (section, fig. 5). There were no traces of any intervening associated floor level, earth packed or otherwise; consequently the context of the feature depends solely upon structural sequence. In places it had been laid directly over the sandstone pathways and, in section, was clearly later than the foundation trench for the west wall of the sacristy, therefore post-dating both. On the other

[51] Miss R. Cramp *in litt.*

[52] *Arch.*, 89 (1943), 33.

[53] *Lindisfarne Priory* (H.M.S.O. 1949), 18. Although the cellar and the cistern base at Tynemouth are adjacent to each other it is difficult to envisage a contemporary and interdependant function.

[54] *Ant. J.*, XXXVIII (1958), 205 ff.

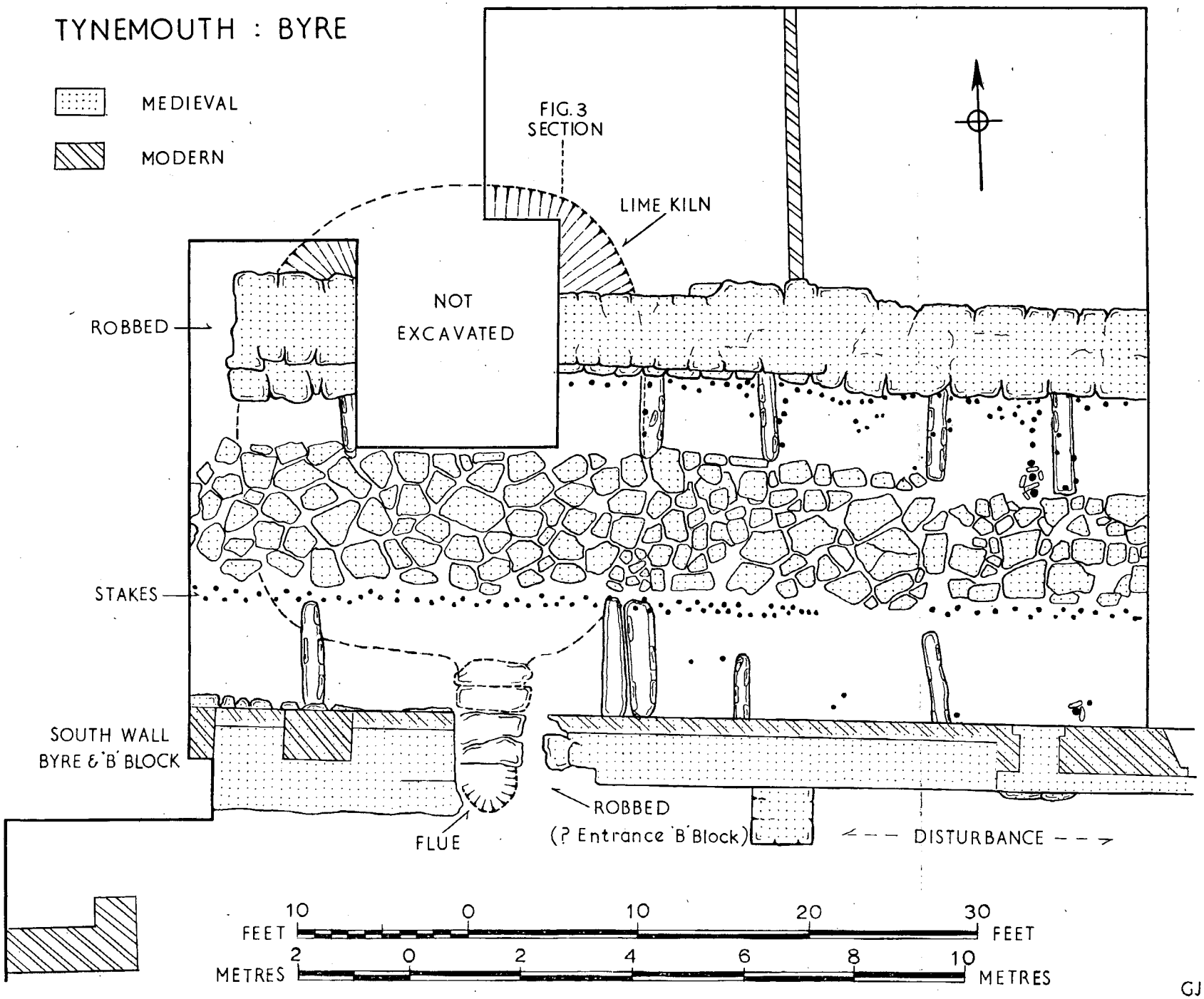
hand, it was earlier than the post-Suppression building on the same site.

It is difficult to envisage a function for this base other than as a foundation for a building, if such indeed had ever been completed. Bearing in mind the insubstantial nature of the feature, a timber building with sill-beams, built close against the west wall of the sacristy would seem to be the most appropriate solution. In which event, the proposed "garden" area to the west of the sacristy must have ceased to exist by this stage. This building could not have outlasted the life of the sacristy which, as we have seen, does not appear on the Elizabethan plan.

(h) *Discussion*

Although the sacristy on the north side of the church had presumably replaced an earlier sacristy, probably in the cloister range, by or during the fourteenth century, it is not possible to be sure of a close context for the priest's house and the byre until more is known of the typological sequence of medieval pottery in the area. However, it is conceivable on historical evidence that the priest's house already existed by this time, and it may well be that all three buildings stood together in the fourteenth and fifteenth centuries, with the byre representing only one of a collection of farm buildings known to have existed on the north side of the headland. The history of the priest's house and the byre, in somewhat altered form, continued well into the post-Suppression period, but the sacristy must be presumed to have fallen into decay or have been dismantled by the time of the Dissolution or shortly afterwards.

The presence of the priest's house and the byre was to be anticipated in the area as excavated, but no traces were found of another stone building, in itself vastly more interesting, which conjecture has sometimes placed on the north side of the Norman church. In the accounts of the transference of the body of St. Oswin from the pre-Conquest church to the new foundation at Tynemouth, as given in the *Vita*


TYNEMOUTH : BYRE
MEDIEVAL
MODERN
FIG. 3
SECTION
LIME KILN
NOT
EXCAVATED
ROBBED
STAKES
SOUTH WALL
BYRE & 'B' BLOCK
FLUE
ROBBED
(? Entrance 'B' Block)
DISTURBANCE
10 0 10 20 30
FEET
FEET
2 0 2 4 6 8 10
METRES
METRES

GJ

FIG. 6

Oswini, there is the implication that the pre-Conquest church with its tower, which formed a conspicuous landmark during William's campaigns against Malcolm of Scotland, was still standing after the erection of the Norman choir.[55] It is of interest as probably having been one of a group of late Saxon towers between Tees and Tyne to which Miss Cramp has drawn attention.[56] The suggestion has been made elsewhere[57] that this church could have lain on the north side of the Norman church, where the Roman inscribed stones were also found, as these may have been incorporated in its foundations. From the present excavations all that can be said is that the chance of this being the case is considerably reduced.

Before leaving the medieval context a few minor points concerning the monastic economy merit passing reference. The evidence for the presence of coal in addition to wood fuel in the lime-kiln, recalls the interest of the Priors of Tynemouth both in coal "winning" and the early trade in coal from the Tyne.[58] Indeed, by 1285, the use of "sea-coals" for burning lime was already being denounced in London as a nuisance.[59]

A further commercial as well as domestic interest is reflected in the survival of a few fish vertebrae, probably of salmon and cod, from medieval contexts. It is possible that even in monastic times Tynemouth was supplying the London market and in the thirteenth century fishermen were settled at the "Scheels", now North Shields, on the prior's demesne.[60] A liberal supply of winkles, mussels, limpets and oysters is to be expected from such a site, and maybe at times there was some justification for the veiled complaint of one monk against the amount of fish in the diet, contained in a letter probably written in the late twelfth or thirteenth

[55] *Northumberland*, VIII, 43.
[56] *Durham University Journal*, LVIII (1966), 123.
[57] *A.A.*[4], XIV (1937), 224.
[58] Gibson, *op. cit.*, 216.
[59] e.g. Salzman, *English Industries*, 6.
[60] *Northumberland*, VIII, 285.

century.[61] The rocks by the *Black Middens* at the entrance to the Tyne still remain one of the most prolific sources of winkles in the area. There are no records of oyster beds on the Tyne itself (p. 95 below), but it is tempting to look to the nearest known "Oyster Scap", situated on the south side of the harbour at Holy Island directly opposite to Lindisfarne Priory, as a possible source for a limited supply. Certainly the monks of Holy Island and Farne invested in fishing boats,[62] even if perhaps not to the same commercial extent as the priors of Tynemouth.

The animal remains are again of a nature that could be anticipated, including ox, sheep and a good proportion of pig. And the scant remains of fowl, including possibly domestic fowl, serve to remind us of the large "poultry yard" shown on the Elizabethan plan to the north of the byre. The capacity of the byre or "cow-house" is difficult to assess on no more than a partial excavation and the possibility that both single and double stalls may be present.[63] However, accommodation for twenty-five to thirty animals would not seem to be an unreasonable estimate for the whole building.

POST-SUPPRESSION BUILDINGS

(a) ? *Vestry* (fig. 4)

After the walls of the sacristy had been reduced or robbed almost to foundation level, a later building was inserted in the angle formed by the west wall of the transept and the north wall of the church. The doorway between the earlier vestibule and sacristy was roughly blocked and additional L-shaped foundations inserted against the inside face of the south wall of the sacristy, resting directly upon the earlier paved floor. These foundations were presumably intended to carry the north wall and perhaps a buttress or entrance

[61] *Ibid.*, 72, for full text.

[62] *Surtees Soc.*, Nos. 99, 100, 103 (Durham Account Rolls).

[63] Based upon the measurements of present day single and double stalls. For earlier measurements *v.* e.g. *P. Dorset N. & A.S.*, 87 (1966), 32.

to the later building. Little remained of the building itself except the rubble and mortar core of its west wall which over-rode the south wall of the sacristy. The mortar in this late work was poor, containing a great deal of grit and shell presumably from the use of sea-shore sand, and was comparable with that used in the walls of the late workshop on the east side of the sacristy (below). Its foundations and rubble core both contained re-used stone in addition to one or two fragments of late medieval pottery. Unfortunately, extensive disturbance had removed all traces of a floor level and a sizeable pit had been dug into bed-rock, only to be back filled with stone. It is conceivable that this marked the site of the "excavation" by Major Durnford in 1782 which produced the Roman inscribed stones from the north side of the church.

For what it is worth, there is a semblance of a building shown on the Elizabethan plan between the south-east corner of the priest's house and the north transept, but the attribution cannot be certain. The most likely function of the present structure would be to have served as a vestry for the parish church in post-Suppression times, making use of the earlier doorway leading from the former sacristy into the easternmost bay of the church. This being the case, the final blocking of this doorway, and the insertion of masonry to enclose the area of the easternmost bay, would represent a transference of the vestry to within the church itself, this before the middle of the seventeenth century (fig. 2).[64]

(b) ? *Military Workshop* (fig. 4)

The remains of this building were again fractional, but it had utilised the east wall of the sacristy as a foundation on that side and, presumably, had been built up against the remaining north wall of the north transept on the south. A transverse wall, probably no more than a boundary wall, had

[64] The walls shown in the outside angle of the transept, on the plan contained in the Official Guide to the priory, were found to be resting on fresh soil. Since they bore little or no relationship to the underlying features they were removed.

also been inserted between the north-east corner of this building and the south wall of the byre. There were fragments of two internal floor levels, very roughly constructed from re-used sandstone slabs, laid upon a thick band of levelling material scraped up from elsewhere on the site (section, fig. 5). Both floor levels, in the small compass where they were still intact, were burnt red from small hearths and there was evidence of small scale iron forging and the re-smelting of lead.

The building was demonstrably later than all medieval features already described to the north of the transept. Although the material used to level up the area for the floors contained the *styca* of Ethelred II, previously mentioned, it also included fragments of late medieval pottery. A fragment of probable post-medieval pottery was also incorporated in the core of the north wall of the building. A coin of Charles II was the only datable find from the paving of the upper floor.

The building was almost certainly of post-Suppression construction, crudely built and used perhaps as a military workshop. Spasmodic military activity at Tynemouth Castle during the seventeenth century could have provided the occasion, although apart from accounts for the cost of the setting up of a forge for repairing armaments in 1614,[65] no specific references to military workshops as such have been found. The building does not appear on any of the eighteenth-century illustrations or plans that have been available for inspection.

The evidence in excavation for more recent military activity does not concern us here, except to mention the destructive pattern of deep trenches for modern services, armoured cables and minute signal wires alike, and the position of a deep air-raid shelter, almost forgotten, since individual memory is often short.

[65] Accounts quoted in Gibson, *op. cit.*, II, 121.

FINDS

All finds except animal remains are lodged in the Museum of Antiquities, Newcastle upon Tyne.

POTTERY

A. *Native Pottery*

Twenty-six sherds of hand-built pottery were found on widely separated parts of the site, but it is possible that no more than two or three vessels are represented, all being fairly large cooking pots or storage vessels. The breakage planes are oblique or semi-circular, occurring at the junctions of the clay rolls. Surfaces are brown to red in colour, sometimes with a slight carbon encrustation, and the cores are grey. Wall sherds range from $\frac{1}{2}''$ to $\frac{3}{4}''$ (1·2 cms.—1·8 cms.) in thickness. The few rim sherds are of a form familiar from Iron Age settlements in the area, both pre-Roman and Roman in date, and at the moment no hard and fast distinction can be made on this basis. However, the clay is comparatively well levigated and fired, the finished products in this respect being closer to examples from the Roman rather than the Early Iron Age settlements of the Tyne-Forth province.

1. Fig. 7, no. 1. A number of sherds including fragments of a large vessel with incurving rim; found in the rock-cut hearth beneath the post-Suppression wall perpendicular to " B " Block.
2. Four sherds, probably from the above vessel, found in the dark soil just above bed-rock close to the same hearth, together with Roman sherds (fig. 7, no. 5).
3. Numerous sherds from the earth packing behind the stone face of the medieval storage pit, presumably derived from scraping. Included in the same material were sherds of Roman British coarse ware and one chip of medieval pottery (not datable).
4. One wall sherd from dark soil above bed-rock to the south of the large, circular, timber-built house and beneath the floor paving of the Priest's House.

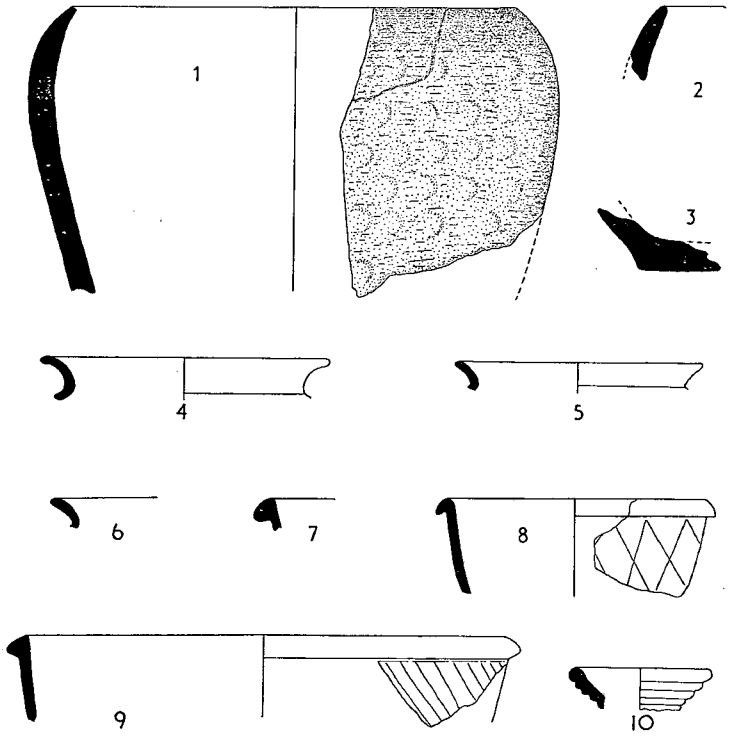


FIG. 7. NATIVE POTTERY 1-3 AND ROMAN BRITISH COARSE WARE 4-10 ($\frac{1}{4}$)

5. Fig. 7, no. 2. One rim sherd from the packing of the construction trench of the timber rectangular-shaped building no. 2.

6. One wall fragment from dark soil above rock surface in the north transept of the church.

7. A number of fragments from various areas of recent disturbance, the fill of the sewer-trench, or the material used for road levelling.

B. *Roman Pottery*

Fifty-one sherds were recovered, representing perhaps not more than twelve different vessels of Roman British coarse

pottery and three of Samian ware. Cooking pots, bowls or dishes, three flagons and one rough cast beaker are present, but mortaria and amphorae are absent. Taken together they form a homogeneous group of the last two or three decades of the second century A.D. In form and in fabric the majority of the fragments of kitchen ware in black burnished fabric would appear to belong to the category of B Ware, so far as this can be ascertained short of chemical analysis (Gillam's category 2 of the *Mumrills* report, *P.S.A.S.*, XCIV [1960-61, 113 ff.]. The full implications of the distribution of this category of pottery in the north remains to be worked out (*Ibid.* p. 99).

(a) *Samian Ware*

There are six small fragments of Samian ware, undecorated but including two rim sections of *form 37*. One sherd was found in the basal packing of the construction trench of rectangular timber building no. 4, one immediately overlying the construction trench of the large circular timber-built house and another in the small area of occupation spread most probably associated with the small circular hut. Another sherd, fire scorched, came from the hearth in the church crossing. The remainder were from the dark earth overlying bed-rock at widely separated points in the excavated area.

(b) *Coarse Pottery*

Fig. 7, no. 4. One fragment from a cooking pot with a cavetto rim in grey fabric; found amongst the original packing of the construction trench of rectangular timber building no. 3.

Fig. 7, no. 5. Two conjoined fragments from the cavetto rim of a cooking pot in black burnished ware and two wall sherds, with lattice decoration, probably from the same vessel; found in the dark soil over bed-rock beneath the post-Suppression wall perpendicular to the byre or "B" Block.

Fig. 7, no. 6. One fragment from a cooking pot with a cavetto rim, in grey lightly burnished fabric; from the dark soil above bed-rock, probably disturbed in medieval times, close to the trench of the small circular hut.

Fig. 7, no. 7. One fragment from a bowl or dish with a down turned rim, in black burnished fabric; from the dark soil overlying bed-rock beneath the stone base for the floor of the sacristy.

Fig. 7, no. 8. One sherd from a small bowl with a down turned

rim and lattice decoration on black burnished fabric; from the small area of occupation spread in the dark soil above bed-rock lying within the perimeter of the small circular hut and sealed by the medieval pathway.

Fig. 7, no. 9. Two fragments from the same or similar bowls with down turned rims, in burnished grey fabric; one from the dark soil dipping into the top of the construction trench of the large circular house and the other from the soil above bed-rock beneath the paving of the floor of the priest's house.

Fig. 7, no. 10. One rim sherd of a flagon in white fabric; Colchester type 156B; from an area of late disturbance north of the north wall of the transept. The type is scarce in the forts of the Wall frontier.

In addition there are wall sherds from the same vessels or similar vessels to those given above, found as follows; four sherds from the initial packing in the construction trenches of the timber rectangular buildings 2, 3 and 4; six sherds in the disturbed dark soil within the perimeter of the small round hut. The remainder, with the exception of a few sherds in areas disturbed by comparatively recent delving, were confined to the dark soil overlying bed-rock at different points in the excavation.

C. *Medieval Pottery*

B. J. N. Edwards

Abbreviations in text with author of relevant section:

Ascot Doilly—Ant. J., XXXIX (1959), pp. 239-268. E. M. Jope and R. I. Threlfall.

Bothwell—P.S.A.S., LXXVI (1951-2), pp. 140-170. S. H. Cruden.

Carlisle I—C.W. 2, LV (1955) pp. 59-107. E. M. Jope and H. W. M. Hodges.

Carlisle II—C.W. 2, LXIV (1964), pp. 14-62. M. G. Jarrett and B. J. N. Edwards.

*Finchale—A.A.*4 XXXIX (1961), pp. 229-267. M. G. Jarrett and B. J. N. Edwards.

F. & S.—Two Medieval Habitation Sites in the Vale of Pickering, T. C. M. Brewster, Scarborough, 1952.

Melrose—P.S.A.S., LXXXVII (1952-3), pp. 161-174. S. H. Cruden.

NCC (Newcastle Curtain Wall)—*A.A.*4, XLIV (1966), pp. 104-129. B. J. N. Edwards.

NM (Newminster)—*A.A.*4, XLII (1964), pp. 153-165. E. Parsons.

Pontefract—Pub. Thoresby Soc., XLIX (1965), pp. 106-122. H. E. Jean le Patourel.
*SAN—A.A.*4, XLI (1963), pp. 85-106. M. G. Jarrett and B. J. N. Edwards.
Scarborough—Scarborough and District Arch. Soc. Research Report 3 (1961). J. G. Rutter.
SMP—P.S.A.S., LXXXIX (1955-6), pp. 67-82. S. H. Cruden.

So far as is possible the pottery is grouped according to provenance. The text number also refers to the illustration numbers in figs. 8-11. An asterisk denotes that the sherds are not illustrated.

The Cellar

The largest group of sherds came from the cellar lying to the north of the north transept. As already indicated in the main body of the report, this group probably represents a clearance deposit.

1. Cooking pot in grey fabric with uniform buff surface, *ca.* 0·5 mm. thick throughout. The fabric contains a little water-worn sand and a few reddish-brown inclusions. The vessel shows marked rilling, and there are traces of knife-trimming near the basal angle and all over the slightly sagging base. It is unglazed, but two tiny blobs of glaze, each with its central pit indicate that glazing was proceeding in the vicinity when the pot was fired (*Carlisle I*, p. 104). The nearest parallel two the rim form seems to be *NCC 41*, but the fabric, and thin heavily rilled walls are unfamiliar, and the vessel must be an import to the area. Aper. diam. 4⅜″; max diam. 5¼″; base diam. 5½″; height 7 1/16″.
2. Basal angle and part of the body of a cooking pot in orange fabric with black to pinkish-buff outer surface. Restored with a thumb-pressed rim as *NCC 60*, *q.v.* for discussion of the type. The height is restored on the basis of the internal finger-marks indicated on the interior, which the vessel shares with *NCC 45*. Base diam. 7¼″.
3. Cooking pot in hard pinkish buff fabric. Probably a variant of the type of *NCC 58*, *q.v.* for discussion. Aper. diam. 7″.
4. Two conjoined fragments of a cooking pot with a flared rim. Fabric grey gritty with pinkish orange surfaces. Cf. *NCC 99*. Aper diam. 7″.

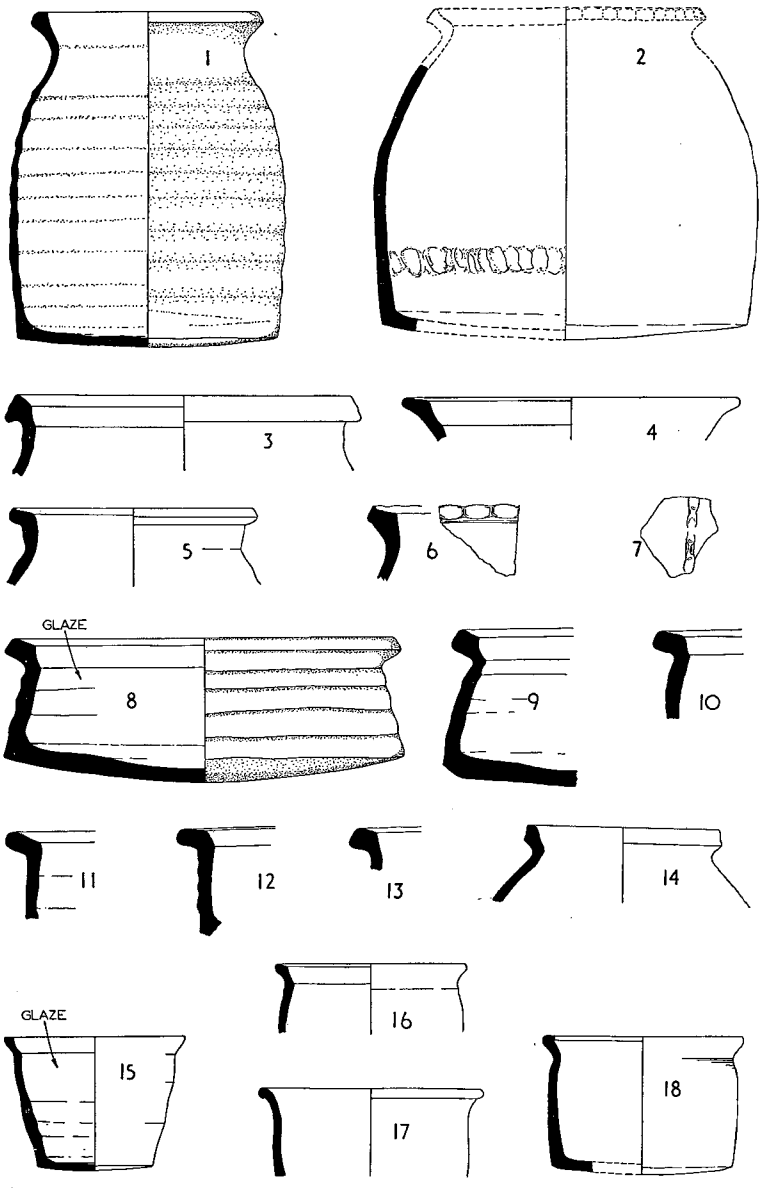


FIG. 8. MEDIEVAL POTTERY ($\frac{1}{4}$)

5. Rim fragment of a cooking pot in hard grey sandy fabric with orange surfaces much soot-blackened. Aper. diam. 5″.
6. Fragment of a thumb-pressed rim of a cooking pot in hard gritty grey fabric with paler grey surface layers. Cf. *NCC 25* and see under *NCC 60* for discussion of the type.
   * A rim similar to no. 6.
7. Three sherds in the same fabric as no. 6 all bearing applied thumb-pressed strip. On no. 7 the strip is only $\frac{3}{16}$″ wide while on the others it is about $\frac{3}{8}$″. There were four fragments at Newcastle upon Tyne (*NCC 108, 56, 57, 13*) bearing thumb-pressed strip, but unfortunately neither there nor here was it possible to decide the type of vessel from which they came. Both thumb-pressed rims and thumb-pressed strip occur on the same vessel at Flixton (*F. & S.*, fig. XIV, 6 & 7).
8. Cooking pot or bowl in coarse gritty buff fabric with grey core. Dull green glaze over the interior of the base and slightly up the walls. Soot-blackening on the exterior. From the irregularities of the exterior it seems that the vessel was hand-made. The base has been knife-trimmed. The nearest parallels geographically to this and nos. 9-13 are to be found in the Vale of Pickering (*F. & S.*, figs. XI, 27-34; XIV, 15-17; XV, 18-19). Here, however, all the rims are thumb-pressed, all the vessels are stated to be wheel-thrown and are unglazed. Elsewhere the general type of vessel is a west-country one *Ascot Doilly*, B.1, E.14). The question of the function of these vessels is bedevilled in the west by the occurrence of holes in the side, but in northern England there seems no reason to doubt that they are cooking vessels, especially as the Tynemouth examples are soot-blackened. The only surprising thing is that no such vessels have been published from the area before. Aper. diam. 8″; base diam. $8\frac{3}{8}$″; height 3″.
9. Five fragments of a vessel very similar to, but slightly taller than, no. 8.
10. Four fragments of vessel similar to no. 8.
11. Rim fragment of a vessel similar to no. 8.
12. Two fragments of a vessel similar to no. 8.
13. Rim fragment of a vessel similar to no. 8.
14. Rim and neck sherd of a small lid-seated cooking pot in very pale orange fabric containing a considerable amount of water-worn grit, much of it reddish-brown in colour. This sherd may belong to a vessel of the type discussed under *Finchale 90* —the handled Scottish cooking pot.
15. Like no. 8, a type of vessel of which this site has produced a number of examples while nothing precisely similar has been described from the area before. The vessel is similar in size

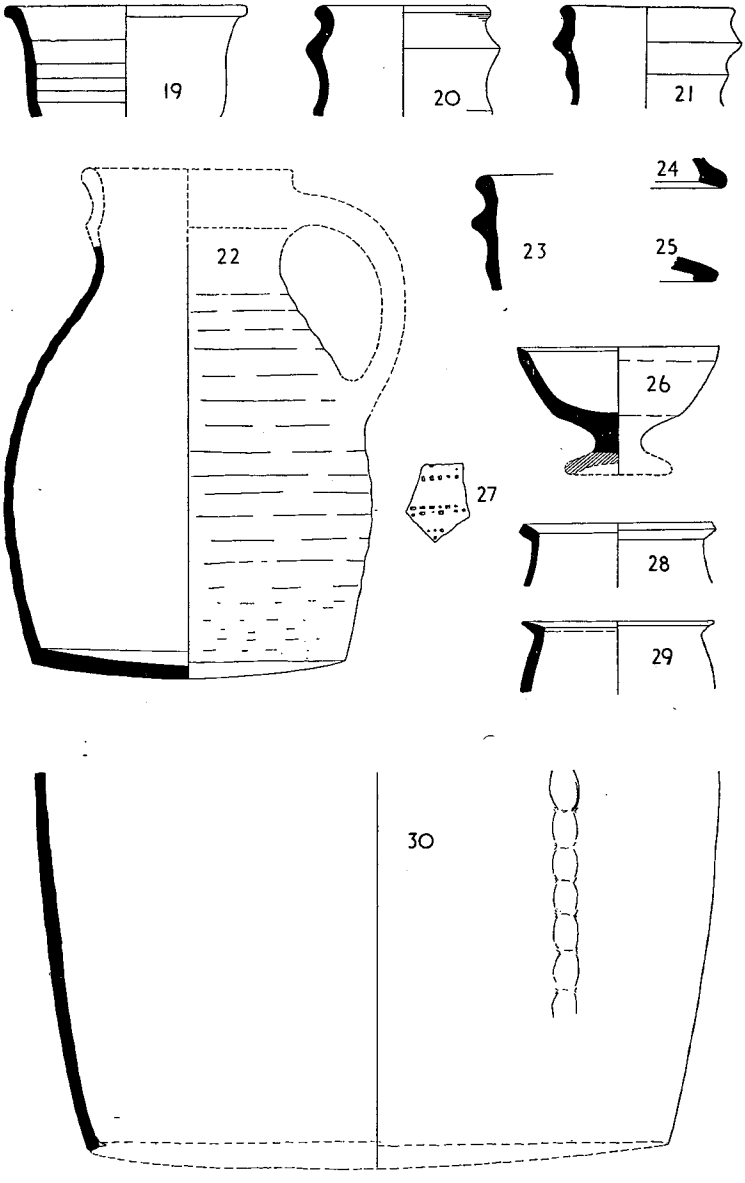


FIG. 9. MEDIEVAL POTTERY ($\frac{1}{4}$)

and shape to a breakfast cup. It is in brownish grey fabric, and shows the marks of throwing inside, while the lowest inch of the exterior has been knife-trimmed. The interior, and the top of the rim are wholly covered with yellow-green glaze. The only external glaze is at two points where the vessel has adhered to another in the kiln. The rim has an internal hollow. Enough is missing of this example for it to have had a handle, but none of the portions of the other examples suggests a handle, so it is improbable. These vessels at Tynemouth, with their glazed interiors, can surely only have been culinary or domestic. Aper. diam. $3\frac{5}{8}$″; base diam. $2\frac{3}{8}$″; height $2\frac{13}{16}$″.

16. Two conjoined rim fragments and a wall fragment of a cup similar to no. 15. The internal yellow-green glaze is streaky, and where it is missing the interior of the vessel is heavily coated with soot. Aper. diam. 4″.
17. Four conjoined fragments and two others of a cup similar to no. 15. Soot blackening on both surfaces. Aper. diam. $4\frac{1}{2}$″; base diam. 3″.
    * Base of no. 17.
18. Two conjoined and five other fragments of a cup similar to no. 15. Fabric buff with grey core. Patchy internal glaze. No smoke blackening, except possibly a little on the base. Aper. diam. $4\frac{1}{8}$″; base diam. $3\frac{13}{16}$″; height $2\frac{15}{16}$″.
19. Rim and body sherd of a slightly larger version of the cup (no. 17). Lustrous green to orange glaze externally and internally, but less internally. Aper. diam. 5″.
20. Jug rim in orange fabric with grey core. Another variant of the cordoned jug rim discussed under no. 48. Green external glaze running towards the rim. Aper. diam. $3\frac{1}{2}$″.
21. Jug rim in buff fabric with grey core. Green external glaze extending up to cordon and running upwards in places still further. Thus, although no. 48 below was fired in the upright position, nos. 20 and 21 were fired upside down. Aper. diam. $3\frac{1}{2}$″.
    * Part of the square rim and neck of a large jug with strap handle in grey fabric with pink outer surface and buff inner surface. A little external brown glaze. Aper. diam. 5″.
22. Many fragments restored to form the body of a jug. Fabric grey, fired to pale orange inside and outside, except where protected by pale olive-green glaze on the upper half of the exterior. Fabric and glaze suggest a thirteenth-century date. Cf. *Carlisle II 106*a.
23. Rim fragment of a cordoned jug. Grey fabric with a slightly browner inner surface. Outer surface orange-buff with

mottled green glaze. It is not possible to tell from the surviving fragment whether the difference between inner and outer surfaces is due to the pots having been fired upside down, or simply with the aperture closed by another vessel.

24. Rim fragment in orange gritty fabric, outer surfaces much soot-blackened. ? Part of a lid.
25. Rim fragment in grey gritty fabric with orange pink surfaces. ? Part of a lid.
26. Part of the rim and body of a cresset lamp in hard dark grey fabric. The exterior is covered with a good lustrous pale green glaze. This extends over the rim and down the inside and appears to have been worn away from the centre of the base. Aper. diam. 4¼″. ? Thirteenth century. For pottery cressets see *L.M. Med. Cat.*, pp. 174-175 and fig. 54.
27. Sherd in hard pale grey fabric with sage green external glaze. Impressed rouletted decoration. Cf. *SAN 34*. Thirteenth century.
28. Rim and neck sherd of a small vessel in hard dark grey fabric. The fabric could be Roman, but the shape is unfamiliar in either a Roman or a medieval context. Aper. diam. 4″.
29. Rim and neck sherds of a small vessel in hard smooth dark grey fabric with very clear-cut surface layers of pale grey. Exterior 1·5 mm., interior up to 1 mm. Aper. diam. 4″.
* Base of no. 29.
30. Large basal sherd of a vessel which has been c. 12½″ in diameter at the base. Fabric rather soft sandy grey with orange surface c. 1 mm. thick. A thumb-pressed strip starts 2½″ above the basal angle. The fabric of this piece is almost indistinguishable in appearance and in manner of flaking from fragments of a Thetford ware storage vessel from Cambridge (see *PCAS* L [1957] fig. 8, p. 57 for the type). The thumb-pressed strip too is in the Thetford ware tradition and reinforces the argument of an extension or development of this tradition in the north-east (*NCC*, p. 121).

Sacristy

Only two sherds were recovered from beneath the floor of the sacristy.

31. Two separate rim fragments of a cooking pot in very hard orange buff ware. One fragment carries a large splash of clear orange-green glaze inside the rim. Aper. diam. 6½″. Cf. *SAN 97* (Shilmoor). Twelfth/thirteenth century.

A number of sherds came from the floor of the building,

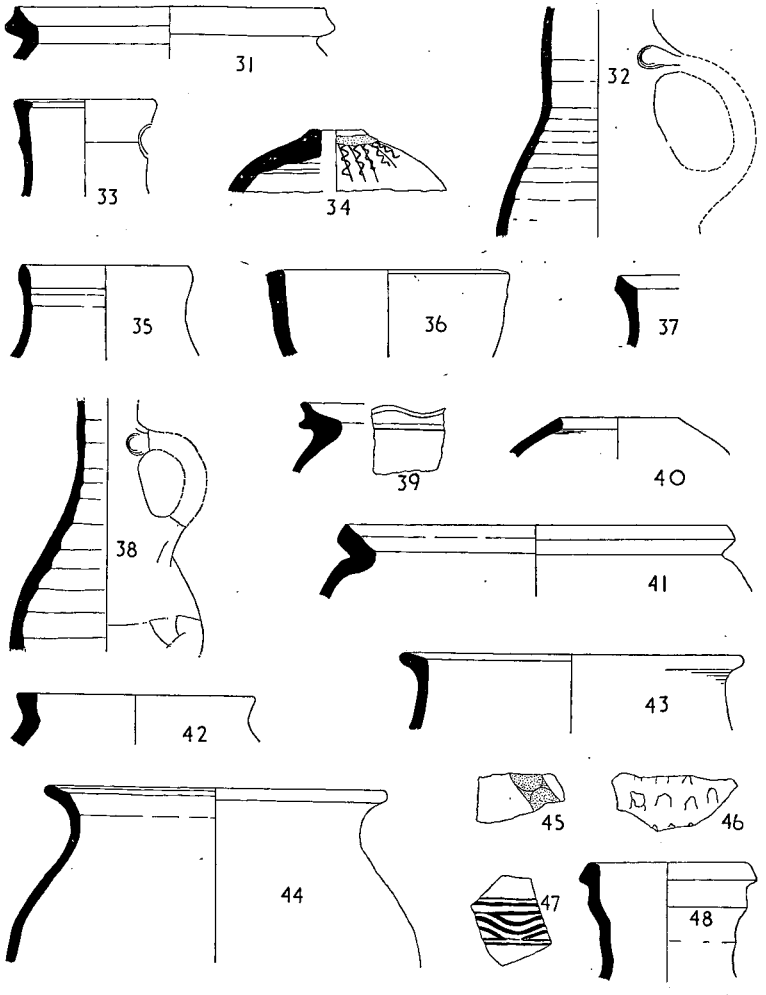


FIG. 10. MEDIEVAL POTTERY ($\frac{1}{4}$)

sealed by the later rubble fill or by the late foundations inserted at the south end of the building.

32. Upper half of the body (rim and lower half missing) of a small jug of the general type of *Finchale 15*. Max. diam. $4\frac{1}{4}$".
33. Neck of jug with simple pulled lip in smooth dark grey fabric fired to orange on the exterior where not covered with brownish green glaze. A small cordon remains, and it seems probable that this vessel represents the development of the earlier type with the prominent cordon e.g. no. 48. The fabric and the inward sloping rim suggest a fourteenth-century date. Aper. diam. 3".

    * Tiny fragment of a jug in bright orange ware with grey core decorated in brown with cream applied slip. Fourteenth century.
34. Two conjoined fragments of a vessel in very hard dark grey fabric. External brownish green glaze over incised lines. The glaze is missing from the area stippled in the drawing. It is very difficult to know what kind of a vessel this was. It may have been a cresset lamp (Cf. no. 26) or a lid. The area from which the glaze is missing may be the scar of a footring or other attachment.
35. Two sherds of jug rim in grey ware with dull orange surfaces and green/brown glaze on the exterior. A very simple rim. Cf. *Finchale 18*. Aper. diam. $3\frac{1}{2}$".
36. Three fragments of the rim of a vessel in smooth grey ware fired to dull orange where not protected by external dull green glaze. Aper. diam. $4\frac{1}{2}$".

The following sherds were found on the edge of a later pit dug through the floor of the sacristy and it is probable that they belong to the preceding group.

* Five small fragments of imported French pottery. I am indebted to Mr. G. C. Dunning for the descriptions and the discussion which follows.

(a) The ware of two sherds is fine and white, with sparse white rounded grits (probably quartzite) and a light red grit. The sherds are glazed on both sides; bright green on the outside, and thinner and lighter in tone on the inside.

(b) Two joined sherds from the bulge of a pot 6·1 inches in diameter. The ware is almost identical with that of the preceding vessel but very few grits can be detected. The surface where unglazed is buff. Glaze is also present on both sides. The outside is wholly glazed above the bulge, with dribbles below on the

unglazed part. This glaze is similar to that of preceding vessel but more lustrous and slightly darker green. On the inside the glaze is very thin and pale yellowy-green due to the body colour showing through.

The vessels represented belong to the same type and have the same origin. The diameter of the second is almost exactly the same as that of a complete jug, probably found in London, in the collection of the Society of Antiquaries (*Arch.* LXXXIII, 133; fig. 14, *d.*). The Tynemouth jug was therefore ovoid in shape with a cylindrical neck, flat base, bridge spout and strap handle. The large diameter rules out that the sherd belonged to the other main shape of green-glazed jug which is taller and slender (*Ibid.*, fig. 14, *e.*). This Tynemouth pottery is imported from western France (Saintonge), where kilns producing polychrome and other fine-quality wares are known at La Chapelle-les-Pots, near Saintes (*Arch.* J., CXX [1963], 201-214). The two shapes of jugs with overall green glaze conform with the leading shapes of polychrome ware, the fabric is scarcely if at all inferior, and clearly they belong to the same ceramic tradition.

(Other types of green-glazed pitchers and jugs were also produced in Saintonge [*Ibid.*, 214, fig. 6] but the shapes are different, the walls are thicker, and usually the glaze is mottled. Pottery of this class was also exported to Britain.)

Although the green-glazed jugs have been found in association with polychrome ware at a few sites in Britain (e.g. at Bristol; P. A. Rahtz in *T. B. & G. A. S.* 79 [1960-, p. 244]) and may therefore be dated as early as *ca.* 1300, there is evidence from two sites in France that this group lasted longer. At Locmariaquer (Morbihan) an ovoid jug contained about 400 coins and four annular brooches, three of silver and one of bronze (in the Musée Préhistorique, Carnac). The date of deposit is considered to be *ca.* 1340-1350. The other jug is of the slender type, was found in the tomb of Guillaume Paré (died 1379) in the church of S. Nicholas de Leure, Le Havre, and is now in the Musée des Antiquités, Rouen (*Arch.*, LXXXIII, p. 133, fig. 14, *e.*). In both instances the jugs may well have been of some age before being buried, but the circumstances suggest that green-glazed jugs continued to be made in the fourteenth century. On the evidence at present available, the Tynemouth sherds may be dated *ca.* 1300-1350.

37. Rim fragment of a cooking pot in hard dark grey fabric with light grey surfaces. Cf. *NCC 123.*

Fragments of four pots came from the lowest level of the rubble immediately above the floor of the sacristy but this had in places been subject to later disturbance.

38. Two groups of conjoined sherds which can together be restored to form the upper half of a vessel of bottle-like form, rim and base missing. Bottles are not common in medieval pottery, though there is a rim from Newminster, *NM 54*, which seems to be from a vessel of this type. Max. diam. 4″; neck diam. 1¼″.
39. Three fragments of bifid rims with finger-impressed upper edges. One has a splash of bright yellow-green glaze on the upper surface. *Scarborough Type 52.*
40. Fragment of the rim of a urinal in dull orange fabric with splashes of external orange glaze. Cf. *Finchale 54*, and pp. 250-251 for discussion.
41. Rim fragment of a large cooking pot in grey ware with orange surfaces and traces of mottled dark green glaze. Cf. *SAN 60*, which had a handle or handles. Aper. diam. 8″.

Priest's House

The following sherd was recovered from an interstice in the paving of the yard.

42. Jug rim in smooth grey ware with brownish green glaze. Aper. diam. 5″. Fifteenth century.

In addition there were a number of sherds of seventeenth- and eighteenth-century date from the fill immediately overlying the floor of the Priest's House.

Byre

One rim-sherd was found on the paved floor in addition to a number of indiscriminate fragments, all were sealed by the later clay spread.

43. Rim fragment in very gritty grey laminated fabric with orange surface layers. For the texture of the fabric Cf. *NCC 13.*

Glass Deposit

A number of sherds were found with the window glass and vessel glass, sealed by a clay spread, lying immediately to the west of the north transept. However, as indicated in the body of the report, this probably represents no more than a clearance deposit.

44. Four conjoined rim and shoulder fragments and numerous

other fragments of a cooking pot in hard sandy grey fabric with brownish buff surfaces where not soot-blackened. Like no. 5 and *NCC 123*, this seems to be a thumb-pressed rim cooking pot in which the thumb-pressing has been omitted. Aper. diam. 7″.

45. Sherd in pale grey sandy ware with pale green external glaze and brownish green glazed applied thumb-pressed strip. Cf. *Scarborough Type 17* and references there.
46. Wall fragment in smooth light buff fabric. Exterior covered with very good lustrous dark green glaze over applied scales. ? An import. See *Scarborough Type 18.*

Post-Suppression Building, East of Sacristy

One sherd (no. 47) was found in the core of the wall where it overlay the storage cellar, and a second (no. 48) beneath its rubble core to the west of the cellar.

47. Sherd in hard buff ware with a thin grey core. External pale yellow-green glaze with a few dark mottlings and combed decoration. Internal dark mottled green glaze. ? Post medieval.
48. Rim fragment of a jug in hard buff fabric with grey core. Patchy pale sage green glaze on the exterior. A common medieval jug rim. See *Scarborough Type 2*; *SMP 4* (Jedburgh); *Bothwell 37*; *Melrose 2*. Aper. diam. 3¼″.

Vestry

One sherd lay beneath the remaining rubble core of the west wall of this late building.

49. Large wall sherd in hard very gritty grey fabric. Exterior covered with lustrous olive green glaze. Decoration: (a) pellets between two applied vertical strips; (b) a group of applied scales enclosed within a forked applied strip. The strips are covered with manganese and are purplish in colour. The shape of the right hand decorative motif, though not its colour or the fabric and shape of the vessel, is exactly paralleled by *Scarborough 19/1.* Thirteenth century.

Recent Make-up Levels and Disturbance

Numerous sherds, including the following, were recovered from the fill of the modern sewer trench, from the make-up for the modern road, and from the generally dis-

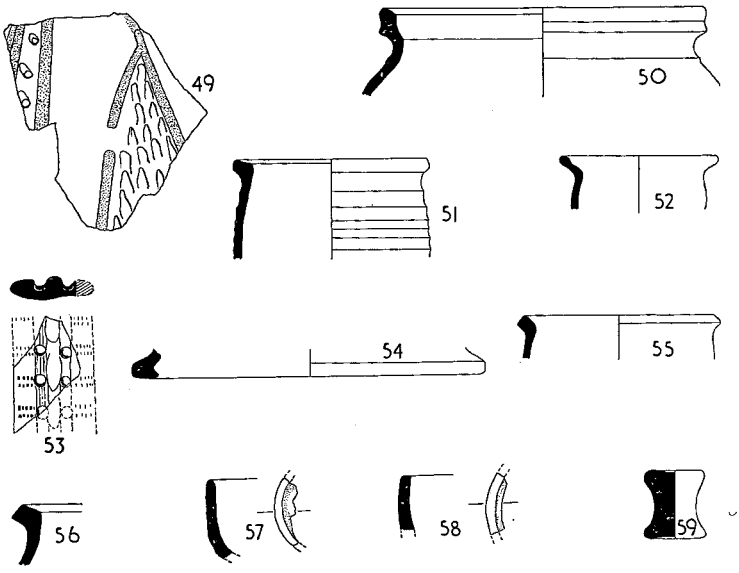


FIG. 11. MEDIEVAL POTTERY AND CRUCIBLES (¼)

turbed area to the south of the south wall of the byre or "B" Block.

50. Rim fragment of a cooking pot in soft buff fabric including a fair amount of water-worn sand, of which about half is pink in colour. Aper. diam. 6¾". Cf. *NCC 32* in a different fabric.
51. Rim of a small vessel in good orange ware with a fine pimply surface, grey core and lustrous yellow-green external glaze. Aper. diam. 4".
52. Rim fragment of a very small vessel in hard orange fabric. Aper. diam. 3¼". A smaller version of *NCC 48*.
53. Part of an elaborate jug handle in grey fabric fired to orange where not protected by olive green glaze. Cf. *Finchale 36* for a slightly different version. Thirteenth century.
54. Fragment of the rim of a lid in hard pale buff fabric.
55. Rim fragment in black fabric with some grits (? calcite) leached out.
56. Small rim fragment in hard orange ware with grey core. External brownish green glaze. Aper. diam. 4". Cf. *NCC 46*.

* Many fragments of a jug in pale buff fabric with tooled vertical ridges. External apple-green glaze. ? A Scarborough fabric.

* Two body sherds bearing thumb-pressed strip which may have come from the same vessel as no. 30, though both have rather more grey exteriors.

* Bunghole from a large, probably three-handled cistern. See *Finchale 49* for the type and *Pontefract* p. 116 and fig. 37 for a discussion and distribution map.

D. *Crucibles*

Fig. 11, nos. 57 and 58. Eight fragments of three or four crucibles were included in the deposit in the cellar. All show vitrifaction consistent with the smelting of a copper alloy. The rims are simple, though one may show the beginning of a lip. The fabrics are sandy and harsh to touch, varying in colour from dark to pale grey.

Fig. 11, no. 59. A small bobbin shaped object of clay mostly bright pinkish red in colour but smoke blackened on the exterior and fired until porous. Probably a stand for a crucible. Provenance as above.

In addition, from the same deposit came three large fragments of fired clay at least 2 inches (5 cm.) thick, buff on the outer surface but with a dark grey core and somewhat porous on the inside. They may have come from the superstructure of a small kiln or oven.

GLASS

A. *Vessel Glass* (fig. 12)

Dorothy Charlesworth

A quantity of green glass fragments from flasks, lamps and urinals was found. All was heavily weathered, with flaking brownish film, pitting and much of it almost devitrified. Only the best preserved pieces are described and illustrated but it must be noted that they represent only a small part of the whole find, although it seems probable that they represent all the individual types. All the vessels could have been made in the glass houses in the Weald[1] or

[1] S. E. Winbolt, *Wealden Glass* (1933), pp. 10-11.

they could have been imported from northern France.

The decorated flask (fig. 12, no. 1) is unusual and I have not been able to find anything quite like it.[2] The shape is common enough throughout the Middle Ages, or indeed almost any time when blown flasks were made, but the decoration has no parallel, at the moment. The most similar flask is one in Rouen Museum, the same shape with the same spiral trail round the neck, ending on the shoulder, but its body is undecorated.[3] The honeycomb of trails and "merry-thoughts" is reminiscent of a much earlier period, sixth-eighth century, when trailing decorated nearly every drinking vessel, but it is cups and bowls which are so decorated and not normally flasks. It is not suggested that this piece is, in fact, earlier than the pieces which accompanied it, although its history is slightly different as it was the only vessel which had been burned. It proved impossible to reconstruct the body because parts of it were blackened and de-vitrified.

The fluted flask (no. 4) on the other hand is a well-known medieval type with a wide range of date. Several fluted fragments were found at Chiddingfold (1220-1400).[4] Late fifteenth-century fragments have been noted in pits in London. The flask normally has a domed base, like the decorated flask and the two examples of plain glass (nos. 7 & 8).

Several lamps were found (e.g. nos. 2 & 3). The shape was used in the Christian churches of the Near East (where it seems to originate in the Byzantine Empire)[5] and in Europe where examples are known from the eleventh century onwards. Two are illustrated on the west front of Amiens Cathedral (1218-36), one held by a Wise Virgin, the other suspended over the bed of Zacharias.

The urinal (no. 5), an inspection glass, is another common form, well illustrated in sculpture and manuscript illumina-

[2] I am indebted to Mr. R. J. Charleston for discussion of this piece.
[3] J. Barrelet, *La verrerie en France* (1953), pl. xi.
[4] Winbolt *op cit.*, pp. 10-11.
[5] *Journal of Egyptian Archaeology*, XVII (1931), G. M. Crowfoot and D. B. Harden, "Early Byzantine and later glass lamps".

FIG. 15. PIPES ($\frac{1}{2}$); STAMPS (1:1)

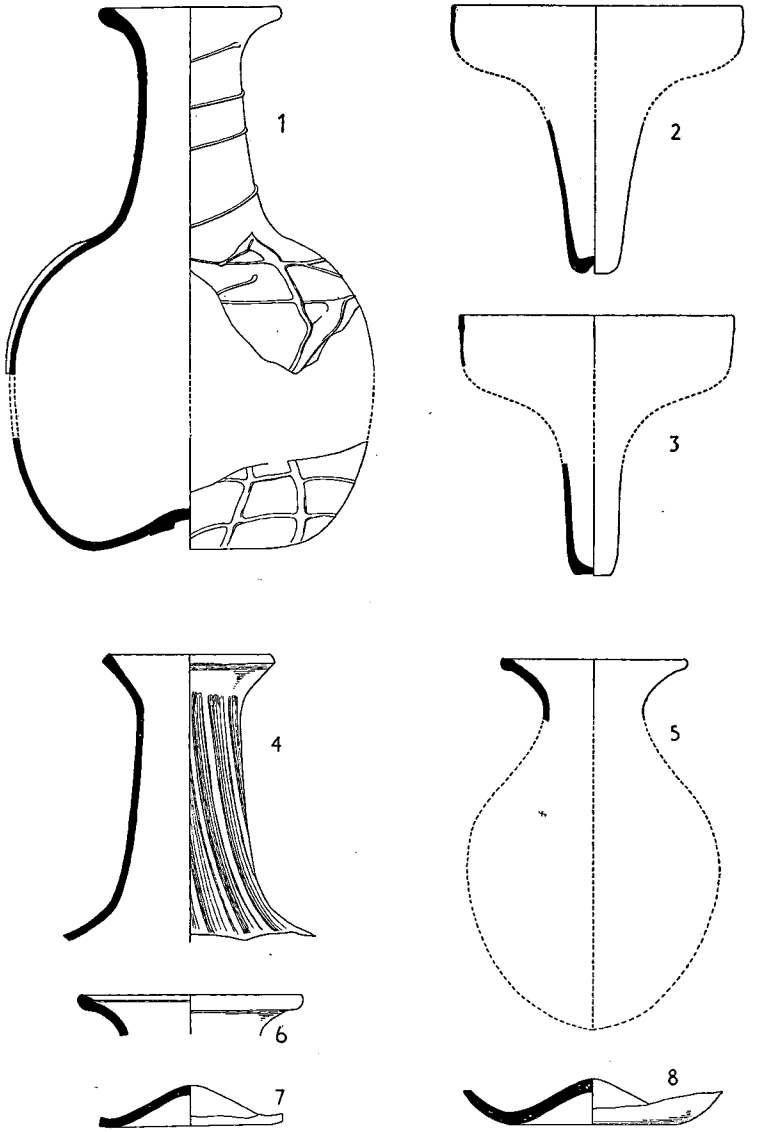


FIG. 12. VESSEL GLASS ($\frac{1}{4}$)

tion and in the lists of possessions of the kings of England including Edward I (*d.* 1307) who had two in his inventory.

Fig.

1. Green glass flask, rim rounded in the flame and partly infolded, bulbous body with concave base with potil mark, neck and shoulder decorated with a spiral trail, body decorated with criss-crossed trails which are sharp on the upper part but almost fused with the body on the base, probably as the result of re-heating the vessel while decorating it, the vessel being still held on the blow-pipe. Height 20 cms. ($7\frac{7}{8}$"). Diameter 19·50 cms. ($7\frac{11}{16}$").
2. Green glass lamp, rim rounded in flame, convex body tapering to a hollow stem base with slight "kick" at bottom. Height restored 14·3 cms. ($5\frac{5}{8}$"). Diameter of rim 15·5 cms. ($6\frac{1}{8}$").
3. Green glass rim, neck and shoulder of flask with fluted decoration, rim rounded, fluting, which starts on the neck formed first in a mould then free blown.
4. Rim of green glass urinal, outsplayed and rounded at tip. Diameter 10 cms. ($3\frac{15}{16}$").
5. Rim of flask, green glass, infolded at tip. Diameter 12 cms. ($4\frac{3}{4}$").
6. & 7. Bases of flasks, green glass, pushed in to form dome and stabilize the vessel.

B. *Window Glass*

L. C. Evetts

A detailed examination of all the painted fragments of glass found in the deposit at the Priory Church at Tynemouth in 1963 reveals evidence that the window glazing of which these fragments were part dates from the thirteenth century. The range of imagery painted upon the glass is consistent in every respect with that one would expect to find in a grisaille and medallion type of window of that date. The grisaille was based on a strict geometrical layout occupying the greater part of the window area with medallions

[6] W. A. Thorpe, *English Glass* (1949), pl. XIV.
[7] Thorpe, p. 83.

bearing figure subjects set at intervals. The medallions, of rich colour, appear in this instance to have been of two distinct sizes according to evidence provided by the fragments of figures found.

The painted fragments number several hundred, many of which are intact. Many more, however, are broken. There is a small number of single fragments surrounded by the original lead and some specimens of about half a foot in area comprising several pieces of glass in original lead. Each of these specimens is of grisaille glass. They provide, of course, undisputed evidence on the precise nature of the design. Five of these specimens consist of an identical unit in the design and many of the isolated fragments of glass bear similar details of painting upon them, so it may be said with certainty that the painting as well as the layout of the grisaille pattern was repetitive.

There are many pieces of tangled leadwork without the glass which it once held in position. This lead is similar to that in the specimens described above and all of it is in good condition. Doubtless it owes its preservation to the factor of being buried. All the glass, on the other hand, has suffered in varying degrees by being buried: some of it has decayed into a fragile and crystalline state and carries upon it the kind of deposits, both physical and chemical, which indicate burial for a considerable length of time. A few fragments, however, show little signs of their long abandonment in the ground.

The glass was made by the muff process and several pieces bear the unmistakable soft selvedge edge which is a feature of this mode of manufacture. Its range of colour is typical of that dating from the thirteenth century, namely, red, blue, green, yellow, light mulberry and white of a greenish tinge. The red is particularly translucent.

Painted details conform in every respect to the type found in grisaille and medallion windows of the period. Beaded borders, both straight and curved, are plentiful, as are pieces painted with stylized acanthus foliage. Rosettes of almost abstract design are numerous. Fragments of figures consist of hands, feet and heads. When examined carefully these fragments suggest that the figures were of two distinct scales, the larger being about twelve to fourteen inches high and the other about eight inches high. The indication would seem to be that large and small medallions were used, possibly in different sets of windows. Surviving details of drapery are not very extensive.

One of the larger heads is painted with the omission of pupils

in the eyes and it may well be that here is a representation of Samson as he is struck with blindness. It is a majestic head and it is quite in keeping with the medieval artists' sense of reality in symbolism that Samson should be so represented. The fact that the glass is colourless instead of the usual light mulberry colour strengthens the supposition.

In examining glass of this kind one invariably experiences surprise and satisfaction when one detects broken fragments which belong to one another. In one instance surprise was no less felt when two innocent looking halves joined together to form the brazen head of a demonic creature. Some satisfaction will doubtless be felt in another place on the result of this reconstruction!

There are several fragments depicting pilasters and capitals. Simple architectural settings were often used by artists in the thirteenth century for pauses and emphasis in a design. Fragments of inscriptions are not numerous and in the few examples which were found the sequence of the letters is not sufficient for the attempt of reconstruction of text. The lettering, which is of the simple versal type, was executed in the traditional manner by being scratched out of an evenly painted ground.

The vitrifiable paint is well fired and the quality of the work is excellent, demonstrating as it does a standard of skill in the technique of glass painting which one regards as usual for this rich period of medieval art.

COINS

1. *Styca,* Ethelred II of Northumbria (A.D. 841-844); obv. inscription retrograde, moneyer blundered and uncertain (*per.* Dr. John Kent, British Museum); found in make-up level beneath the floor of post-Suppression building lying to the east of the sacristy.
2. *Rose* or *royal farthing,* Charles I (1625-49); double-arch crown, sceptres almost to outer circle; found between the paving stones of the priest's house.
3. *Halfpenny,* Charles II (1660-85), worn; *obv.* laur. bust, *rev.* ? Britannia seated; found on the upper floor level of the post-Suppression building north of the north transept.

BRONZE

Book or Box Mount (fig. 13)

A class of ornament discussed by D. M. Wilson in *Catalogue of Antiquities of the Late Saxon Period,* vol. 1 and *Antiquaries Journal*

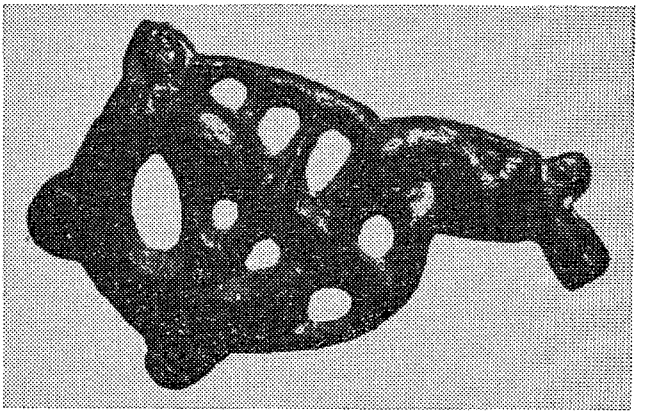


FIG. 13. BRONZE MOUNT (2x)

XLI (1961) 199 ff. It is decorated in the Urnes style and is of eleventh-century date (Moe, O.H., *Acta Archaeologica* XXVI [1955], 17). The openwork mount has been cast in bronze, is slightly curved in section, and is somewhat worn. The overall diagonal measurement is 3.9 cms. It has been held in place by four rivets c. 8 cm. long, three on the periphery of the body and one at the head.

Mr. Wilson writes "The head has an open mouth, the upper lip of which is defined by an incision. The eye is worn away and the body forms a lip which terminates in one corner with a hip joint from which springs a straight leg to interlace with the body and with the tail, which is produced from the hind leg. The closest parallel is a mount without provenance in the British Museum which I have compared with similar objects from Kemsley Down, Kent, from Lincoln and from Peterborough (*op. cit*). The parallel with the unprovenanced object is very striking, save only that the head is seen in profile, whereas in all other examples known to me the head is seen from above.

This, therefore, is an important find of an Urnes style object; it was presumably made in England in the immediate post-Conquest period. It is not surprising to find such an object in the north of England for a few miles from the find-place of this mount the Bishop of Durham had a crozier made for himself, decorated with a similar, but more sophisticated aspect of the same style (Kendrick, T. D., 'Flambard's Crozier', *Ant. J.*, XVIII (1937), 236-42)."

FLINT

1. A number of struck flakes, some calcined, were found in the dark soil overlying bed-rock.

2. Two gun-flints were recovered from the floor of the priest's house.

STONE

1. Fragment of carved stone showing interlace (*v.* Appendix B); recovered from the rubble core of the post-Suppression building to the north of the north transept.

2. Hone of fine grained sandstone; 5½″ (13·5 cm.) long, rectangular in section; from the dark earth above bed-rock beneath the floor of the sacristy.

3. Hone of micaceous schist; 5″ (12·7 cm.) long, and oval in section; also used as a pestle; from the dark earth above bed-rock to the east of the rood screen.

4. Fig. 14, no. 1. Upper quern stone of sandstone, 16″ (40·6 cm.) in diameter. This was found prior to the excavations during the work of demolition, reportedly to the north of "B" Block (byre).

A raised moulding surrounds the hopper and bifurcates towards the rim on either side of a lateral socket. There is no hole for a vertical handle but, as the socket is undercut beneath the moulding, it must be assumed that it was designed to retain an attachment for a handle. Except for the absence of the vertical hole, the stone resembles an unstratified example from Crarae, Argyll (*P.S.A.S.*, XCIV [1960-61], 15), said to be reminiscent of those upper stones with a cross, incised or in relief, which predominate on the W. coast of Scotland. However, a similar stone, decorated with a cross in relief, stood until recently on the Castle steps at Newcastle and they may prove to have had a wider distribution.

JET

1. Part of the plain hoop of a finger-ring of jet; c. ¼″ (6 mm.) thick; flat internally but the outer face is convex with a facet top and bottom; the bezel is presumably broken off. It was found amongst the deposit in the storage cellar and is presumably medieval in date.

BONE ARTIFACTS

1. Fig. 14, no. 2. Spoon or spatula pared from a rib bone; found

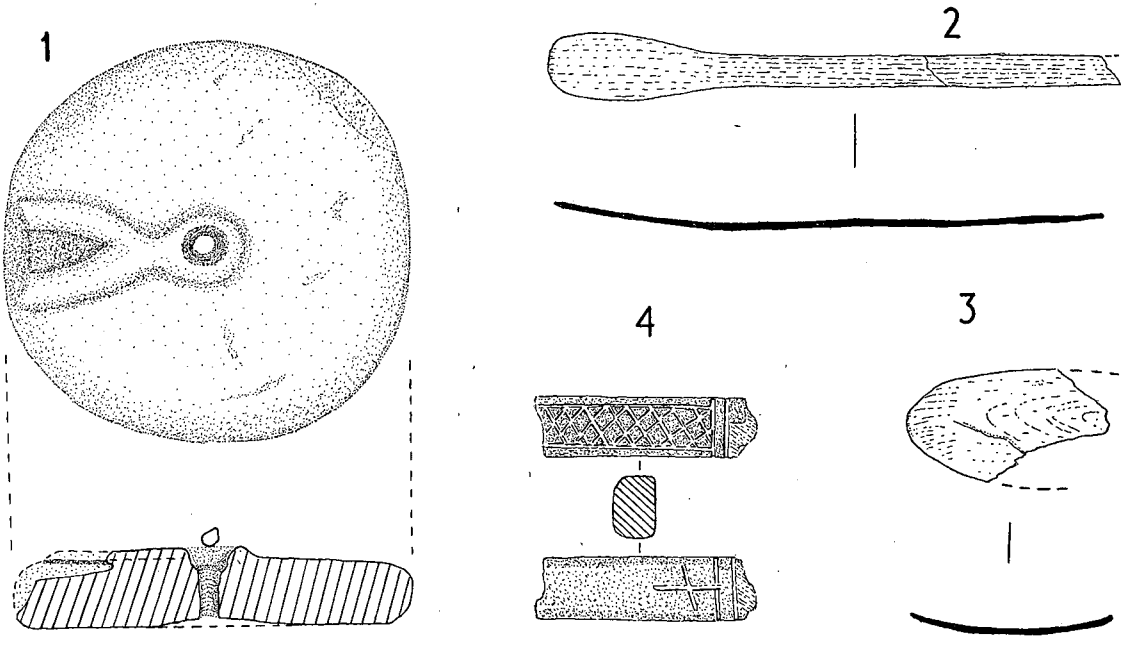


FIG. 14. QUERN STONE ($\frac{1}{8}$), BONE SPOONS ($\frac{1}{2}$), BONE HANDLE (1 : 1)

in the dark soil overlying bed-rock beneath the late wall perpendicular to " B " Block. The object was close to the early hearth so could be associated with this and the native Iron Age/Roman British pottery.

2. Fig. 14, no. 3. Fragment of the bowl of a spoon, found unstratified in fill of the sewer trench.

3. Fig. 14, no. 4. Fragment of a burnt bone handle, decorated on the flatter surface by criss cross incisions within a panel, and on the more rounded surface by a crude cross apparently added after the lateral grooves, which are carried around the handle on both faces and sides. Although decoratively it is reminiscent of some of the early medieval bone work from York (e.g. a knife handle, ? 11th century, *Archaeologia* 97 (1959), fig. 7, no. 12), the present fragment is not pierced in any way to take a tang. It was found in the mixed earth used to level up for the floor of the post-Suppression building and was presumably transported from elsewhere on the site.

CLAY PIPES

Thirty-seven fragments of stems and thirteen bowls were recovered, some in contexts associated with late stone robbing. Only those bearing stamps are listed. I am most grateful to Mr. E. Parsons, University of Durham, for additional observations. The known parallels in the north-east will be found in his paper in *Arch. Ael.*[4], XLII (1962), 231-60.

1. Fig. 15, no. 1. A bowl of south-west country form (Severn, Winchester area), datable to *c.* 1640-70; found amongst the paving of the floor of the priest's house. The maker *W.S.* is not known as yet. The only identical form and mark is from an excavation at Cow-

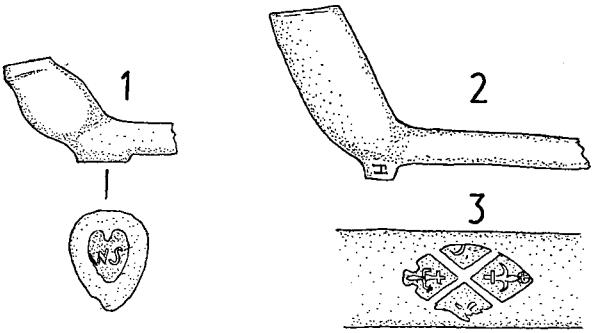


FIG. 15. PIPES (½); STAMPS (1:1)

town, Yorkshire, from a seventeenth-century workshop phase terminating 1675-90 (information E.P.). There is a second bowl of similar form from on top of the same floor in the priest's house where there was later disturbance.

2. A bowl of the same form and size as the above, with only the first letter of the stamp showing within a heart, *G*, possibly *GC* (*P.S.A.N.*[4], III pp. 18, 26); from the floor of the priest's house.

3. Fig. 15, no. 3. Part of a stem bearing a mark which is a variation of a Yorkshire pipe-mark (*A.A.*[4], XLIII, 239), four fleur de lys in a lozenge, the lower one surmounted by a crown, the upper one by a plain cross in a circle; most probable origin is Hull and date 1650-1700; found in the disturbed area to the north of the priest's house.

4. A fragment of a spurred bowl of form 10[b] with a single Tudor Rose on each side (*A.A.*[4], XLII, 247); probably datable to *c.* 1710-1750; found in the mixed infill above the floor of the priest's house.

5. Fig. 15, no. 2. A spurred bowl of form 10[b], marked *H.P.* or *H. R.* (*Ibid*); most probably a local maker (? Gateshead) but name not known (information E.P.); provenance as 4 above.

6. Part of a stem and flattened spur with initials *M.B.*; provenance as 4 above.

7. A spurred bowl of form 8, not stamped; possibly datable to *c.* 1680-1720; found in the back-fill of a recent service trench in area of the priest's house.

8. Part of a stem with a balance mark in rouletting; probably eighteenth century in date; found in the mixed levelling material beneath the modern road surface.

BUILDING MATERIAL

(a) *Lead Roof-Clips*

Twenty-five strips of lead, generally not more than 0·2 cms. thick, between 3 cms. and 6 cms. wide, and up to 11 cms. long, were recovered from various parts of the excavation. A few are incomplete specimens, but most of them have two nail holes, sometimes with iron nails still in position and located laterally towards one end of the strip. In two instances, both narrow strips, the nail-holes are placed lengthwise at one end. It has been demonstrated, from similar strips found at Newminster, Northumberland, and from the current practice followed on repairs to the roof of Durham Cathedral, that such strips of lead were used as roof-clips to hold together sheets of roofing lead (*A.A.*[4], XLII [1964], 163 and 171). Most of the strips from Tynemouth were folded into the shape required to

perform such a function, others had been straightened, perhaps during deliberate dismantling. The major concentration of clips came from the floor of the sacristy and in the rubble overlying this floor. Two were found by one of the hearths in the floor of the post-Suppression building lying to the east of the sacristy, where re-smelting of lead had also taken place.

(b) *Lead Cawmes*

These were widely scattered, many in areas of recent disturbance. Some fragments were recovered from the floor of the sacristy, and a large number in the deposit of window glass (above). Others, partly fused with heat were found with runnels of lead on the floor of the post-Suppression building.

(c) *Iron Nails*

A number of iron nails, rectangular in section with flattened heads, were found near the late ? forging hearths in the floor of the priest's house and in the post-Suppression building to the east of the sacristy. These nails had been drawn and it is possible that they were in process of being straightened for re-use.

(d) *Stone Roofing Slates*

Fragments were widely scattered, mainly in the make-up material.

ANIMAL REMAINS

The general alkaline conditions aided the preservation of a large quantity of bone, but there were few areas where association was assured. Therefore only the bones from selected provenances were submitted for examination. Shortage of space unfortunately prevents the publication of detailed reports. These have been lodged with the finds in the Museum of Antiquities.

A. *Summary of Report on Animal Remains*

G. W. I. Hodgson

Identifications were made on the basis of direct comparison with defleshed specimens.

1. From the occupation area within the small round hut with Romano-British pottery. Pig (sus) assumed rather than goat; Sheep (ovis); one bird bone (Tarsometatarsus).

2. Associated with native and Romano-British pottery from the cooking hearth beneath the post-Suppression wall. Pig; Sheep; Bird bone (Tracheal bony rings).

3. From the floor level of the medieval byre. Ox including horn cores; Pig, teeth only.

4. With medieval pottery in the storage cellar. Pig; Ox; Sheep; Bird bones.

5. From amongst the material forming the raft for sacristy floor. Ox; Bird bones, probably of Domestic Fowl (Gallus gallus) —identified by C. S. Cowles, British Museum (Natural History).

B. *Marine Shells and Fish Bones*

I am indebted to Dr. J. A. Allen, Dove Marine Laboratory, University of Newcastle upon Tyne, for his comments on the fish vertebrae and a sample of the numerous marine shells from the site.

1. *Littorina Littorea* (common periwinkle)

These shells occurred mainly in clumps in the dark soil overlying bed-rock, or in the hearths for which an Iron Age/Roman British context is proposed. Presumably they had been dropped where eaten and subsequently trampled in. A large number were also found on the floors of the priest's house and the byre, and amongst the pottery deposit in the storage cellar.

2. *Patella vulgata* (common limpet)

These were found more sparsely in all contexts and also as fragments amongst the poor mortar of the post-Suppression buildings, together with slivers of mussel shells.

3. *Mytilus edulus* (common mussel)

Mainly fragments found in all contexts.

4. *Ostrea edulus* (oyster)

Found in the material for the raft of the floor of the sacristy and on the floor of the byre. As far as I know there is no record of living oysters being found in the vicinity of the Tyne. The nearest commercially fished beds were in the Forth and these were largely fished out by 1875—but known to be used for food in prehistoric times (Millar, Scottish Oyster Investigations, *Marine Research* No. 3 (1961)). The nearest bed to the Tyne is at Holy Island but so far as is known this was not a commercial bed.

5. A number of fish vertebrae were found, two almost certainly from cod and some of the remainder probably from salmon, but too damaged to be absolutely certain. They came from amongst the refuse on the floor of the byre, from amongst the stones in the raft for the sacristy floor and from the refuse and pottery tip in the storage cellar.

APPENDIX A

A Note on the Spanish Battery (fig. 16)

The main references relating to the history of the fortifications on the riverine headland to the south of that which carries the priory and castle will be found in *Northumberland*, vol. VIII and *Arch. Ael.*[2] XVIII (1895-6). Initially Tudor defences, they provided an interesting illustration of the changing military demands which brought about an extension of the existing medieval defences in the form of outworks designed specifically to command the harbour and river entrance. Less obviously they marked the first great inroad into the monastic buildings as a convenient source of building stone. Sea erosion, stone robbing and later occupation had ostensibly erased the major portion of these outworks by 1847, and by 1895 they had "entirely disappeared". The following field observations have been prompted by the inevitable proposals for development of the site, now that a modern coastal battery has been dismantled, and are made in the belief that more may remain of the early fortifications than is generally supposed.

In January 1545, Sir Richard Lee was instructed to view the state of Tynemouth and set in hand works that might be thought necessary to strengthen the defences. He took with him two Italian experts in fortification. Work on the additional defences appears to have been commenced and a body of Spanish mercenaries were probably placed in the new works. In 1560 Lee was again instructed, now by Elizabeth, to look at Tynemouth on his return from Berwick.[1] One of Lee's original plans survives, annotated in Italian, showing outworks to be built in front of the present castle and a battery position on the lower headland, connected by a system of walls to the castle precinct.[2] That this was the plan broadly put into operation would seem to be confirmed by a later Elizabethan plan (to which reference has already been made in the body of the report), whereon very similar though not entirely identical fortifications are shown.[3] The subsequent history of the riverine defences cannot concern us here, except to note that they varied over the centuries, and reference must be made to the works already cited and the plans therein.

On the ground (fig. 16), the grass grown gully between Colling-

[1] Note his absence from the new fortifications at Berwick. *Ant. Journ.*, XLV (1965), 81.

[2] Plan reproduced in *A.A.*[2], XIX (1898), 68.

[3] Plan reproduced in *Northumberland*, VIII, plate XII.

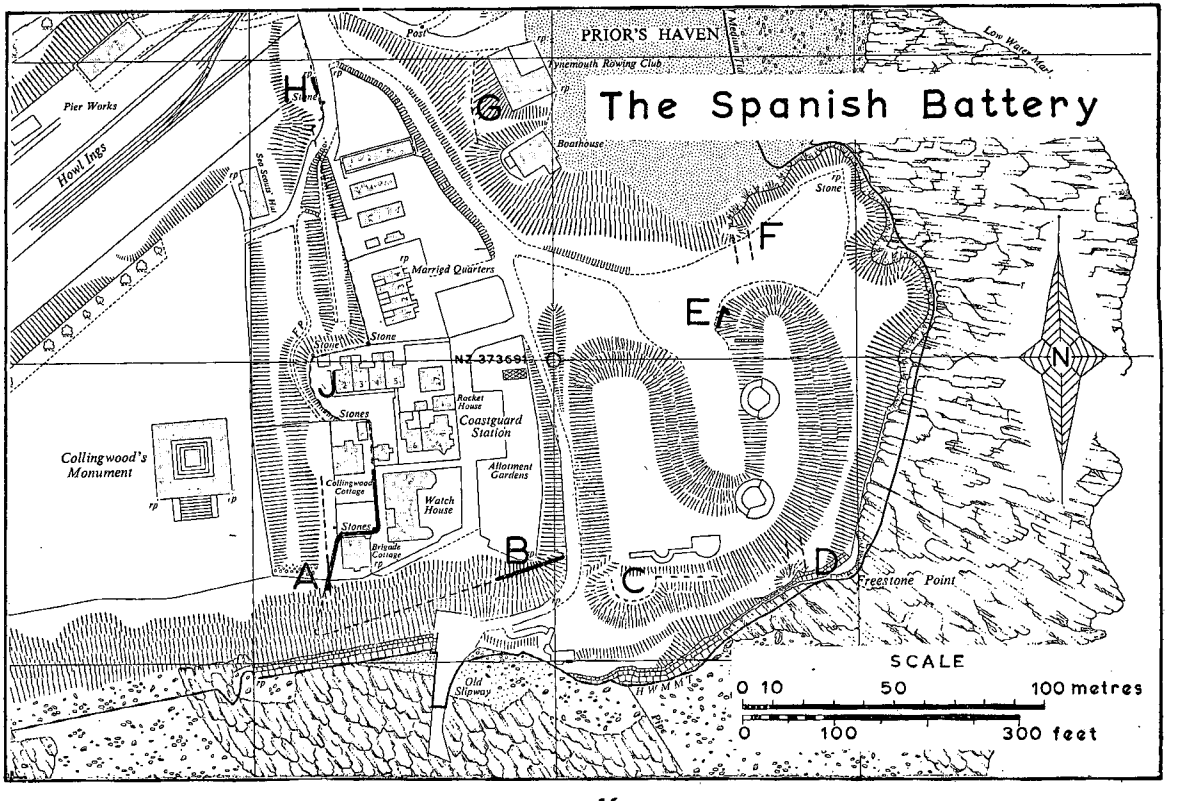


FIG. 16

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wood's Monument and Collingwood Cottage would seem to have formed part of the "fosa" (*sic*) of Lee's plan, or the ditch line of the later Elizabethan plan, so marking the western extent of the outworks. The eastern extremity on both plans is marked by a ditch-like feature, or natural cleft, which traverses the eastern end of the headland. This is an area lately occupied by deep, modern gun emplacements, but both north and south ends of the cleft can be seen today in the cliff faces fronting onto Prior's Haven and the River Tyne respectively (F and D). The same feature appears for example on a map of 1741 which, incidentally, shows a large, roughly star shaped enclosure taking in most of the headland, and also on a drawing of the Spanish Battery made in 1886 by C. J. Spence, where it is overlaid by a later fortification, much reduced in size.[4] Within the area demarcated by these two ditches, short stretches of masonry can still be traced on the surface or by probing. A salient of masonry was noted recently by Mr. M. Preston on the north side of the headland during the demolition of the modern emplacements, but this was most probably part of the late battery illustrated by Spence (E). On the river frontage remains of a rubble core, some three and a half feet thick, having an outer ashlar face with a pronounced batter, still exist by the present allotment gardens (B). Although cliff falls have removed its westerly progress, this can be projected with tolerable certainty to a point below the Brigade Cottage where, beneath modern ground level, a massive piece of masonry obtrudes from the cliff face (A). From this point the facing can be traced northwards into the re-entrant forming the boundary of the garden of Collingwood Cottage, where it still serves as a revetment for the raised platform on which stands the present watch house. This would appear to be the line followed by the enclosure shown on the 1741 plan, which diverges somewhat from the line of the fortifications as shown on the Tudor plans and may represent later amendments. However, at that point where the masonry projects from the cliff face there is demonstrably more than one period of construction visible (plate IX, 1), the earlier being composed of massive facing blocks excellently dressed. These run at a slightly different angle and could well form part of the wall alignment shown on the Tudor plans lying to the inside of the ditch. To the north of Collingwood Cottage a small but unusual bastion-like feature, faced up with modern brickwork, supports the modern houses (J). The circular shape can hardly be fortuitous and it occurs at a point where a curved face is shown on Lee's plan and a semicircular projection on the Elizabethan plan. This being the

[4] Reproductions in *A.A.*[2], XVIII (1895-6).

Fig. 1. Two period masonry, Spanish Battery

Fig. 2. Spandrel, Collingwood Cottage

case, it is not difficult to see in the line of the modern wall and grass covered mound to the north one of the original linking walls leading to the castle precincts (H).[5] Similarly, a bulge occurs on the cliff face to the west of the present road leading to the site of the Lifeboat House, again at a point where a like feature is shown on the Tudor plans (C). All told, the chances of determining the character of the initial Tudor fortifications may not be so very remote.

At all points where masonry can be traced it contains fragments of worked stone, presumably from the priory. The slab bearing the paired beasts, described by Miss Cramp in Appendix B (plate X), was recovered from the stretch adjacent to the allotment gardens, whilst the massive spandrel bearing the monastic "three crowns" lies at the moment in the garden of Collingwood Cottage, having been recovered previously from the bank side (plate IX, 2). Perhaps some exploration could prove fruitful on more than one score before further developments take place on the headland.

APPENDIX B

Two Newly Discovered Fragments of Anglo-Saxon Sculpture from Tynemouth

Rosemary Cramp

These fragments were discovered at Tynemouth in the course of Mr. Jobey's excavations. Both had been re-used as building stones. No. I had been incorporated into the wall of the Spanish Battery, No. II was from the rubble core of the medieval Sacristy of the Priory.

No. I (plate X) is of local sandstone and in its incomplete state its dimensions are: greatest length 1′ 4″, greatest height 9½″, greatest depth 4″. Only one carved face survives and it is impossible to tell from the condition of the piece whether the fragment was once part of a free-standing cross, or of an ornamental panel which had been part of the decoration of a stone church. On the whole it seems more likely that it was part of a cross, since other occurrences of this motif in sculpture are found as individual panels on cross shafts.[1] Moreover, it differs only slightly in its dimensions from its two nearest analogues: on shafts in the parish church at Aycliffe (plate

[5] To the north of this point the remaining traces of these connecting walls would have been removed when the present N. pier was built *c.* 1860.

[1] *Durham Univ. Journ.* LVIII, 3 (June 1966), plate 1.

XI, 1) and St. Oswald's Church, Durham. This piece is very unweathered; even the punched outlining on the animals' bodies is clear, and so it could hardly have stood long out of doors. The occurrence of this motif of interlaced beasts at Tynemouth throws a very interesting light on the history of the pre-Conquest site. It seems therefore worth discussing in some detail.

The Tynemouth design shows two "S" shaped animals with flat double-outlined bodies. The outlining runs from behind the animals' heads to a "V" shaped terminal on the back leg. The back legs are hardly less wide than the body of the beasts and the paw of the one back leg that can be seen is well shaped with three claws. No front leg survives on this piece, but on analogy with the parallels mentioned above one could have been raised in front of the backward-twisted head. The heads have ear-lappets and twisted lips and the eyes are lentoid. The ear-lappets and tails of the animals pass over and under the bodies and fill the spaces with a neat rectangular twist and a simple pointed knot. It is not possible from the fragment that remains to be certain of the exact manoeuvres of this interlace.

I have discussed elsewhere[2] the two remarkably similar compositions—one on a cross from St. Oswald's, Durham, *Greenwell Catalogue* XV, the other on a cross at Aycliffe, *VCH Durham*, Vol. I., Pl. facing p. 220, and the relationship of these motifs to a cross fragment from Lindisfarne. On this new fragment the placing and stance of the animals, and the head forms with distinctive lappets and twisted lips, are identical with the two crosses from County Durham. Moreover the way in which the ear lappets and tails are joined is also the same—where it can be traced. One minor difference is that the Durham/Aycliffe pair are linked by two triangular twists and one diamond shaped, while the pair at Tynemouth is joined by a simple Stafford knot at the bottom and a diamond twist in the middle. The only other difference is that the back leg is thicker in relation to the body, on the Tynemouth beast, than it is on the Aycliffe and possibly on the Durham example. (The St. Oswald's Cross is so worn that a very erroneous impression of the beast is given at first glance). In the form of the back leg and its outlining the Tynemouth animal is very like that on the Lindisfarne stone cross.[3] On the other hand the Lindisfarne panel shows only one animal, quite differently composed and with a markedly different head. (Although the composition of the Lindisfarne panel and the later group we are discussing obviously derive from manuscript art such as animal panels in the Lindisfarne Gospels, or fol. lv., of the MacRegol Gos-

[2] *Op cit.*, pp. 119-124.
[3] *Op. cit.*, plate 2b.

Anglo-Saxon sculptured stone from Tynemouth

pels, the type of the head is a useful criterion of date: the looped lip is a Viking characteristic, the squared off muzzle a characteristic of the earlier insular art.) The resemblances of the Tynemouth, Durham and Aycliffe pieces are so striking that they must come from the same workshop, if not from the hand of the same carver. I have suggested elsewhere, that these pieces should be seen as part of the revival of stone architecture fostered by the Community of St. Cuthbert when they moved to Durham in 995. I have also cited the historical evidence for linking Aycliffe with Durham at this period.[4] The immediately pre-Conquest history of Tynemouth is obscure, but in stories of the rediscovery of the body of St. Oswin it would seem that the site had been taken over into lay hands. Moreover in 1070-72 the church at Tynemouth had a notable tower and this probably links it with other late Saxon towers between the Tyne and Tees, where there is evidence for a continuing Christian community.[5] I think too that, despite the lack of written evidence, one can see quite clear art-historical links between Tynemouth and Durham. The cross from St. Oswald's Church, Durham, is in fact fascinatingly linked with Tynemouth material other than the newly discussed fragment. Below the animal panel on the St. Oswald's Cross is a composition of four pairs of double-stranded Stafford knots, facing alternately right and left, and one narrow side of the cross shows a panel composed of single-stranded twists, linked by long diagonals. Exactly the same patterns on the broad and narrow faces are found on a Tynemouth fragment now in the Collection of the Society of Antiquaries at Newcastle upon Tyne.[6] In fact the newly discovered animal panel and this fragment of plait-work could well have belonged to a single Tynemouth Cross, of which the cross head could have been the free armed head with continuous interlace now also in the collection of the Museum of Antiquities, Newcastle.[7]

It was further remarked by the older antiquaries that a panel on the other broad face of the St. Oswald's Cross could be paralleled on the Monk's Stone from Tynemouth. This shaft, now so worn as to be almost undecipherable, stood once in its socket in front of a farmstead called Monk House, to the north of Tynemouth Priory. It was well drawn by Gibb in Stuart's *Sculptured Stones of Scotland*, 1867, Vol. II, figs. LXXXIII and LXXXIV. His dimensions agree

[4] *Op. cit.*, pp. 122-124.

[5] *NCH.* VIII, 1907, pp. 41-44.

[6] S. S. Carr, "The Early Monumental Remains of Tynemouth", *Arch. Ael.* 2nd series, XXV, p. 121, fig. 2.

[7] The Cross-head is illustrated in *NCH.* VIII, p. 134, fig. 2. The interlace shaft fragment was found in front of the south-west gateway of the large magazine, due south of the west front of the ruins. It was re-used.

well with those given by Greenwell in *NCH.* VIII, pp. 131-132: 5′ 6″ to 6′ 0″ high above the socket; 1· 6″ to 1′ 4″ wide; and 1′ 0″ to 9″ deep. The drawings of the ornament also tally very exactly with older descriptions, and what may yet be seen today. One narrow face showed seven paired double-stranded Stafford knots such as have been described above for the other Tynemouth fragment and the St. Oswald's piece. They are divided by a simple roll moulding from a panel of knot work at the tip. The other narrow face seems to be departmentalised rather than panelled and shows three pairs of rearing quadrupeds and above them two birds which, as on the St. Oswald's Cross, are disposed saltire fashion and linked with interlace.

The crossed birds are remotely linked in their disposition with the creatures in insular manuscript paintings but they are only reminiscent—not exact copies. The paired beasts fit most happily into an early ninth-century Northumbrian milieu and may be compared with such crosses as those at Ilkley, Yorks, or Thornhill, Dumfries, and two panels of the frame surrounding the David portrait, Durham B.11.30, Fol. 81 b—a manuscript dated to *c.* 800. It would seem from the evidence that remains, that the taste for carving interlaced creatures was one that the stone carver adopted rather late in the pre-Viking period in England, and then perhaps from the medium of manuscripts. These creatures on the Monk's Stone or the shaft fragments from Lindisfarne Nos. I and II are very different from the organic animals and birds in a plant scroll found on eighth-century crosses such as Bewcastle, Ruthwell or Otley. They are not as precisely linked with Hiberno-Saxon manuscripts as are the birds on the Aberlady Cross, but their closely organised interlace background and rigidly symmetrical disposition is close to the manuscript tradition. The same translation of manuscript or metal-working motifs into stone is to be found on southern English crosses of the ninth century also.[8]

The Monk's Stone at Tynemouth seems most reasonably to fit into the ninth century, and to be linked with Hiberno-Saxon rather than southern English art traditions. It is in fact closely linked with the Lindisfarne sculptural traditions. This cross is obviously closely linked stylistically with the Durham/Aycliffe group of the late tenth or early eleventh century. However whether it served as a direct model, or whether it is fortuitously similar because the Community of St. Cuthbert preserved a Lindisfarne pattern book, it is impossible to know. I think we clearly have between the Tyne and Tees Valleys a group of sculptors linked to a common workshop, and we have

[8] This group has been discussed and well illustrated by Frank Cottrill in "Some pre-Conquest Stone carvings in Wessex", *Ant. Journ.* XV, 1935, pp. 144-151.

Fig. 1. Cross shaft from Aycliffe

Fig. 2. Grave marker from Tynemouth

evidence for the copying by later Saxon carvers of earlier standing crosses in this area. For example I have pointed out that the pairs and triplets of figures on the Aycliffe/Gainford group were most probably copied from the nearby St. Andrew Auckland Cross.[9] The carvers associated with the Community of St. Cuthbert could indeed have copied from any available work that seemed congenial to their conservative Lindisfarne derived taste.

Thus we have a local style starting about 995 with their first building activities, which is exemplified by material from Durham, St. Oswald's, the Durham Grave Cover (Greenwell *Catalogue* XXIV), the Aycliffe Cross already discussed, and the Tynemouth fragment. A second phase marked by a deterioration in technique—coarser plaits, and figure carving of a crude type—is to be seen in Aycliffe 2 (*VCH. Durham*, I, Pl. to face p. 220), Gainford, and two shafts from Tynemouth and Ovingham which are very closely linked indeed. These last have been fully discussed in an article in these Transactions.[10]

The authors point out the obvious stylistic relationships of the saint under a branched frame with the figure carving at Aycliffe and Gainford; they also note that the centaur figure on the back of the Tynemouth piece is paralleled in the later cross at Aycliffe. One might also note that the curious loose ring floating under the centaur's feet is typical of later Aycliffe work or the chapter house cross heads at Durham, which I would date later than St. Oswald's.[11] One could moreover see a direct link between the curious beasts and trees surrounding the figures on the Ovingham/Tynemouth crosses, and the Monk's Stone with its beasts and humans enmeshed in scrolls. Figures enmeshed in scrolls are very uncommon in the early Saxon period, and the Ovingham/Tynemouth figures are unique among late Saxon carvings.

The other side of the Ovingham shaft shows a hunting scene, with a curiously elongated figure and animal lying in a different plane. The style of figure drawing is not unlike some eleventh-century pieces at Chester-le-Street, and this type of composition can be seen on many stones in Scotland, for example Inchbrayock, Perthshire. However one would like to have more plainly the hunting scene from the Monk's Stone before one presumes too remote an origin for the Ovingham panel. Two other cross-heads have been found at Tynemouth in past demolition of the site. One illustrated

[9] *Op. cit.*, Note (1) p. 124.

[10] F. Hastings and T. Romans—"Two Fragments of pre-Norman Cross Shafts from Ovingham Church", *Arch. Ael.* 4th series, XXIV, 1940.

[11] Even this odd feature perhaps derives from insular manuscript art. The MacRegol Gospels have background fillings for animal or bird panels of just such loose pellets and rings. See F. Henry, *Irish Art* I, 1965, Plate N.

NCH. VIII, fig. 1. p. 134, is a quite competent version of the late bossed type with free ring interlace surrounding the boss. This is now in the possession of the Museum of Antiquities, Newcastle. The other, a rather cruder piece of work, also has central bosses and a free armed head; it is in the possession of the Society of Antiquaries of London.

The other newly-discovered fragment from Tynemouth (plate XI, 2) fits well into the context of the site in the immediately pre-Conquest period. It is of light yellow sandstone and seems to be part of the top of a grave marker of unpretentious type. Its greatest width is 9″, the greatest height 6″ and depth 4½″. It is carved on both sides. On one side, set within a simple picked outline moulding, is a crude triquetra knot; in the centre what could be either a dividing panel or a version of a cross-head. On the other side parts of two picked outline frames survive, probably both of them containing a triquetra knot. In this the piece closely parallels the layout of a grave marker from Warkworth.[12]

Such upright grave markers are known from Irish sites where they can be used together with a recumbent cruciform slab.[13] In northern England, Scotland and Ireland such small cruciform slabs, some upright, some flat, seem to have a continuous history as unpretentious grave markers from the period of the earliest name stones, with incised cross and inscription, until the Norman Conquest. The crude picked technique and shapeless knot of the Tynemouth example would seem to indicate an eleventh-century date for this piece.

[12] W. G. Collingwood, *Northumbrian Crosses of the pre-Norman Age*, 1927, fig. 17e.

Two grave markers of similar crude workmanship from Bothall are in the Collection of the Museum of Antiquities, Newcastle upon Tyne.

[13] P. Lionard, "Early Irish Grave Slabs", *P.R.I.A.* 61, Sect. C.5, 1961, Plate XXVI. 2.