VII
The Conservation and Study of the Eastern Arm of Tynemouth Priory Church

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The headland which carries Tynemouth Priory and Castle has a long history of occupation reaching back to the pre-Roman Iron Age (Jobey 1967). There is documentary evidence, summarised by Craster (1907) and Gibson (1847), for a monastic site here in the pre-Norman period and some of the structures excavated by Jobey (1967) may be associated with this community. Work on a substantial Norman church probably began in the 1090s and was sufficiently advanced for St Oswin's relics to be translated into the new building in 1110 (Cambridge 1994, 159–60; Thurlby 1994, 181–3). Most of the standing fabric, however, belongs to the Early English and subsequent periods, and its structural sequence has been the subject of several major studies (notably Craster 1907; Knowles 1910; Hadcock 1936; Craster and Hadcock 1937; Pevsner 1992). The eastern arm was re-built in *c.* 1190 and, in the fourteenth or fifteenth century an upper chamber was constructed on top of the presbytery and choir. In the mid-fifteenth century the Percy chantry chapel was added to the east end. The priory was itself enclosed within a royal castle which survived as a working building after the Dissolution. The nave of the church then probably continued in parochial use until 1668 when it was replaced by a new building in North Shields (Craster and Hadcock 1937, 218). Whilst the upper (or 'great') chamber may have continued for a short time after the Dissolution the east end of the medieval church was partially demolished in the 1660s and is now largely ruined. The presbytery forms the most visually significant of the surviving remains, its east and south walls still standing to a considerable height.

The priory stands in a most exposed situation overlooking the North Sea and battered by "the great wynde" which has often caused considerable damage, as the King's commissioners noted in 1539 (PRO E101/485/16). Much of the stonework appears from the ground to be extremely weathered to the point where the actual structure would seem to be at risk. Having no detailed condition survey or other office records of conservation work on the ruins within living memory, English Heritage decided to record both elevations of the east and south walls of the presbytery by photogrammetry and then to scaffold them throughout. The resulting photogrammetric drawings at a scale of 1:50 were then used to fulfil two requirements. They provided a basic record for the archaeologist to note any further details not picked up by the photogrammetry and any details revealed during actual works, and they allowed the architect to specify which stones should be replaced and which areas of masonry needed repointing. Following thorough inspection stone replacement and repointing were carried out during 1996 and 1997. Some of the individual stones were found to be extremely weathered; if proof of this were needed, the extremely hard mortar from the 1913–19 repointing was found to stand as much as an inch proud of the surface of the stones in many areas. A report on mortars, repairs and the method statement justifying the extent of the new masonry is lodged in the English Heritage archive. Examples of severely weathered stones are shown below in fig. 13 and an example of the new photogrammetric elevation drawings is in fig. 15. The extent of the new stone replacement is shown on this drawing and in the photograph in fig. 12.

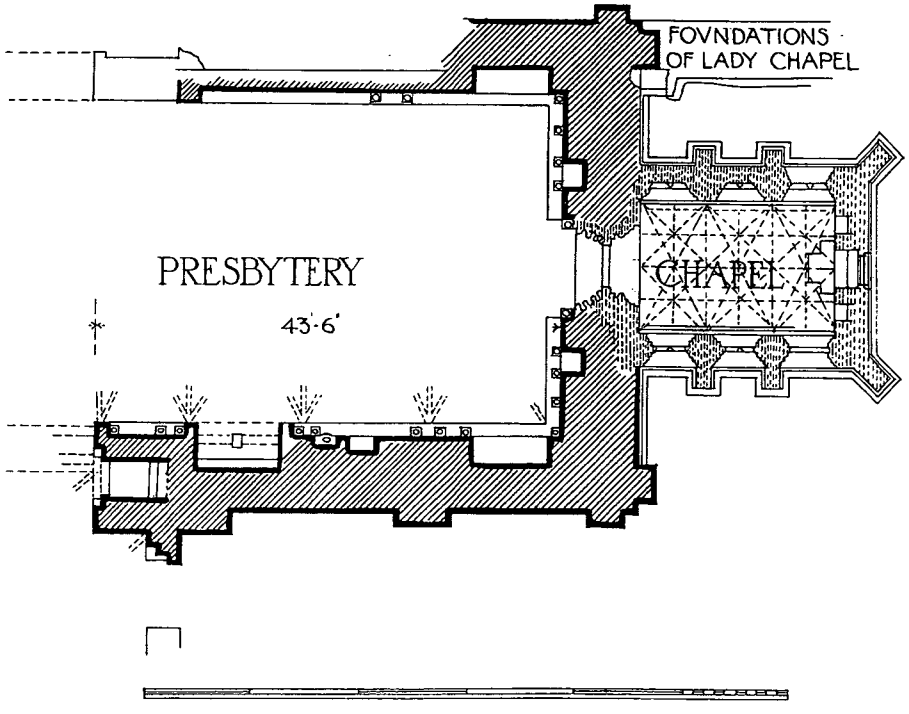

Fig. 1 The presbytery, part of H.M. Office of Works plan of Tynemouth Priory church dated March 1913.

During this process of renovation, one of the authors (ML) was asked to examine the east end noting anomalies and any features of architectural interest, and to construct an architectural and archaeological analysis of the eastern arm of the church, utilising the elevation drawings which were produced for the project. This paper summarises the results of that work, and draws attention to structural anomalies and disruptions which have emerged from this, the first close-up examination of the surviving walls since they were taken into guardianship. The detailed results of ML's work are also lodged in the English Heritage archive.

THE PLAN OF THE PRESBYTERY (Fig. 1)

In determining a plan of the present east end some reference must be made to the earlier structure. The plan of the Norman church as published by Craster (1907, 136) had a nave of seven bays, a tower crossing with short apsed transepts to either side, a two bay choir apse with an ambulatory, two radiating apse chapels, and an extending apse-ended east chapel. This plan was further developed by Knowles (1910) but the portion east of the nave was there marked as "assumed".

Knowles claimed that his plan was based on his excavations, supplemented by information from investigations by R. Johnson in 1887 of the eastern apse chapel. He said that: "The discoveries clearly demonstrated the plan of the presbytery and its eastern termination. . ." (1910, 6). He admitted, however, that no plan of Johnson's work existed. He further explained that his marking of the ambulatory apse as containing five bays depended on parallels with Winchester, Norwich, and the chapel in the Tower of London. Using such

southern parallels to deduce the plan of a northern building may be questioned, even though Tynemouth was a daughter-house of St. Alban's Abbey.

Knowles' elevations of the Romanesque church must also be treated with caution. Many of the anomalies evident in the visible structure have been "tidied up" on his drawings, which present a clean well-ordered appearance. Most writers subsequently seem to have followed Knowles' plan and elevations, though it would seem that no reliable plan currently exists of the Norman east end, or of the features to the north and south of the later presbytery.

The Norman eastern arm was remodelled in the late twelfth and early thirteenth centuries to a choir of five bays and a presbytery of three bays, with a linking bay between the two (fig. 2). Craster (1907 pl. VIII) shows some ill-defined masonry north of the presbytery but almost nothing at all to the south. A number of authors, following Knowles, have however depicted a transept to the north of the linking bay, giving access to the Lady chapel on the north side of the presbytery.

To the south, Knowles' plan has a short square-ended chapel with a rather awkward connection to the presbytery's west end; he claimed that this was based on the surviving Elizabethan plan of the priory (fig. 3). In his view there was no post-Romanesque transept lying to the east of the Norman transepts.

In a later essay in reconstruction, Hadcock (1936, Pl. VI) shows a sacristy, a buttressed chapel and an un-named building to the south of the presbytery. While his depictions are perhaps closer to what is evident on the Elizabethan drawing, his method of linking them to the main church is a concatenation of his own ideas and those of Knowles. He does, however, show a transept flanking the presbytery. Yet the Elizabethan plan very clearly shows no transept at all in this area, nor is there physical evidence for such a feature. There is admittedly a wall stub connected to the south face of the linking bay between choir and presbytery. But this stub is narrower than a (seemingly) corresponding stub on the north of the presbytery; this at once suggests that there was no symmetry in this area but that the two sides were treated differently and never carried balanced transepts.

A circular newel stair survives in the linking bay on the south wall. Immediately to its east there is a large recess in the wall with a double trefoil-headed arch divided by a column. To the south there is a relatively thin wall stub running south, cut by a recent tomb after only a few feet. This stub rises to at least clerestory height and, between it and the start of the choir wall proper, there are the remains of vaulting at the top of the first stage window level. There is also a fifteenth-century three-bayed eastern chapel, the Percy chantry chapel, opening from the centre of the presbytery east wall (fig. 4). A short foundation of wall survives attached to the north-east corner of the presbytery whilst some ill-defined masonry still exists (as depicted in the Craster plan) to the north of the linking bay at the west end of the presbytery.

EARLIER CONSERVATION WORKS

Civil servants with the responsibility for the "weeding" of official documents before they are deposited in the Public Record Office have generally not thought it worth saving much relating to preservation works carried out on ancient monuments. Tynemouth Priory is no exception to this practice. Even after the period when the monument passed into guardianship, little now survives to tell us what has been done to the ruins, if indeed it was ever recorded. Nevertheless, a trawl through the two principal classes of documents in the PRO, namely WO/44 (War Office) and WORK 14 (H.M. Office of Works), has revealed some unpublished information which is worthy of note and can be set alongside material gathered together by Brand (1789) and by Craster in volume VIII of the NCH. This information which is summarised in the next paragraphs provides a background to the 1996–1998 works.

At the Dissolution, when the Crown retained the site as a royal castle, the nave of the priory church was walled off from the transept and

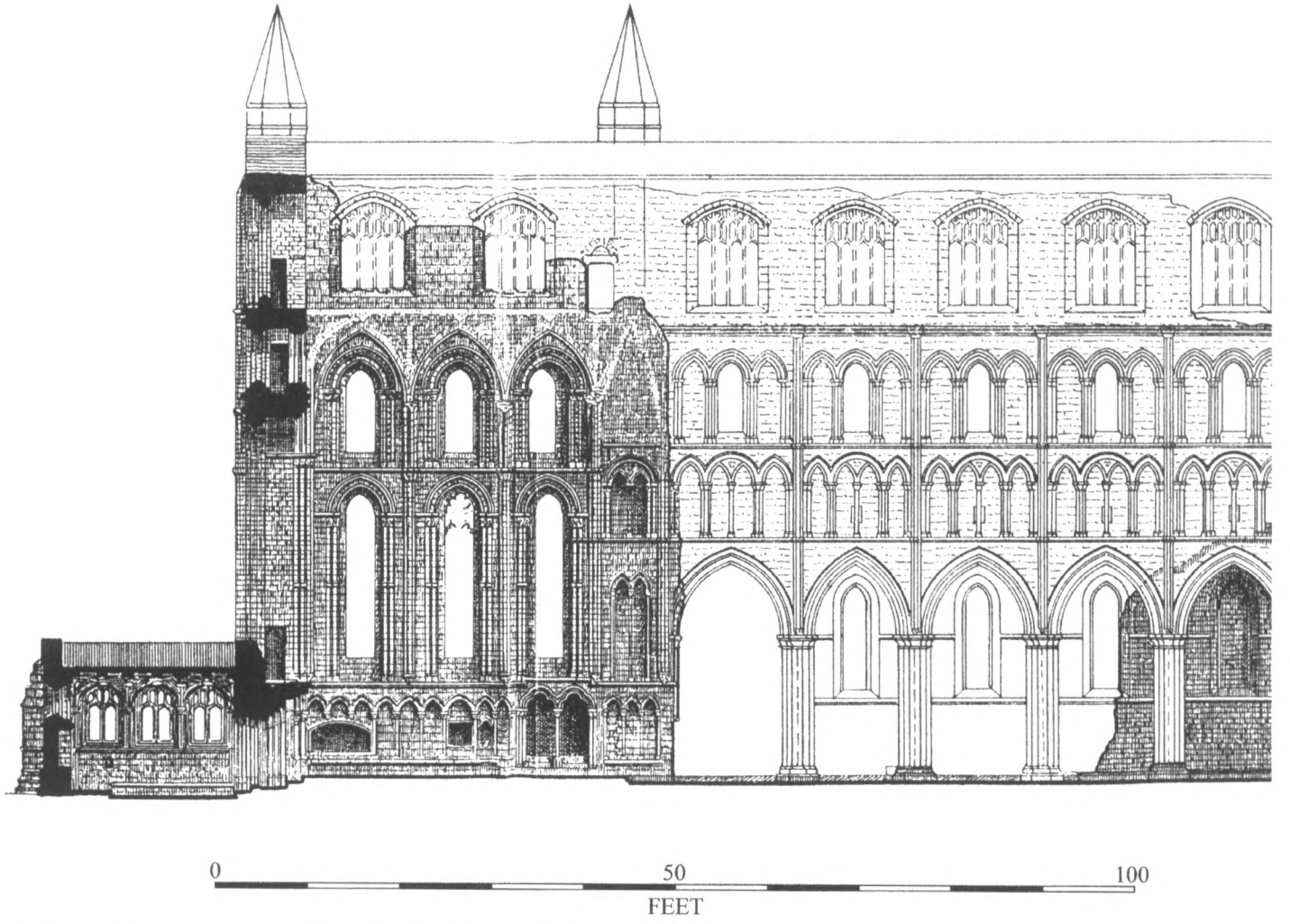

Fig. 2 Part of the reconstruction by Hadcock (1937) of the main east-west elevation of the church.

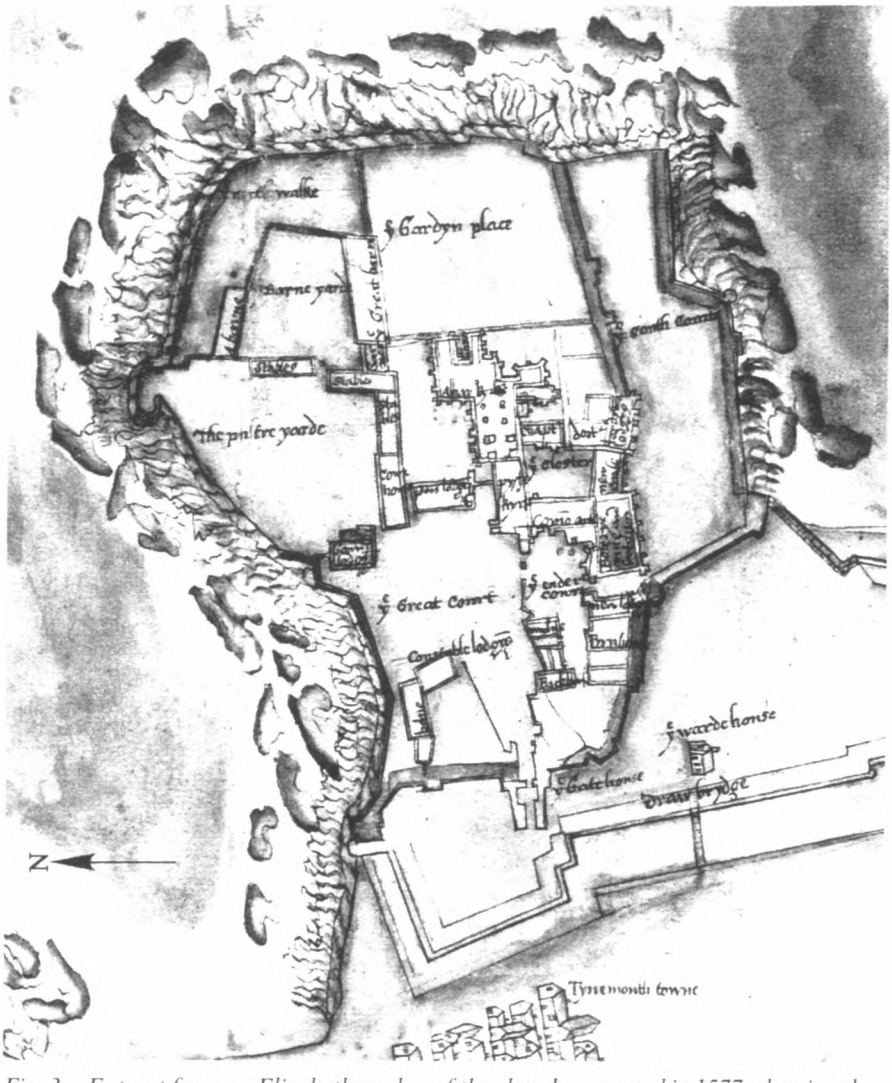

Fig. 3 Extract from an Elizabethan plan of the church, executed in 1577, showing the Percy chantry and the large chapel to the north. (Cotton MS Aug. I. ii. 6). © British Library. Approximate North indication added.

choir, and continued as the parish church until a new one was built at North Shields by *c.* 1670. It presumably also served as a garrison church since in 1546 Sir Francis Leeke, captain of the castle, received £20 for the making of a church whilst, in 1592, 12s. 6d. was paid for making new stalls in the church for the use of the captain. The 20d. left in a will of 1563 for the mending of the south window was presumably also for this part of the former priory church and not the presbytery. There are no Dissolution records to say that the latter was systematically stripped or demolished at that date and the whole priory church still appears as one building on the Elizabethan map of 1577 (fig. 3). The presbytery seems, in fact, to have

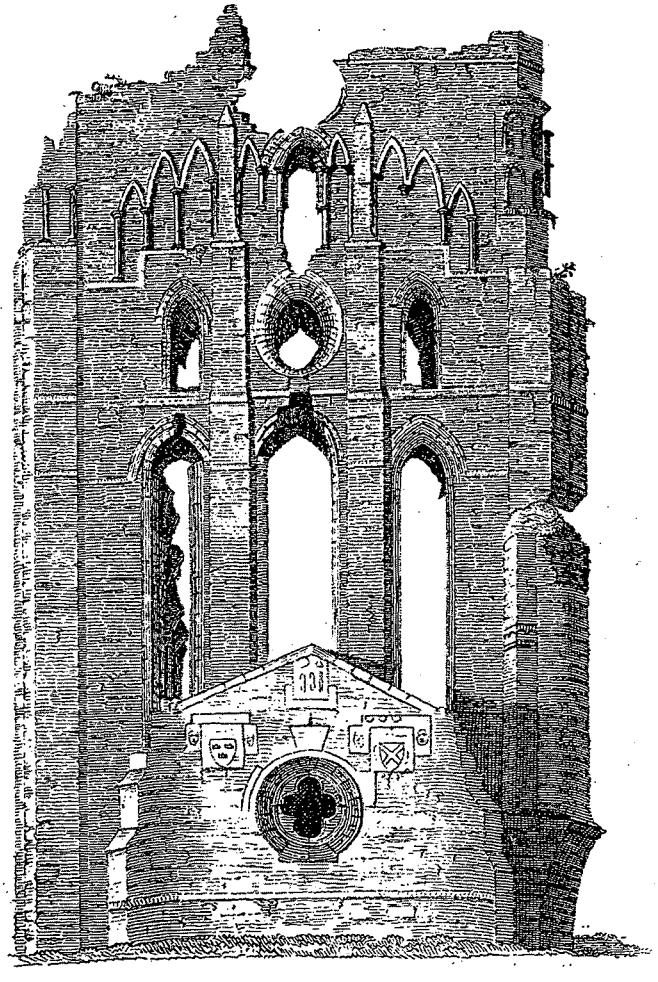

Fig. 4 An early detailed elevation of the east end, published by Brand, 1789.

begun to fall down as much through neglect as deliberate ruination; there was a burial "in the church at Tinemouth" in 1563 and by 1609 the church was said to be "in greate decaie" (Brand 1789, 114–5). By 1635 Sir William Brereton, Parliament's general, described it as "the fairest church I have seen in any castle, but now is out of repair and much neglected" and by 1660 the Cromwellian commissioners reported that it was in ruins, although two years later there was still 'an old chaplain' there. A year earlier the roof of 'a chapel' had fallen in, killing six soldiers who were there to sign an engagement to support Col. Sir John Lambert, but this incident may have occurred in the nave and not the presbytery. Brand, however, also notes: "that the old church in the castle was at this time so ruinous, especially at the east end, and in such danger of falling, that without extraordinary cost it could not be repaired for the use of the garrison; so that the said Bishop [Cosin, 1660–72] was petitioned to grant his licence to pull down the east end of the old church... This appears to have been done: several tombstones still remain in this place which has no roof" (Brand 1789, 120). After the Restoration the castle's governor, Col. Sir Edward Villiers, pulled down some of the ruins in order to build

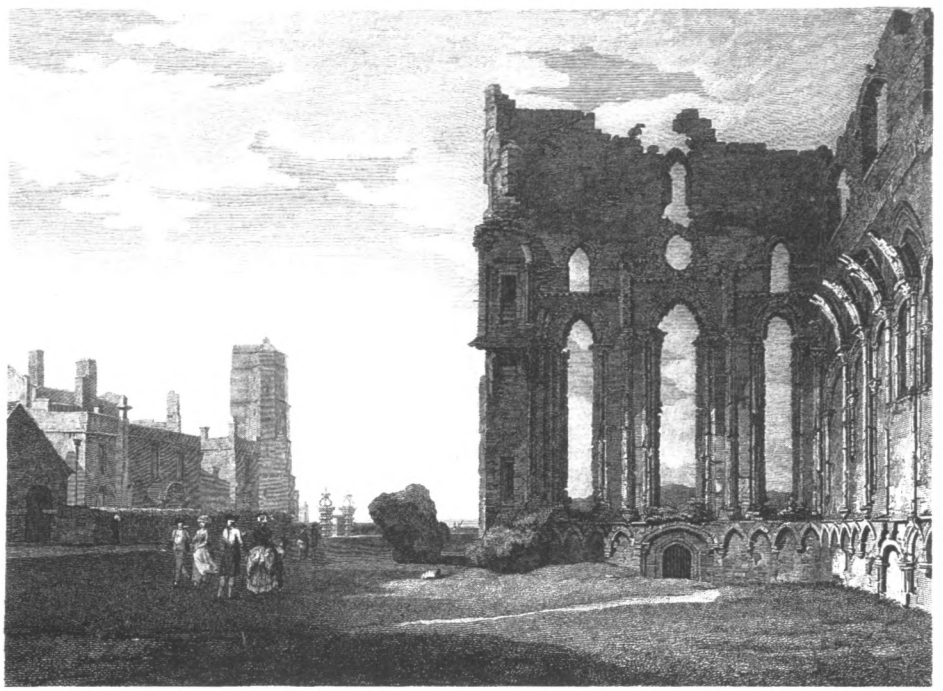

Fig. 5 The west elevation of the east end, with part of the governor's house and lighthouse, by T. Hearne and W. Byrne, 1777. © Society of Antiquaries of London.

barracks, lighthouse and the governor's house (fig. 5). When the lighthouse was demolished in 1898 stones carved with dog-tooth mouldings were found amongst the stones (Adamson 1904, 113). According to Grose (1772), "he likewise stripped off the lead which till then had covered the church. This I was informed by an ancient man who had lived near the spot, and who likewise said a great deal particularly a long gallery had fallen down itself." Notes to a plan of *c.* 1700 (Adamson 1896, 79) also state that the priory is demolished; and so it appears in the Bucks' engraving of 1728 (fig. 6). Only the little eastern chapel, now known as the Percy Chantry (fig. 9), was spared, having been fitted out and appropriated to the parish of Tynemouth. There was a baptism in it in 1675, "ye first baptised in Tinemouth church after it was rebuilded" (Craster 1907, 128). This building continued to be used for services until 1810 when it was taken over by the Board of Ordnance and converted into a powder magazine, in which state it remained for forty years until it was repaired by John Dobson and restored again to the parish. Unfortunately Dobson's own notes and drawings have not survived.

The presbytery ruins feature in numerous paintings and engravings made from all directions including the east; they also formed a backdrop to seascapes by Turner and notable artists of the north-east, beginning with Francis Place's drawing of *c.* 1666–1676 (Knowles 1910, pl. XIV) and culminating in Sir George Gilbert Scott's proposed restoration of the interior, published in *The Building News* in 1873, when Tynemouth was being considered as a possible cathedral church for the new diocese of Newcastle which was shortly to be created out of Durham diocese (fig. 7).

For the soldiers serving at Tynemouth the ruins were, more often than not, a liability which they could have done without. They were railed off as a measure of some respect, though

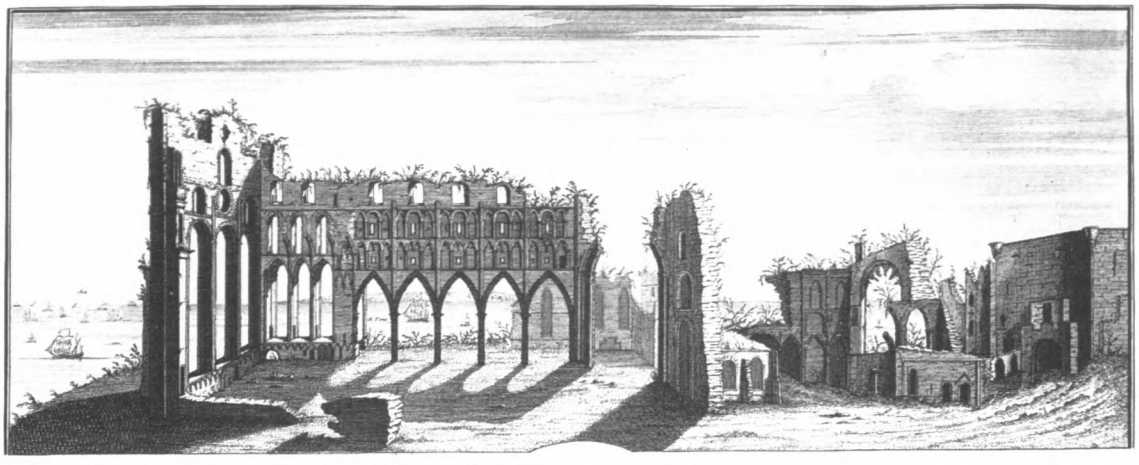

Fig. 6 View from the north by S. and N. Buck, 1728.

the interior became cluttered with gravestones and monuments were removed there from other parts of the site (figs. 8 and 9). But local townsfolk clearly did care about the ruins, as a file in the PRO (WO/44/192) shows. In October 1824 Mr Fred Chapman of North Shields complained to the military about the poor state of the monastery ruins and suggested that, as they were government property, a small amount of money should be spent on their annual upkeep. His letter reached General Mann, inspector general of fortifications, who referred it back to the commanding engineer of Newcastle District; he considered that "a grant of £50 would be sufficient to secure those parts at present in danger" and that local inhabitants should contribute to its future preservation. He also considered the ruins to be the responsibility of the Board of Ordnance, not of the Crown and stipulated that "repairs should be confined to pointing the upper stones of the walls with Harwich cement, and covering the joints with it, which would exclude the wet and frost without impairing the effect of the ruins." General Mann agreed to the estimate for work dated 11 June 1825, and costing £37 12s. 7d. as follows:

60 days of a mason
80 days of a man labourer attending him
30 bushels of Roman cement
3 fodders of stone lime
6 fodders of sand
4 fodders of smith's ashes
1 cwt of wrought iron in cramps @ 35s. per foot.

In July the engineer accepted ten guineas from the Society of Antiquaries of Newcastle upon Tyne to further the repairs which he found more difficult than first expected, "a great part of the ruins which received repair being from 60 to 70ft above the ground." He submitted a further estimate for £16 10s. $8\frac{3}{4}$d, which was accepted, for:

40 days mason at the repairing
40 days man labourer attending
5 bushels of Roman cement
2 fodders of stone lime

The work probably continued until early 1826, in extreme weather conditions as in 1996/97, since the Society of Antiquaries received a letter written on 27 December on behalf of the masons employed on the ruins "begging for something to drink" although the writer had told the masons he thought it was a "dry source."

There are no further written references to works to the presbytery in the nineteenth century apart from Dobson's restoration of the Percy Chantry and the clearance of the interior of the church at about the same time under the direction of Capt. Andrews, commandant of the garrison (*Illustrated London News* 4 Sept.

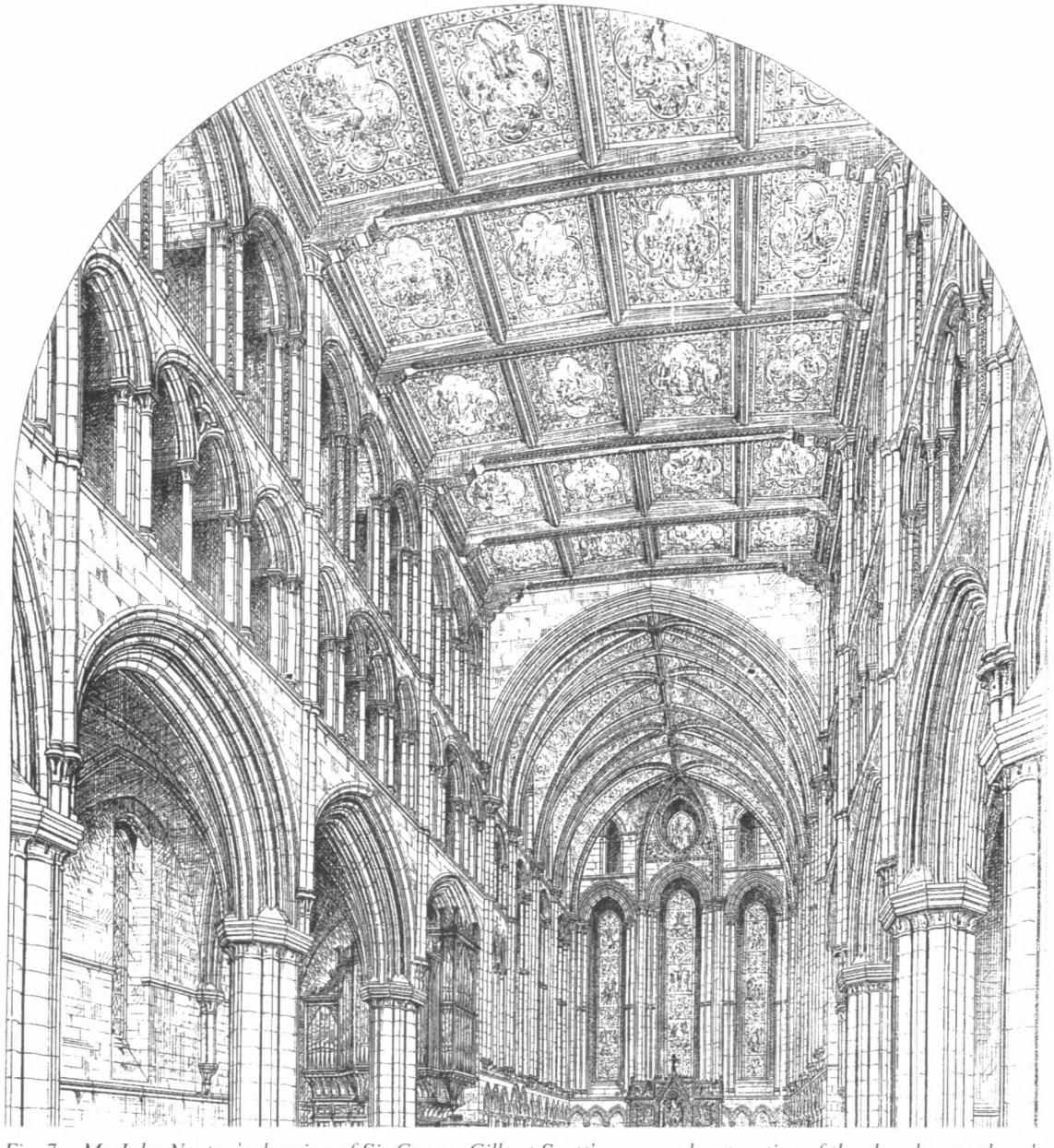

Fig. 7 Mr John Norton's drawing of Sir George Gilbert Scott's proposed restoration of the church reproduced from The Building News, *19 July 1878, where the editor wrote: "A careful study of the remaining portions, with the aid of old drawings showing the church as it stood in the last century, enabled him to trace out the ancient design with great certainty" (p. 52).*

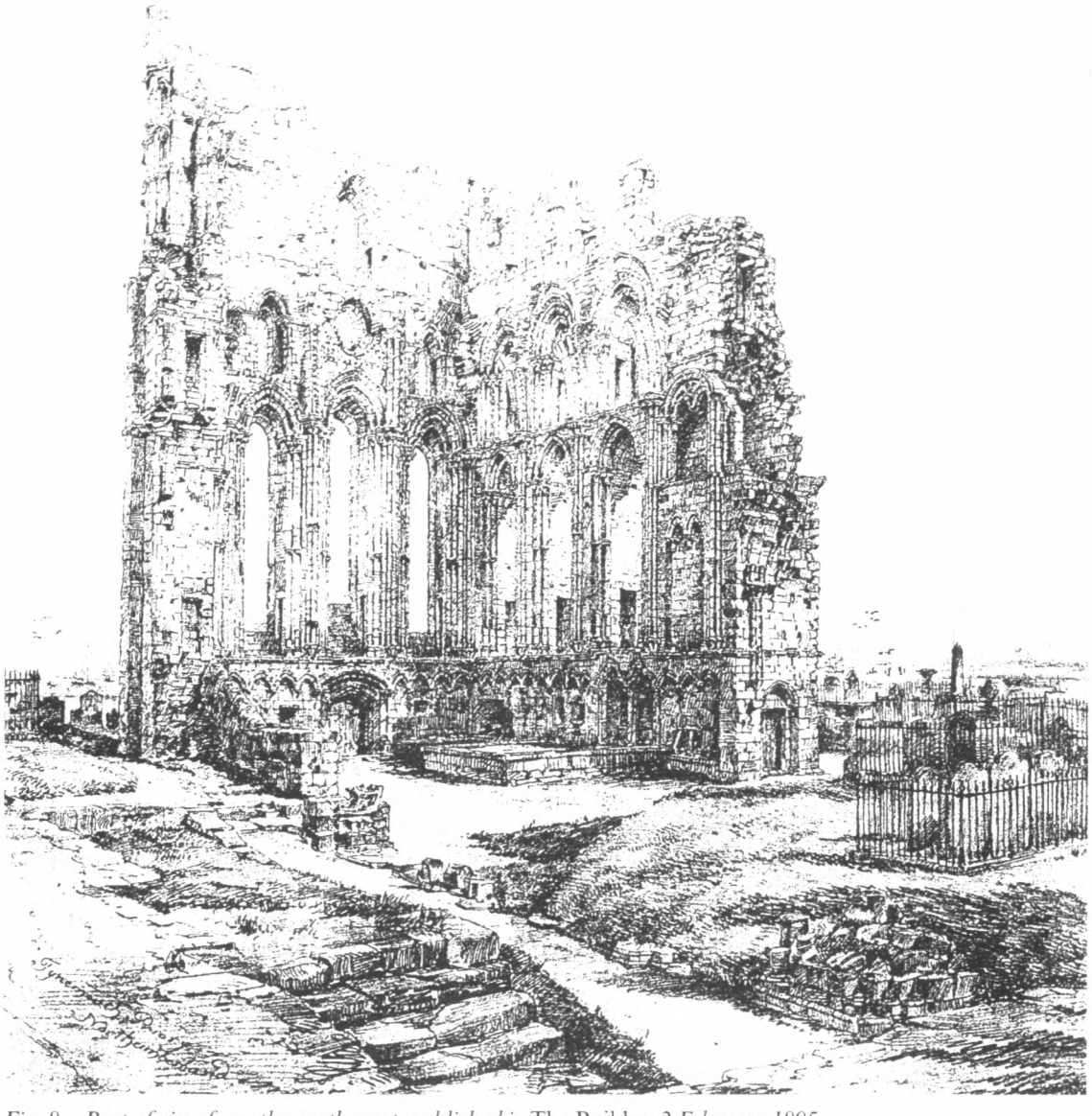

Fig. 8 Part of view from the north-west, published in The Builder, *2 February 1895.*

1852, 180); nor can the original deed of guardianship be traced, whereby the ruins and a large area of the graveyard were transferred from the War Department to the Office of Works in 1905 (WORK/14/759). In 1906 the Office informed the town clerk of North Shields that "certain necessary repairs would be carried out," and noted on file "that the building requires repointing throughout and that some earth and grass etc on the tops of the walls should be removed and replaced with cement"; this was to be done in the next financial year at a cost of £225. Two years later (!) the principal architect was told that another estimate would be

Fig. 9 The presbytery from the north-east, 1950, fenced off while the military still occupied the headland.

required for the more urgent work, "of which there is much. These fine architectural remains are in a sadly neglected condition, for mortar joints have been destroyed by frost to a depth of from 4 to 6 ins in some places. Owing to this, the stonework generally and particularly the interesting Early English work of the choir and presbytery is now decaying rapidly. An estimate is submitted for scaffolding the greater heights and pointing stonework, giving special attention to tops of walls etc to prevent rain from penetrating." In July 1909 a final estimate was agreed "to complete the preservation of the Lady Chapel and Presbytery, i.e. raking out joints, repointing and grouting including necessary scaffolding £100; stripping, clearing and covering with cement the tops of walls and arches, and raking out and grouting and pointing to walls and columns of north and south transepts and aisles £150." In October 1910 Sir Charles Peers, Inspector of Ancient Monuments, reported to the permanent secretary that the pointing was now all finished and in good condition, but windows to stairs on south side of presbytery needed glazing to counter wind erosion; visitors should not be allowed into upper levels for safety. The stonework of the west doorway of the Percy chapel was "clogged with incrustation"; it would be very desirable to free it as Mr Oldrieve had done with the stonework at Holyrood. The surfaces of the masonry at the exposed angles of the church were much worn away, "but rather by the forces of winter gales than any

decay of the stone; it would be well worth trying whether the Baryta treatment [barium hydroxide] would resist the weather". In the presbytery a large space was enclosed on the north side by iron railings but there were no gravestones within it, the tablets commemorating the persons there buried being fixed on the north wall of the presbytery; Peers said it was very desirable that the railings be removed and enquiries might be made about this.

Peers' general satisfaction with the first-time consolidation of the ruins as an ancient monument was spoilt when he visited almost exactly two years later and was told by the architect, Frank Baines (who had employed a local contractor, S. F. Davidson of Newcastle) that on examining the work "a greater part of the pointing is quite rotten and can be dug out of the joints like earth. It is obvious that this cannot be left as it is, but must be removed and replaced by proper lime mortar in yearly instalments." He concluded with a statement that is as politically charged today as it was then: "I must point out that this could never have happened if the work had been done with a foreman under direct labour." Asked by the permanent secretary why he had not thus reported after his visit in 1910, he wrote that it may have seemed sound at first "as inferior work will". There were further office memoranda and another inspection during 1912 and 1913 to see whether the failure was due to poor workmanship or bad weather. A third inspection was requested, in which Baines took seventy-five samples of workmanship from all over the building at random, from which he concluded that the workmanship was "bad". Part of his report and plan relating to the presbytery are reproduced as an Appendix to this article. Without specifically mentioning Tynemouth, Peers wrote in his report to Parliament for the year ending 31 March 1913 (HMSO 1914): "In carrying out the year's work the value of constant and efficient supervision is apparent at every turn, and this can only be obtained by a closely organised system of control, every workman being in direct touch with the Department through the foreman and Clerk of Works. Such a result can only be obtained by keeping the management of every detail in the hands of the Board through a system of direct labour. The employment of a contractor at once produces complications and loss of direct control, and the additional work and responsibility thrown on the Department by dispensing with a contract is amply compensated by the results on the standard of the work." The bad work reported by Baines and Peers was re-done, starting the following year; unusually detailed plans and photographs of the scaffolded ruins survive from this period (figs. 10 and 11; see below). In May 1913, the army reported to the office that "the ruins are deteriorating" but in July Peers noted "a small amount of repair is being done by us to the east front of the church, but our funds will not admit more than a small installment this year" (WORK/14/757). Although it is clear that some stone replacement was carried out between *c.* 1920 and 1980, noticeably near the south-east corner of the south face of the south wall, there are no further records of works to the walls of the presbytery until 1996, when the walls were scaffolded to allow the recent detailed inspection and conservation work to be undertaken (figs. 12, 13, 14 and 15).

DISCUSSION AND ANALYSIS

In analysing the eastern arm of Tynemouth Priory church, one must first address a historical problem of perspective. Written accounts are almost as one in regarding the whole of the east end, including the choir, as integral, i.e. of one architectural period. From the early accounts by Craster (1907) and by Craster and Hadcock (1936; 1937; 1952) through to the recent guide by Saunders (1993) little indication is given of the structural complexity of the eastern arm of the priory church. Even obvious anomalies such as the vertical break between the choir and the presbytery have been largely passed over. This vertical division is obvious to the naked eye even without the scaffolding of the present campaign.

On the western part of the south presbytery wall, the last bay effectively forms the eastern

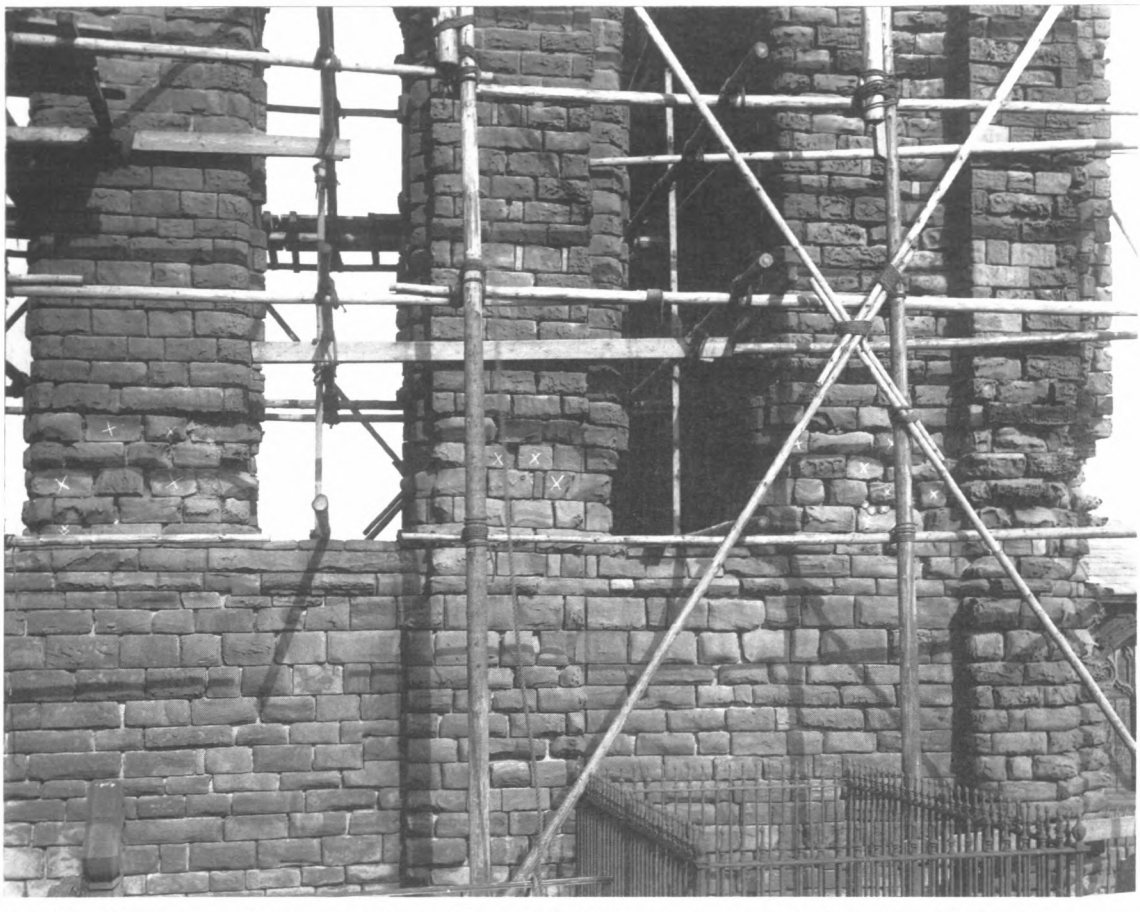

Fig. 10 Old photograph of conservation works in 1914. " X" indicates stones to be replaced. © English Heritage.

bay of the choir (see above fig. 2). Here, on the first stage, a recessed opening has been largely filled in but originally consisted of a tall thin recess with moulded jambs; at the top was a double pointed arch with a slender dividing shaft which formed two niches. Above, on the triforium level, a semicircular arch is supported on detached shafts and stiff-leaf capitals. Within the arched recess are two further pointed and moulded arches with a dividing shaft between. An examination of Waters' mid-eighteenth-century painting completed when the choir was still extant (published in NCH VIII, pl. IX), shows that, on the typical choir bay, on either side of this form of semicircular arch, was a further half-width opening with pointed and moulded head. This ensemble of arch and two adjacent semicircular arches formed the basic architectural unit in use on the choir.

A later version of this kind of arcade can be seen in the nave at St Hilda's, Hartlepool, where there is the same ensemble of two narrow half-width arches to either side of a central opening. At St Hilda's, however, the central opening is designed to light the nave at clerestory level. Significantly, at Hartlepool, the triple arch ensemble is on the exterior of the church; only the central opening goes through the wall to a nave whose treatment is

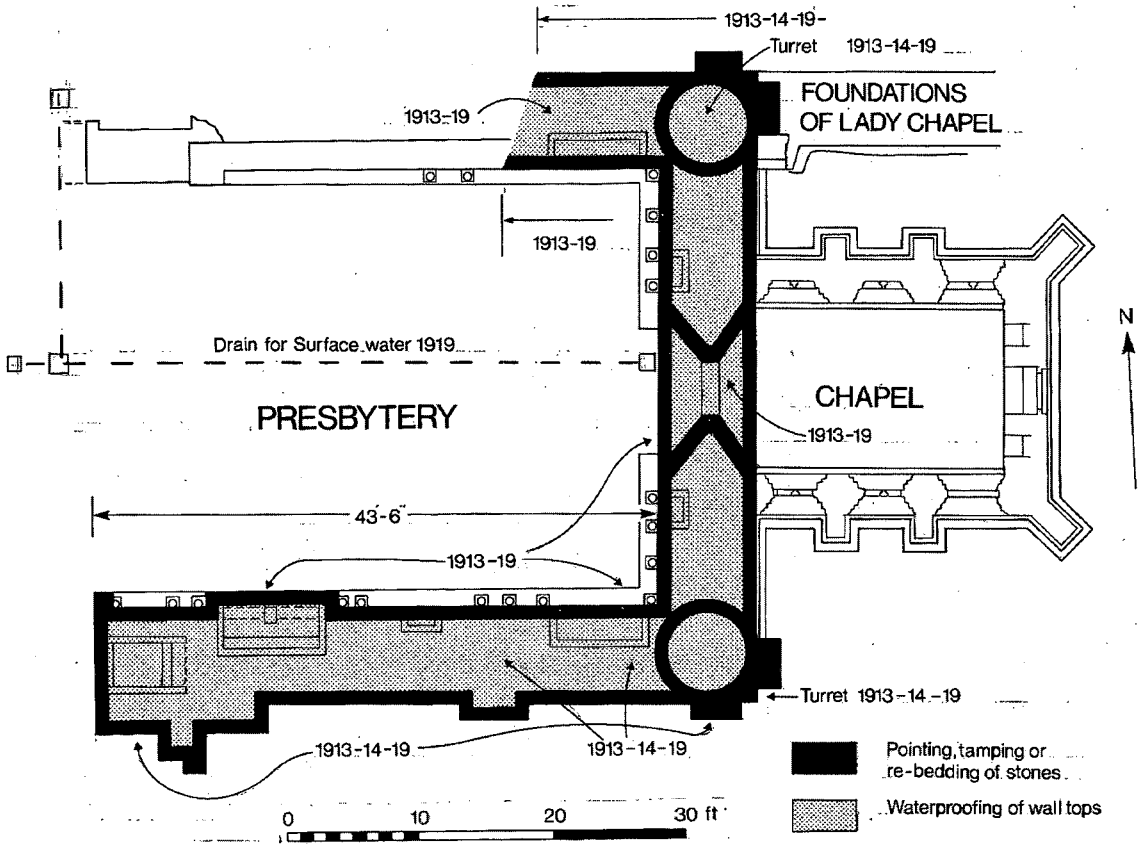

Fig. 11 Areas of repointing etc., 1913–1919, a re-drawing of Office of Works plans 88/8A1 and /8A3.

altogether plainer and simpler than that at Tynemouth. Did the Hartlepool builders wish to avoid the darker and more confined aspect of the Tynemouth choir? Reversing the wall treatment, so that the triple arch is on the outside does not lose the architectural effect but renders the interior of the Hartlepool church altogether lighter and more apparently spacious. Alternatively, the Tynemouth architect may have been aiming for precisely a dark tunnel-like effect, as will be seen later in this discussion.

Above the Tynemouth choir arcade was a clerestory of close and equal-width lancets in triplets, with two blind arches on either side of a central opening, all with moulded jambs and pointed arches; above these are the windows of the great chamber (fig. 14).

This heavy use of small arches and mouldings contrasts with the lighter treatment of the presbytery, with its tall large lancets in the first stage which rise to swallow the triforium stage as well. Above are lancets of similar style but of half the height, with decorated hood moulds and vaulting springers. There seems to have been no attempt to match the horizontal articulation of the presbytery with that of the choir – the bases of the clerestory lancets override the tops of the choir/triforium arcade, as far as the capitals. In the choir the treatment of the wall is intense and cluttered; by contrast, the presbytery windows occupy the whole wall, opening it out, and making it light, airy and strong.

A closer examination of the east end reveals many other irregularities in the structural detail, which seem not to have been commented

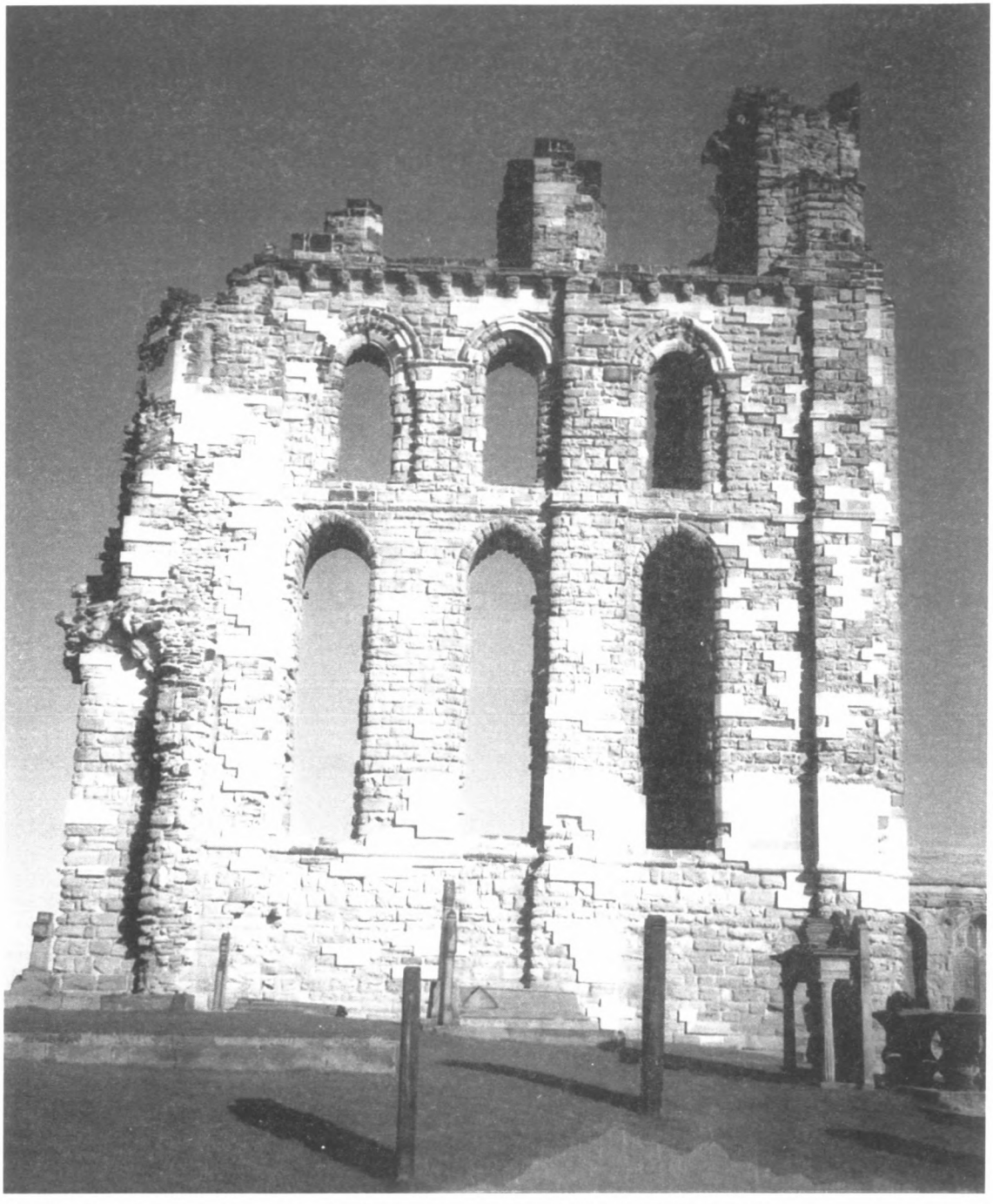

Fig. 12 South elevation of south wall, showing stones replaced 1996–97. © English Heritage.

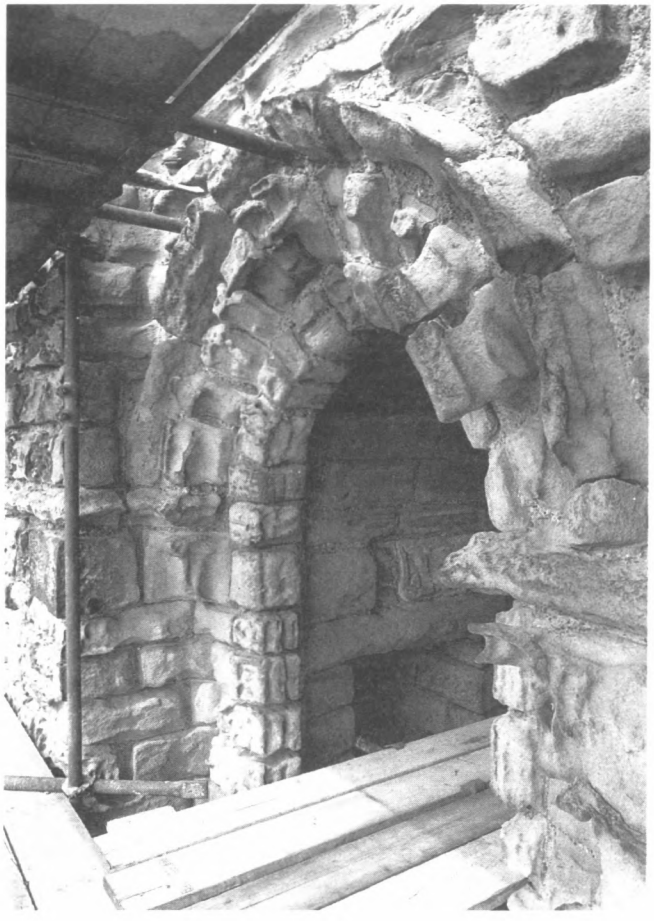

Fig. 13 Head of a clerestory window on the south side, showing severe weathering, 1996. © English Heritage/Jonathan Bailey.

on before and indicate changes in design whilst construction was proceeding.

It has been assumed by previous writers that the new choir and presbytery were laid out around the Norman choir and east end, and that these latter were subsequently dismantled when the new structure was in place. In this way services could continue within the old building with only minimal interference from the new work. It has also been assumed that the new work was built from the east to the west. The discontinuities discovered during the present conservation work, however, indicate that the chronology was more complex than this simple model suggests.

Hadcock, for example, suggests that new openings were made from the transepts into what would become the new quire aisles (1936, 126); these openings were then blocked off to provide temporary buttressing for the tower. He says: "A very definite joint at the west end of the south quire aisle shows very clearly that these arches were built first, with the presbytery at the east end, and the work on the quire connecting them, then proceeded from east to west."

His apparent claim is that the presbytery was built first, followed by the choir which connected the new presbytery to the old church. In stylistic terms however, this seems to be the

Fig. 14 Top of south wall, 1996, showing severe weathering and the sloping pavings laid c. 1914 to shed water. The window reveal is for the great chamber which was added above the vaulting. © English Heritage/Jonathan Bailey.

wrong order, because the choir looks back architecturally at the nave, using the semi-circular arches at the first-stage level, i.e. the triforium; in the presbytery this element is absent and the Gothic arch is used exclusively. It is certainly possible, and indeed probable, that the whole of the east end, including the presbytery, was laid in outline in the first instance. The standing architecture, however, tells against the idea of the construction proceeding to the west from the presbytery. Hadcock's phraseology with its specific "the quire connecting them" must then be twisted to fit the westwards construction model. If the presbytery had not been built, there would be little to connect to.

Hadcock, as we have seen, does note the joint at the west end of the presbytery: "The south wall of the choir does not run truly parallel with the wall of the main arcade and there is a . . . joint in the narrow western bay of the presbytery" (1936, 126). He also speaks of irregularities in the buttressing and the windows but, caught up as he is with the idea of Tynemouth as "without rival in Transitional buildings for beauty, grace and strength", he does not pursue the implications of this evidence very far.

It is this joint between the choir and presbytery that first draws one's attention to the fact that the western bay is anomalous. There are other peculiarities: the point of the lower lancet

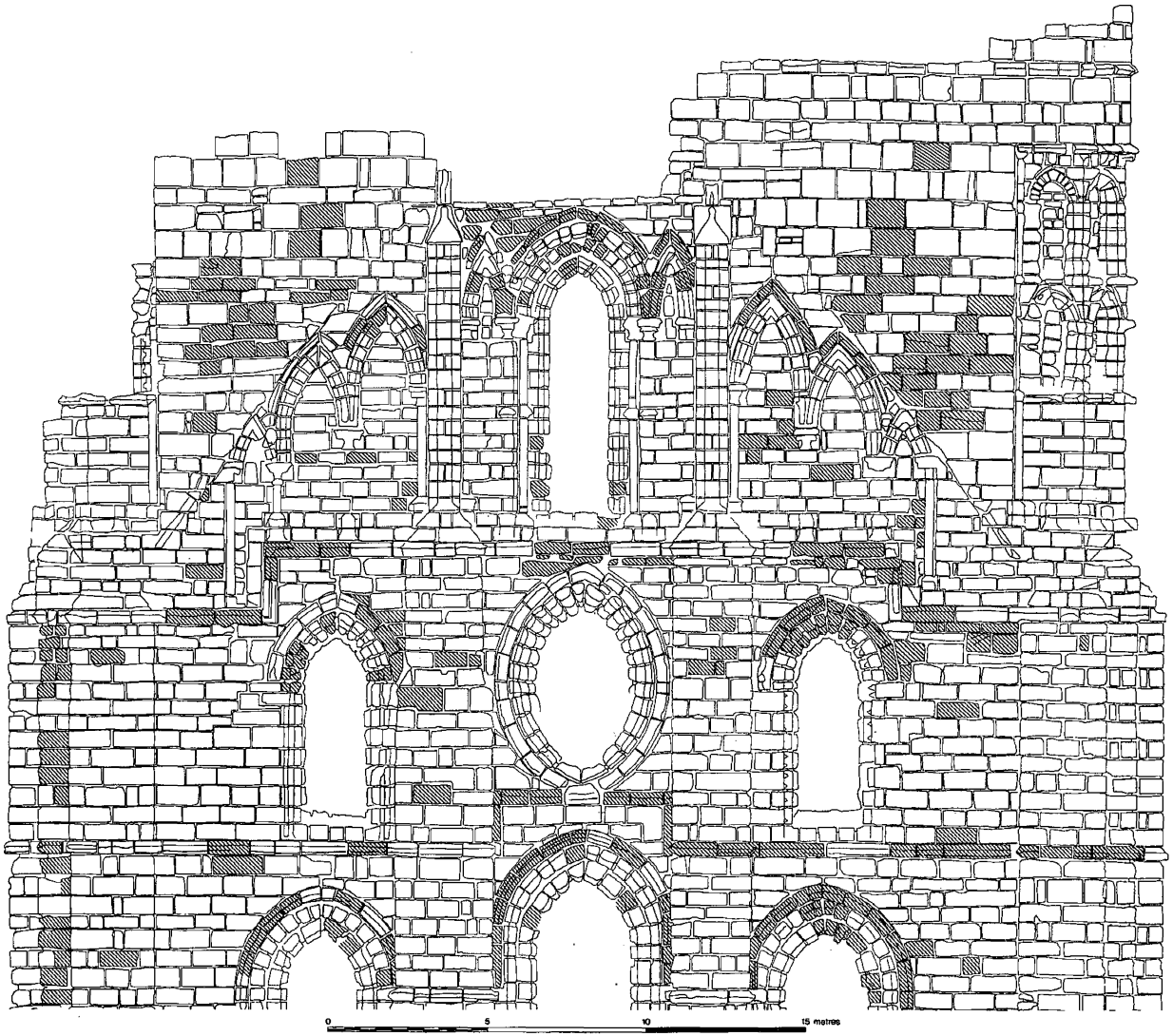

Fig. 15 Part of photogrammetric drawing of east elevation of east wall, showing stones replaced 1996–97 (hatched areas). It also shows the line of the gable before the heightening. © English Heritage.

does not meet the sill of the clerestory opening in the centre but is to the right of it, whilst the inner clerestory opening does not match the outer opening; the east jamb has been splayed in order to meet its external counterpart.

Tynemouth's presbytery composition of tall large lancets divided by triple clusters, is echoed at Hexham and Whitby and also recalls the treatment of the east wall of the Nine Altars at Durham Cathedral, where the first stage is occupied by a blind arcade and above are bays of tall large lancets divided by triple clusters which support the vaulting. At Durham, however, constructed fifty years after Tynemouth, the nook shafts of Frosterley marble are all detached: there are no engaged courses such as are found at Tynemouth.

Equally at Beverley Minster and Brinkburn Priory there is a mixing of pointed and semicircular headed openings in plainer and similar compositions. Large tall openings occupy the first stage and shorter half-height openings are used at clerestory level, with a string course between. Neither at Beverley nor Brinkburn, however, was there a need for dividing column clusters to support the less weighty vaulting and the whole treatment is plainer.

In the composition at Tynemouth, the first stage of a blind arcade appears internally as an integral whole, without any problems of construction. Notice must be drawn, however, to the large double opening with trefoiled head divided by a single engaged shaft. This structure was originally identified by Craster as an Early English sedilia – and for this function it would be in the right position near the high altar and adjacent to the piscina. It is, however, very large for this purpose and the stepped interior seems too low to be comfortably used as seating; in part for this reason it was subsequently identified by Hadcock as the possible site of the shrine of St. Henry of Coquet. There is some supporting evidence for this interpretation. Colonel Spencer-Cowper, the Lieutenant-Governor of the castle, a contemporary of Brand, noted that "In the ruins of Tynemouth monastery there are still observable three recesses in the south wall, near to the entrance of the oratory of St. Mary; one is said to have been the confessional chair, divided by a stone partition, where there has been anciently a grate". (Brand 1789, 124). The placing of (an achronistic) confessional so far east in the church would seem unlikely but Cowper's mention of a grate is intriguing. If this *were* the shrine of St. Henry, then one side could have been a pilgrim's kneeler whilst the east side could have held the saint's relics in feretory box behind a grate. The relics would thus be secure but still visible to pilgrims. The recess is certainly architecturally emphasised in the wall and this shrine identification seems reasonable.

Tynemouth was not strictly a pilgrim church; pilgrims were given access to St. Oswin's tomb through the rood screen and the monks' choir. Although the earlier Norman church at Tynemouth had an ambulatory with radiating chapels, the rebuilding of the east end did not seek to continue this arrangement, perhaps because the Tynemouth monks did not face the visitor numbers of Durham or Westminster, whose ambulatories solved problems of circulation posed by large numbers of pilgrims. The relics of Oswin were later removed into the Lady chapel on the north (Craster and Hadcock 1937, 212). The Elizabethan plan (fig. 3) shows a large buttressed building on the south side of the presbytery where there is now a large square mound, covered with graves. Could this have been the site of a later chapel for the relics of Henry of Coquet, which had also been removed from the east end? If so, this would suggest that the monks may have moved towards excluding the pilgrim traffic from their part of the church.

Further anomalies appear in the composition of the presbytery in addition to its different treatment from the choir. There are two tall thin openings which stretch from the string course to the triforium; these are capped with pointed and moulded arches. Are these just to fill in an otherwise plain wall or might these openings have held statues of the two saints, Oswin and Henry of Coquet? It would be interesting to know if the north wall received similar treatment at this point but unfortunately no early drawings resolve this point.

The tall lancets in the first stage also show discontinuity in their structural articulation.

The first two or three courses are built in staggered nooks and engaged shafts, composed of small separate blocks. The upper courses to the level of the capitals have nooks composed of large single stones and the corresponding shafts are banded and detailed.

If the original scheme had been adhered to, i.e. with engaged shafts and moulded arches, the construction would have matched Hexham with its moulded arches or Brinkburn in the severity of its design.

The first-stage windows at the east end are irregular in design. The southernmost opening is deeply splayed to the south with a straight jamb on its north side whilst the centre opening has both jambs slightly splayed to the south. One would consequently expect the northern opening to be deeply splayed north in order to match that on the south. In fact it is also splayed south, although not as deeply as the southern opening. Perhaps this irregularity was designed to admit more light around the shrine of St. Oswin but whatever its purpose the splays are hardly orderly and this has left the openings irregular and out of keeping with the symmetry of the design.

All these discontinuities suggest changes during construction. Some of the problems might have been overcome if the east end had been laid out correctly to begin with. The dislocation of the western opening on the south wall might have been adjusted, for example.

Examining the south wall construction one is also struck by the anomalous buttressing. The buttresses that do exist correspond with the springers for the presbytery vault. At clerestory level these springers sit in between the openings and to either side of them. Thus, with three openings, there are four springers. Hodges suggested the vault as sexpartite, a rare form in England but more common in France. He cited a number of English examples of which the most relevant and local was that of the south side of the nine altars, Durham, although it should be noted again that this is over a generation later then Tynemouth's construction. He did not suggest any French parallels and merely said the Tynemouth form was "peculiar" in springing the arches very late so the springers appeared almost as pilasters (Hodges 1922, 112).

The present author, being very uncertain of vaulting will not rush in where angels fear to tread, but would welcome the contribution of any specialist who has thoughts on this aspect. Enough has been said, however, to demonstrate that there ought to be a buttress between the first and middle openings at the base of the south wall (to match the vaulting springer above). It is missing. Examining the western bays and deducing from them the length of a bay, the eastern bay appears to be of one and a half lengths. If the missing buttress was inserted, the width of extra masonry would suggest the eastern bay as an addition. Leaving it out preserves the (apparent) architectural integrity.

A two-bay eastern arm would not be unusual: the original eastern arm of the Norman church was a two-bay construction, with an extending apsidal chapel whilst the eastern end of Brinkburn was also of two bays.

The suggestion that there were changes in the scheme as the work progressed is supported by evidence in the south wall fabric. The building lifts in the wall are regular until a height of seven or eight courses is reached. To the west of the buttress below the east side of the middle opening, the coursing goes awry. For about six courses, stone mismatch and L-shaped stones have been awkwardly fitted in. At the string course level the coursing has more or less straightened, although an extra line of flat stones is inserted below and to the west of the middle opening.

This may suggest that the east end as two bays had been constructed to just below the string course with the east buttress complete to seven courses and the upper courses perhaps more ragged, i.e. not vertically aligned. There was then a decision to add the extra length which led to the slight mismatching in the upper coursing as has been described above. By the time the string course was reached the coursing again matched (although the adjustment of a half course of smaller stones has already been noted).

A major change of mind thus seems to have taken place during the construction of the east

end suggested by evidence in the visible fabric: the change from a two to three-bay eastern arm; the change from engaged shafts to detached shafts; the change from a fairly plain wall treatment to the lavish decoration of the clerestory level; finally, the change from trefoil heads for the eastern openings to pointed arches matching those of the south wall. The changes in all instances move from the simpler to the more grandiose. Had Tynemouth received an influx of cash from a benefactor; or was it trying to compete with other local houses and trying to outdo them in the grandeur of its east end?

Whatever the cause, the architects and builders were apparently forced to modify the original scheme whilst still maintaining its structural integrity. This may explain why the western opening in the south wall was not adjusted to its correct position. Perhaps to do so would interfere with something that had already been built and could not easily, or safely, be dismantled. The problem faced by the builders may well be explained by the disposition of the putlog or scaffolding holes. In the other openings on the south wall, the putlogs are in the centre of the sides of the opening. In the western opening, by contrast, they are firmly up against the external jambs, i.e. on the south side. Beneath the putlog on the west side of this opening is a stack of stone created by extending the intra-mural passage wall on the south side by about 20cms. It may be that this stack held a critical part of the scaffolding. On the internal face of the wall one is immediately adjacent to the east end of the choir. The architecture of the choir with its semi-circular openings appears earlier than the presbytery and must have been constructed first. The vaunted idea that the whole eastern arm was built from the east end does not fit the evidence. The architecture should be of one period or earlier at the east end and all the openings could have been constructed to match.

If the choir were built first at least as far as the ceiling level, the critical putlog at the west end of the presbytery with its attendant scaffolding might have supported the beginnings of the presbytery vault. The linking bay between choir and presbytery does appear to have a vaulting shaft and is shown as vaulted on Hodges/Weatherby's restoration of 1922. The rest of the choir, I assume to have had a slatted wooden ceiling. With the extended passage wall already in place, the builders would have been forced to use it as the west jamb of the west opening to the presbytery at clerestory level. This would automatically mean that it could not completely match the arch of the first stage window below. A solution might have been to move the opening to the east, which would have removed the need to splay the opening. But then the dislocation of the opening base and the arch centre below would have been even more obvious as well as affecting the openings to the east. By leaving the opening where it was, i.e. against the last vaulting springer of the choir vault and splaying the eastern jamb out to the external opening, the visual dislocation was reduced. Since the two openings to the east did match their first stage counterparts, the overall effect would be maintained. Since the error is at a high level in the church, it does not show from the outside and is only visible from the inside if one is looking for it. From ground level one's eye is drawn more to the windows that match rather than to the one that does not.

The same trick seems to have been employed at the east end with the southernmost opening. Once again because of the extension of an intra-mural passage, the external opening was forced to the south. In order to match the two openings, the southern jamb was deeply splayed. The extra stack of stone created by the extension once again ends in a chamfered block and it may be supposed that this also held a critical piece of scaffolding, perhaps connected with the vaulting. This stack is immediately beneath the "proto-trefoil" on the north side of the southern opening. Perhaps, as on the south wall, rather than endanger the scaffolding construction, it was not dismantled but the first piece of the trefoil, already in place, was left. Since no-one has drawn attention to this part trefoiled head, one may assume the builders

were justified in thinking that none would notice or would want to notice.

One could also speculate on the existence of a similar stone stack supporting the scaffolding in the north wall, probably in the eastern bay. Locating it elsewhere would leave the scaffolding construction asymmetrical, whereas if there was a similar feature in the eastern bay, then the "scaffolding buttress" is located at the same relative position in all parts of the eastern arm of the church.

In all these instances the medieval architects and builders sought visual solutions to the dislocated architecture. The problem was unconsciously to lead the viewer to admire the whole ensemble rather than notice the details. The solution differed in each case.

On the south wall the architect used the horizontal articulation to trick the eye into seeing a continuity where none, in fact, existed. Here he extended the horizontal articulation of the choir by bringing the mounded string course, in the form of banding, on to the west shafts of the westernmost first stage opening. This resulted in a need to insert extra small shafts above the banding on the west jamb. On the eastern jamb of the same opening, however, the architect used the horizontal articulation of the presbytery, leaving the string course at the level of the abaci, which then extends around the east end. The eye would follow along the string course of the choir and flick up to the higher level of the presbytery string course, almost unaware that the line was not continuous. This visual trick leads the eye of the viewer swiftly and naturally past the splayed and dislocated opening and renders the dislocation invisible.

At the east end there was no problem with the horizontal articulation. The extra "pseudo-buttress" or stone stack supporting the scaffolding was tucked away on the north external side of the southernmost opening, so that any rapid glance would make it appear as one of the regular orders of the window opening. At this end, in any case, the visitor's attention would more probably be drawn to the shrine of St. Oswin, not to the windows which lit it. That did leave the slight anomaly at clerestory level, where a trefoil head had been begun but finished as a conventional pointed arch. Perhaps with the pilgrim's attention on the shrine, one small difference at clerestory level would be overlooked – as it has been.

For centuries writers have spoken of the glorious east end at Tynemouth without ever mentioning or discussing the anomalies. Although Hadcock refers briefly to the joint between the choir and the east end, he does not account for it. He alludes to the irregularities in the window but does not mention the proto-trefoil and dismisses the irregular splays as an attempt to provide extra light. At Whitby Abbey the triforium stage only recalls Tynemouth in having semicircular recesses containing double lancets; the lancets are larger and open through the wall. The extra lancets to either side of the centre semicircular recesses are external and the treatment at Whitby is altogether plainer and simpler. At Tynemouth, on the evidence of the Bucks' drawing and Waters's painting, the treatment of the choir is cluttered and overdone. Even allowing for artistic licence the aspects of the choir are similar in both drawings. The triforium stage has no lighting behind it and the clerestory is heavily moulded. The choir would have been rather dark and forbidding and it is hard to escape the impression that the architect was deliberately aiming at achieving that effect. In the middle ages, a visitor penetrating beyond the rood screen would be confronted by a spectacle. The heavy, over-decorated, almost claustrophobic choir, would contrast specifically with the presbytery, with its simple elegance and large window lights. The effect would be of looking down a dark tunnel to where the light played around the shrine of the saint whose house this was. In a typical medieval play on the visual, emotional, and ultimately spiritual senses, in all of that, who would care to notice minor irregularities in the presbytery structure?

Yet even later, after the Reformation and after the east end was partly pulled down, the monument kept its integrity. Generations of writers came but spoke only of the symmetry

of the east end, the grace and wholeness of the presbytery structure. In fact if one looks too closely, it is anything but. The architects and builders who made it, however, took great care to ensure that no one did look closely. By combining a vertically soaring perspective with some horizontal visual illusions, they covered up the changes in design, alterations in construction, and anomalies caused by scaffolding. If we now celebrate Tynemouth as an integral architectural glory, it is a testimony to their success.

APPENDIX

Report on unsatisfactory mortar samples submitted to principal architect, Office of Works, by Frank Baines, architect, 14 March 1913 (PRO WORKS/14/759).

"Principal Architect,

I have spoken to you about this matter and submitted evidence of the very unsatisfactory nature of the work at the Priory. In accordance with your wishes I now present the substance of my examination of the Buildings to you and have for your inspection about 70 or 80 samples of the work cut out from various parts of the walls – the positions of which are marked upon the plan attached.

My examination was as thorough as was possible from ladders; scaffolding would be necessary to make an exhaustive enquiry, but the evidence I have taken is such as would lead me to expect that the present information gathered applies quite fairly to the whole structure.

The samples of pointing, etc., taken are fairly representative of the wall surface adjoining each. They were taken indiscriminately at the most convenient points, and, as far as possible, so that the holes made should not show up too prominently.

It is difficult to arrive at a general conclusion regarding the work, but judging by any ordinary standard of good work, and *not* the rather special standard of this branch, I do not think the workmanship can be considered other than bad.

Taking the question of raking out the joints and getting rid of all loose and decayed mortar in the beds – in almost every case I found that this had not been done. Even when the pointing was hard and firm it rarely was more than $\frac{1}{2}$ deep in the joints, and behind it, perfectly dry friable and perished mortar was present in large quantities, and I am of the opinion that in such a case no pointing however hard will stand. In many cases the pointing was merely dark earth or ashes in appearance, quite soft and friable and its condition was *not* due to frost and it could be scraped away even with the finger nail.

A great deal of misconception appears to exist in the minds of the authors of various reports on this file with regard to the effect of frost. My experience shows that frost first blisters the face of the mortar joint affected by it, and then strips the face only, and certainly does not turn the whole depth of the joint into earthy matter, as such as exists on this Building in parts.

The pointing has been carried out at different periods and no attempt appears to have been made to obtain uniformity of appearance, strength, etc. The aggregate has varied considerably and consists of ground ashes, foundry sand, sea sand, fine sand and dirty coarse sand, while soot for some reason has been used with it in certain cases.

Cement appears to have been the matrix in most cases, but I also found a brown substance which is used locally under the name of mastic.

The mortar made with the sea sand appears to be the hardest but that made with ashes and foundry sand varies surprisingly – some can be cut with a knife, like cheese, and some resembles dark earth which can be rubbed away easily.

In almost every case, even when the mortar is hard on the surface, the core of the joint is soft, dirty and powdery, and it is not to be expected that even the hard pointing will stand in such a case.

The pointing is never deep in the joint, the major portion being quite thin, and for this

reason the sea sand mixtures though hard are often cracked.

The pointing in the later work has usually been kept well back from the face of the stone, but in some of the older work it has been smeared over the edges. This appears to form a thin covering behind which the wet enters, the stone decays and the covering finally flakes off.

The wall tops and wall walks are either covered with a layer of sea sand mortar or the stones are merely pointed. Fine cracks exist in the covering and when a hole was cut through this to ascertain whether any grouting had been done, I found a cavity beneath descending into the body of the wall.

No evidence exists of ***any*** grouting having been done, nor do any of the walls appear to be monolithic. This is a serious matter at the Priory as heavy gun firing practice is constantly being carried out closely adjacent, and unless the whole structure can be securely grouted there can be little doubt that the walls will not stand.

Many loose pieces of stonework show on the east face of the Presbytery and pieces are continually falling (some were on the ground at the time of my visit) but no effort seems to have been made to secure them.

Below I give a detailed list of the samples taken and their condition.

I attach also a general specification showing the method of pointing carried out by this branch."

The memorandum continues with a list and description of thirty-six samples of pointing taken from different parts of the walls, "the worst samples underlined in red."The locations of these samples are shown on a plan.

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