

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
The Auckland Project

The west curtain wall and mural tower
Auckland Castle
Bishop Auckland
County Durham

archaeological monitoring and recording

report 5175
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1. Summary

The project

- 1.1 This report presents the results of archaeological monitoring and recording work carried out before and during repair and consolidation at the west mural tower and west curtain wall of Auckland Castle, Bishop Auckland, Co Durham. Dismantling and restoration work on the tower has been observed and recorded and a photographic survey of the west curtain wall has been prepared.
- 1.2 The works were commissioned by The Auckland Project and conducted by Archaeological Services Durham University.

The west wall

- 1.3 The west wall pre-dates the tower but it contains no significant early features. It contains evidence of many alterations such as changes in height, creation of new openings and incorporation of elements of adjoining buildings. The latter are, or were, houses on the west face of the wall and service buildings on the east. There are no signs of any defensive features; the wall is simply a boundary.

The mural tower

- 1.4 The tower was an addition to the west wall and, like that structure, it was never intended to be a defensive feature. The radiocarbon dates from the roof timbers show that the tower was built in the 1420s or 30s under Thomas Langley, who was Bishop between 1406 and 1437. This shows that the tower is not connected with the documented construction of the stone gateways of the College in the time of Bishop Boothe.
- 1.5 The tower provided a small separate accommodation block of some status, as demonstrated by the lavish woodwork and the likely provision of fireplace and garderobes. The fact that it was called 'the Sheriff's Tower' in the 17th century suggests that it might have been built as living quarters for one of the senior servants of the Diocese. The Sheriff of Durham in the period suggested by the scientific dating of the roof timbers was Robert Eure of Bradley Hall and Kimblesworth; he was Sheriff and Escheator of Durham and Sadberge and one of the sons of Ralph Eure of Witton Castle. He would have expected to be provided with accommodation suitable to his status, and such was offered by the Sheriff's Tower. The office holders in the period 1641-1654, when the name Sheriff's Tower appears in historical records, were also all powerful and wealthy men. They included William Collingwood, Henry Vane the Elder of Raby and Barnard Castle, Richard Belasyse of Morton House and Sir James Clavering of Axwell House, Blaydon.
- 1.6 In later years the west mural tower had a variety of much lower-status uses, from accommodation for the gamekeeper to latrine and chicken shed. The fabric of the tower has been repaired and the floors and roof reinstated so that it is once more a useable building.
- 1.7 The archaeological monitoring has not uncovered anything that substantially alters existing interpretations of the form of the building. The most significant additions to our knowledge of the tower are the construction date given by dendrochronology and radiocarbon analyses, and the rediscovery of the building's former name.

- 1.8 It is recommended that consideration should be given to returning the old name of the Sheriff's Tower. That would restore the connection between this small building and the Bishop's administration, a link that has been lost for many years.

2. Project background

Location (Figures 1 and 2)

- 2.1 The tower and walls separate the west of Auckland Castle from the east end of the Market Place. The Ordnance Survey grid reference of the tower, which is at the north end of the wall, is NZ 21224 30187. From the south-east corner of the tower, the curtain wall runs south for 58m to meet the rear of no. 18 Market Place. The tower covers 32.16 square metres and the total area of the site is about 120 square metres.
- 2.2 Together, the mural tower and west wall form a Grade I listed building. A row of six stone pillars just to the east of the wall is separately listed at Grade II. Apart from the tower itself, all of these features lie within Auckland Castle Park which is listed at Grade II* on the Historic England Register of Parks and Gardens of Historic Interest. All features are inside the Bishop Auckland Conservation Area. The tower is listed on the Co Durham Historic Environment Record as HER 37682.

Objective

- 2.3 The southern part of the west wall was consolidated and repointed in 2016 before the construction of the new Welcome Building to its west. In 2018-19 the mural tower was repaired and altered for use as educational facility and the adjoining yard was altered. The planning reference for this work was DM/18/01600/FPA.
- 2.4 The objective of the archaeological project was to provide a record of the fabric of the wall and tower. The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the scheme of works was designed to address agenda item MDiv, Castles and defensive structures.

Specification

- 2.5 The works have been undertaken in accordance with a written scheme of investigation provided by Archaeological Services Durham University.

Dates

- 2.6 The curtain wall was recorded between September and November 2016. Monitoring work on the west mural tower took place between 23rd November 2018 and 20th May 2019. Monitoring of external excavation and floor clearance took place between 16th and 23rd May 2019. Scientific dating work on roof timbers of the mural tower was carried out by the Nottingham Tree-ring Dating Laboratory and Historic England in 2018 and 2019. This report was prepared for October 2020.

Personnel

- 2.7 Monitoring and survey work was carried out by Richard Annis. The service trench and floor clearance excavations were monitored by Jenny Richards. This report was written by Richard Annis and the illustrations were prepared by Janine Watson and Dr Helen Drinkall.

Archive/OASIS

- 2.8 The project archive is currently held by Archaeological Services Durham University and will be transferred to the Durham Record Office and Archaeology Data Service in due course. Archaeological Services Durham University is registered with the Online

Access to the Index of archaeological investigations project (**OASIS**). The OASIS ID number for this project is **archaeol3- 404523**.

Acknowledgements

- 2.9 We are grateful to Harry Beamish and Peter Ryder for information on the structures. Our thanks are also due to Gary Simpson of Heritage Consolidation for his assistance and advice during work on the tower.

3. Landuse, topography and geology

Landuse

- 3.1 The Castle stands on the north-eastern side of Bishop Auckland at the west end of a large park. The wall and tower described in this report form part of the west boundary of the site, lying between the Castle grounds and the Market Place. The land immediately around the study area is occupied by the gardens and detached buildings of the Castle and private houses on Silver Street and Market Place.

Site and situation

- 3.2 The mural tower stands at the same level as the Castle and the Market Place, at about 95m OD. The site is on the broad level top of a ridge between the Wear and Gaunless valleys. From outside the Castle, most of the west curtain wall is hidden by houses at the east end of the Market Place. It is most clearly seen from Silver Street at the north-west and from the Auckland Tower to the south-west (Photograph 1). East of the study area, the Scotland Wing runs south-west from the main body of the Castle, with enclosed gardens, now mainly grassed, to the north and south. There are more gardens and other buildings, including the chapel, immediately east of the study area. Three ranges of the formerly quadrangular College of canons, now used as houses and service buildings, lies a short distance to the south-east of the mural tower.
- 3.3 The west wall runs roughly north-south and the mural tower is at its north end. The enclosed area east of the wall is described in this report as the west court; the wooded area immediately north of it is called the Rookery. Silver Street runs past the west face of the gate. The houses immediately west of the wall are listed as part of the Market Place.
- 3.4 At the beginning of the survey, the west wall was abutted on its outside face by buildings at the rear of nos. 21-24 Market Place; this road was formerly known as King Street. The area at the south end had recently been cleared for the construction of the Auckland Castle Welcome Building and tower. Inside the west court, there is a row of six tall stone columns beside the north end of the wall's east face. These are the remains of an open-fronted shed or Dutch barn. South of this, a substantial sloping wall ran east from the face on the site of the present Energy Centre's north wing. A small shed still stands in the angle between the west wall and the house at the south end of the court.

Geology and soils

- 3.5 The bedrock under the Castle is Westphalian siltstone, mudstone and sandstone of the Pennine Middle Coal Measures formation. These rocks are overlain with a considerable thickness of glacially-deposited till.

4. Historical development

- 4.1 The history of the west wall and tower have been set out in detail in reports by Peter Ryder and Sue Degnan (1998, 1999), Peter Ryder (2013) and Harry Beamish (2015). Conclusions reached by these specialists are summarised here, alongside some new information from documentary and cartographic sources at Durham University Library Archives & Special Collections.

The wall

- 4.2 There is clear structural evidence that, as Peter Ryder states, the mural tower post-dates the west wall. Ryder cites an account roll of 1337-8 that mentions payment of 20 shillings to two carpenters who had carried out work on 'the great stone wall on the west side of the Manor House' (Boyle 1893, 484). Recent excavations carried out by Archaeological Services suggest that the great stone wall mentioned here was part of the main Castle complex, east of the College buildings, and not the west boundary wall. Nonetheless, the relationship between the two structures shows that the west wall is of medieval date.

The tower

- 4.3 There is no documentary evidence for when or why the mural tower was built and it is seldom mentioned in documents about the Castle. A couple of references suggest that it might have been associated with the College of canons that lay between the tower and the entrance to the Castle grounds.
- 4.4 The church of Bishop Auckland was more than a mile south-east of the Market Place at St Andrew Auckland. A collegiate church was founded there early in the 13th century (Page 1907, 126). Antony Bek, Bishop between 1284 and 1310, re-founded the college and required the canons to sing at daily services in the chapel at Auckland Castle. The monk Robert Greystanes, who was responsible for part of the chronicle of the monastic house at Durham, wrote that Bek 'constructed the manor-house of Auckland with a chapel and chambers, in a most sumptuous way' and that he made provision for chaplains to serve forever in the chapel. Godwin adds that Bek 'erected a goodly chapel there of well-squared stone and placed in the same a dean and twelve prebendaries, allotting the quadrant in the west side of the chapel for their habitation' (Gibson 1862, 30). The existing College buildings, immediately south-east of the west mural tower, are much later. James Raine's history of the Castle (1852, 51) says that 'it is recorded of Bishop Boothe [1457-76] that he built at his own expense the stone gateways of the College of Auckland with their appurtenances' and in 1460 the buildings in the study area were referred to as 'the New College'. The stone gateways mentioned here have sometimes been seen as referring to the gate in the west wall, and perhaps to the mural tower.
- 4.5 A more significant reference occurs in the Parliamentary Survey of the Manor of Auckland, undertaken in 1646. This records that

the building called Colledge adjoining to the Manor House or Castle of Auckland doth belong to the Prebends of St Andrew Auckland, a part whereof for many years last past has been in the possession of Mr Lindley Wrenne and his Ancestors, as appeareth to us by the oathe of John Robson and John Johnson. But the garden on the back and on each side thereof as also the tower called the Sherriffes Tower formerly used for a privie as also the hedge and warren in the parke and the herd house did belong to the Bishop of Durham (Kirby 1971, 9).

Two slightly earlier documents show that the Sheriff's Tower that is mentioned here is the west mural tower. These are references to the sale of a plot of land in the Market Place. In December 1641, Robert Cornforth of Gateshead, a slater, sold a 'burgage adjoining the Sheriff's Tower on the west side' to Stephen Wright, cordwainer, of Bishop Auckland. In June 1654, Wright sold the same plot, described in the same words, to William Slater, butcher, for £33.

- 4.6 It is significant that although the tower was linked with the College it belonged to the Bishop rather than to St Andrew Auckland. The association with the Sheriff, and with it the old name of the tower, has been lost over time. The medieval Sheriff was an important officer who was responsible for representing the Bishop, investigating crimes, and presiding over the shire court, as well as collecting fines and rents and executing writs. The Bishop had two Sheriffs, one at Durham and one at Norham. Assuming that the name of the building represents a real connection with the office, it is probable that in its early days the west mural tower provided accommodation for the Sheriff when he was required to attend on the Bishop at Auckland Castle. It is clear from the Parliamentary Survey that this use had ended well before the mid-17th century; the change from accommodation of a senior figure in the Bishop's staff to a privy is a significant loss of status. During the 19th and 20th centuries this small building remained a somewhat marginal structure; it housed first the gamekeeper and later the Castle's chickens.

The wall and tower in old plans

- 4.7 Most of the plans described here have been examined at Durham University Library Archives & Special Collections (DULASC). A list with full references is provided in section 10, below, and abbreviated references are used in the text here. Extracts from the more informative plans are shown in Figure 3.
- 4.8 Eighteenth-century records offer little information. The earliest map to show the study area is a garden plan prepared for Joseph Butler [Bishop 1750-52] by Joseph Spence. This shows the bare outline of the Castle enclosure with no detail within. The west wall appears as a straight line from the approach to the present Robinson arch to the north-west corner of the Rookery. The mural tower and the wall between the western court and Rookery are not shown. Jeremiah Dixon's 1772 plan (EST/4/1) marks the tower with no obvious yard or gate, though the gate from the west court into the Rookery is shown. The detailed annotated plan in John Lambert's *Historical Notes* (Lambert 1796) unfortunately omits the west court entirely.
- 4.9 Nineteenth- and early 20th-century plans give some more detail of this part of the castle. An anonymous small-scale plan of about 1800 (EST/4/9) shows the west mural tower as a plain square. The gate to its south is open and leads to a yard on the west side with a gate in its south wall. Inside the west court, there is an open square at the north-east corner; this may represent an enclosure rather than a building. A barn and cow house appear as a long L-shaped building on the west.
- 4.10 A more detailed large-scale plan made by Henry Hakewill (EST/1/34) shows the area about 1826; like most of these plans, it only gives details of structures inside the west court. Towards the south end of the west wall, an open area is marked as a dung pit; the wall on its south side is coloured pink to indicate that it was then a proposal rather than an existing structure (Figure 3A). The east and north walls of the dung pit and a small square structure built against the west wall were standing

when the plan was drawn. A separate building, probably a lean-to, on the west wall to the south of the pit is labelled 'to be used for the Smith's Shop'. A wide gate in the north side of the dung pit opens into the stable yard. Immediately beside this is an un-named three-bay open-fronted building (Figure 3B). This is separate from a larger shed or Dutch barn whose open front contains the six stone columns that still stand on site today; it is labelled 'Shed to be made into Coach House'. The plan has the label 'Gamekeeper' on the mural tower and shows the yard to its south as an open space with no outer gate. The inner gate is shown as reduced in size. The west mural tower was not the only building connected with the Bishop's gamekeepers. An anonymous plan of December 1829 (EST/1/33) shows another gamekeeper's house on Dial Stob Road, at the north-west corner of the Park. This plan also shows the site of the School of Industry, which was linked with the town's school that was set up by Bishop Barrington in 1810. The centenary history of the Barrington School that 'girls were admitted up to the age of eleven when they were transferred to another establishment called the School of Industry, situated in Silver Street and financed from the Barrington Fund' (Woods 1910, 5). An 1827 trade directory mentions the 'School of Industry for 12 girls, teaching reading, writing, knitting and sewing' (Hutchinson 2005, 75).

- 4.11 An anonymous plan (EST/4/3-4) showing drains and water pipes, dating from after 1834, shows some more detail of the west court (Figure 3C). The southern shed against the west wall has two rooms with L- and T-plan internal walls. This is clearly not the proposed smithy but its function is unknown. The small building at the south-west corner of the dung pit is revealed to be a privy with three earth closets. The door and external staircase of the west mural tower are shown and there is a water pipe leading to a tap at the south-east corner of the ground-floor room. This pipe is labelled 'branch ... to the School of Industry and Keeper's House'. The yard beside the tower is open and has a gate in the middle of its east wall. The plan shows the shed against the north wall with five columns in an open front like that of the Dutch barn. Elsewhere there is no significant change from the Hakewill plan.
- 4.12 The slightly later *Bishop Auckland Castle General Plan* (EST/4/2) omits most of the Scotland Wing and all of the College and west court. An 1858 *Plan of the Castle, Park and demesne* (EST/4/6) shows the west court at a small scale. The buildings seen in earlier drawings all appear here; a building is shown on the west side of the yard south of the west mural tower. Another sketch plan survives as a tracing made by Ewan Christian in October 1889 (EST/4/8). This is at the rather small scale of 4 chains to an inch, or 1:3168. Christian was architect to the Ecclesiastical Commissioners from 1851 to 1895; the plan is labelled 'copied from a map on tracing paper in the mapping department of the offices of the Ecclesiastical Commissioners'. It shows the west mural tower as an open square outside the corner of the west court; inside the court, the Dutch barn and cow house and the smithy are all shaded like the larger buildings of the College.
- 4.13 The 1857 Ordnance Survey Town Plan is the first detailed map of the site (Figure 4). This shows the buildings on the west side of the wall as well as those within the castle. Two small structures are shown at the west side of the yard beside the mural tower and a larger building abuts the Castle wall just south of the yard. Two more houses, nos. 10 and 14 King Street, are shown running back to meet the wall near the middle of the face. Near the south end of the wall, two large buildings and several smaller ones abut the west face. On the east face, the six-bay Dutch barn

and the adjoining cow house are shown, together with the walls of the dung pit. The small privy building and the shed / smithy are present, together with a longer east-west lean-to on the south side of the sloping wall. Later OS maps are at a smaller scale. The 1897 edition shows little significant change. The 1919 map shows the yard south of the tower roofed over. The buildings against the west wall appear on the 1939 map but had been removed before 1962.

- 4.14 A drainage plan made in 1901 (EST/AUC/1) shows no buildings in the southern part of the site (Figure 3D). At that date, the south-east corner of the dung pit had been rebuilt on a curve, a feature that remained when this recording project began. The small shed immediately to its north is labelled 'cow house' and the north end of the west court is marked 'cattle yard'. The tower is shown but not labelled. Its open yard is still shown with a central east gate. A near-contemporary plan attached to correspondence about the Castle's fire insurance policy in 1901-3 (2014/15:14) shows the buildings of the College and west court. On the west wall, the Dutch barn and the building to its south are labelled as 'carriage house and cow byre'. The building against the north wall is marked 'piggeries and stick house' and the label on the tower says 'hen house'.
- 4.15 The Dutch barn was still intact in the mid-20th century. An air photograph on the Britain from Above website, reference EAW005552 ENGLAND, shows it with a hipped roof and a two-storey building in the two southern bays. In this photograph and another taken in 1950 the top of the west wall is clear of vegetation. Both pictures show glazed windows and an intact roof on the west mural tower. The small yard to its south is planted or overgrown.

5. The west wall

- 5.1 Earlier reports have described the whole of the wall in detail (Beamish 2015; Ryder & Degnan 1998). At its north end, the west face of the wall is covered by the yard attached to the south side of the mural tower. South of this, more than half of the wall's length is within two private gardens (Photograph 1). The south end is in the grounds of the new Auckland Tower. The east face was divided in two parts by a sloping section of old wall that ran eastwards on the site of the present Energy Centre's north range (Photographs 2, 3). The account below describes the west curtain wall in two sections, north and south, on either side of this old wall. The longer north end was in the west court where the pillars of the former Dutch barn stand (Photographs 4, 5). The land adjoining the south end was a garden (Photograph 6).
- 5.2 At the time of this project only the extreme north and south parts of the west face were accessible. The masonry on the Welcome Building site and in the whole of the southern part of the east face had recently been consolidated and repointed. For this project, photographs were taken of the whole of the east face and the south end of the west face. Photogrammetric elevations were prepared. A few oblique photographs of the central part of the west face were also taken.

South end: the west face (Figure 5)

- 5.3 The south end contains evidence of a two-storey building with brick-lined fireplaces set into the curtain wall. The building stood here until the 1960s, when the corner site was cleared. At the north end of this upper section, a small step in the head of

the wall marks the north side of that building and a large block, breaking the line of modern coping slabs, is on the line of the south wall. Recent consolidation has filled the large scar of the upper fireplace; a straight joint on the face of three course of brick, at the south side of the lower fireplace, is all that remains visible.

- 5.4 South of this are traces of a long single-storey lean-to. Rafter sockets show the roof line of this structure and a horizontal row of thin slabs marks the height of its low ceiling. Some plaster from the interior remained here until the recent consolidation and repointing of the wall; a small area survives at ground level. There is a small area of random brickwork near the centre of this structure; its function is unknown.

South end: the east face (Figure 5)

- 5.5 Until the construction of the Energy Centre, the east face was divided in two by a sloping wall, formerly part of a cow house. South of this, the wall is fairly plain. It has recently been completely repointed. A thin course of slabs set a little below half-way up the face separates the lower wall from a thinner upper part built of smaller stones. The masonry throughout is random or roughly-coursed rubble. The courses just above the slabs are battered. The only significant feature here is a re-used stone with a Roman inscription (Photograph 7). This is in the lower section of the wall, a little way south of the centre of the wall. It carries the inscription LEG VI; it might have come from the fort at Binchester, about 1.2km north of the site. It is likely that a good deal of dressed stone was removed from the buildings and defences at the fort after it was abandoned. This masonry is likely to have been re-used in buildings throughout the area around the old fort. Another inscribed stone stood close to the foot of the wall (Photograph 8). This has a recessed panel with the legend DURHAM XI / YORK LXIII. Though this looks like a milestone, its irregular shape and very short buried foot show that it is a facsimile, set here as a garden decoration. The 1897 OS map shows that the milestone with this inscription stood about 9km south-east of Auckland Castle; its site is near the modern settlement of Newton Aycliffe at grid reference NZ 28830 25256. The milestone at that location had a bench mark on it and that mark is missing from the stone at Auckland Castle. The road, now part of the A167, has been widened and there is nothing at the site today.
- 5.6 In the angle between the south section and the sloping wall that formed the end of the old cow house, the west wall is higher and rises to the gable of the house on the outside of the boundary. There is a brick flue between the walls. Faint traces of a roof scar from the lean-to structure shown on the 1857 map can still be seen.

North end: the east face (Figure 6)

- 5.7 This long section of wall shows more features than the recently consolidated south end. Parts of the wall top were hidden by ivy but the overall outline could be seen. The wall is at its highest adjacent to the site of the sloping wall [1], where it rises to the gable of a two-storey building on the west side of the wall. The gable has no coping but a covering of slates. A little below its peak, the top of the west wall is preserved in a line of coping slabs [2]. At middle height in this part of the face, covered by the end of the sloping wall and its adjoining chimney, is what the earlier surveys have described as a possible blocked opening [3] (Photograph 9). It is set into a battered section of the face [4]. The possible opening is not clearly visible because of mortar smeared across the masonry of the lower face; its identification as an old window is at best tentative. If it were part of the gabled building, it would

be fairly large opening set off-centre in its end wall. Traces of whitewash from the cow house remain here.

- 5.8 The gable is built onto a stretch of wall that has been raised in height. The top of the raised section is marked by the old coping slabs mentioned above; it extends for about 6.9m north of the gable. Over about half of this length the upper part of the wall face is slightly recessed [5] (Photograph 10). The recessed section has a blocked opening [6] that is set high enough to have served a loft over the byre. A row of twelve pantile ends [7] running across this marks the roof line of the lean-to cow house.
- 5.9 In the lower half of the wall between the end of the old cow house and the west mural tower there are five blocked openings aligned with the blocked breather slits on the outside face [8-12] (Photographs 11-13). These are about 0.9m wide and generally similar in proportion; three have brick in their jambs. They are part of the former Dutch barn, as can be seen from their relationship with the six stone piers that stand nearby. Between the two blocked breathers at the west end there is an anomalous section of masonry that runs from the ground to a point about three-quarters of the way up the wall [13] (Photograph 11). This contains several unusually large and well-squared blocks of stone. It is up to 1.35m wide and 2.65m high; neither side has a clear face and there is no indication that it is part of any feature that once projected from either face of the wall. Immediately to its north is a ragged crack that has been interpreted as a possible straight joint [14]; it is less than a metre high. Near the wall head between the blocked windows [9] and [10] is a beam socket, blocked with brick [15]. Throughout this section of the wall the upper part of the face, a little more than a third of the total height, appears to have been rebuilt. There is a marked change in colour and a less clear distinction in the stonework, with smaller and slightly more evenly-coursed masonry in the upper part of the face [16] (Photograph 12). A discontinuous line of larger stones might represent the fragmentary remains of a former coping at the lower height. At the east end the wall meets the blocked gate [17] beside the west mural tower (Photograph 13). There is a short vertical straight joint between the wall top and the pier that carried the decorative ball finial, demonstrating the heightening of the west curtain; a bend in the joint between wall and blocking marks the recess for the gate (Photograph 14).

6. The mural tower (Figures 7-10)

- 6.1 Archaeological monitoring of the works revealed a good deal of evidence about the roof, inaccessible since Ryder and Degnan first looked at the building, as well as other features in the tower. The restoration work entailed the rebuilding of parts of the upper walls, the installation of stainless steel ties, the replacement of lintels and sections of string course, the opening of two blocked windows and the reinstatement of the ground and upper floors. In the yard to the south, the original external staircase was rebuilt, the original east gate was opened up and a new gateway was made in the west wall.
- 6.2 The building has been described in detail in earlier reports by Peter Ryder (1998, 1999) and Harry Beamish (2015) and a summary of that information is presented here. The two-storey tower is rectangular in plan and measures 6.7m east-west and 4.8m north-south (Photograph 15). At the south-west corner a small rectangular block projects into the south yard; this measures 1.8m east-west and is 0.75m deep.

Against the east face is an external stone staircase rising to a door directly above the ground-floor entrance. There is a single large room on each floor, with a small cupboard in the south-west extension. The low-pitched roof has an embattled parapet that projects slightly on a string course. Inside the building there is a later chimney of stone and brick at the middle of the east wall. All of the walls are built of roughly-coursed sandstone with some bigger rectangular blocks as angle quoins; Ryder points out that on the east side, the lowest quoins are 1.6-1.8m above ground level because this wall is built onto the older precinct wall. All of the masonry is affected by extensive and heavy areas of mortar and there are sizeable crude repairs to the face. These were made with brick, pieces of broken pantile and copious amounts of mortar.

- 6.3 When work began, the ground-floor room had a blocked window in the west wall, a bricked-up door and an original loop in the north wall, and a blocked door at the east. The south face had a square blocked window above the external staircase. On the first floor there was a large bricked-up window in the west wall and a single tall altered opening on the north and east sides. The south wall contained a straight joint marking one side of a fairly large blocked window to the east of the door. There were no openings in the small south-western block. Inside the building, sizeable areas of wall plaster remained on the ground floor and there were smaller areas higher up. Most of the south-west block, which was a little more sheltered from the weather, retained internal plaster and there was some render on the inside face of its parapet.
- 6.4 The west curtain wall runs up to the east end of the tower. A short section of wall at the south-east corner forms one side of the old gateway. When the wall was recorded this was blocked with stone, apart from a small modern doorway. Straight joints at either side of the blocking revealed the presence of rebates for gates. Above, there were moulded caps with ball finials. The blocked gate formed the east side of a small yard, roughly square in plan. Its partly-demolished west wall faced onto Silver Street and abutted, rather awkwardly, the south-east corner of the projecting south block. A straight joint near the curved section of the wall marked the north jamb of an outer gate. The south side of the yard was a plain rubble wall facing gardens behind the houses at the east end of the Market Place.
- 6.5 At the start of work the tower had been roofless for a long time and the surviving internal timbers were badly decayed. The first floor had collapsed and the ground floor was thickly covered with stone, brick and timber debris. On the outside walls, some sections of the string course below the parapet were very badly decayed. A temporary supporting scaffold had been installed to stabilise the parapet and the south face (Photograph 16).

The roof (Figures 7 & 8)

- 6.6 The low-pitched roof was founded on three very large and slightly curved cross- or tie beams, one at the centre and one at either end (Photograph 17). The eastern beam was altered many years ago when the chimney was installed near the middle of the east wall. These heavy timbers supported a single row of purlins at either side of the roof. None of these purlins survived in place when restoration work began; the photographs show timbers recovered from the floor of the building. Each purlin section was fitted into shallow housings that ran through almost the full height of each tie beam (Photographs 18, 19). A shallow rebate above the housings created a

form of saddle joint on the intermediate beam. Each of the purlin beams had a curved jowl at either end and deep plain chamfers along its underside (Photograph 20).

- 6.7 The tie-beams had plain chamfers all round. On their upper angles, these chamfers swept up to be continued in the angles of short blocks or muntins that fulfilled the role of king posts (Photograph 21). Twin-pegged tenons linked the muntins to the tie beams, and tenons or loose tongues on top connected them to the ridge beam. This was a wide timber in two sections, each of which had plain chamfers on its underside. At either side was a rebate cut to the low pitch of the wide, shallow common rafters (Photograph 22). There were 13 pairs of these plain-edged timbers, set close together and tenoned into the ridge beam. Packing pieces of timber filled the shallow gap between the top of the central tie beam and the common rafter above it (Photograph 23). At the west end, these packers were replaced by bricks and mortar. The outer ends of the common rafters rested on heavy wall plates set on an offset below the parapet (Photograph 24). The plates oversailed the inner face of the masonry; a deep chamfer on the lower arris was replicated on projecting closer beams that filled the gaps between the ties. This would have given the effect of a single deep beam at the wall head, with a central rebate between chamfers (Photograph 25). Large square-shank nails fixed these parts together.
- 6.8 The main beams were 300mm deep and 200mm thick (12 x 8 inches); the purlins measured 150 by 100mm (6 x 4 inches) and the common rafters 140 by 100mm (5½ x 4 inches). The structure was extravagant in its use of oak and the roof was massively stronger than was necessary for such a small building. The large size of the timbers and close spacing of the common rafters means that there would have been as much structural timber as ceiling on show in the upper room of the tower.

Masonry repairs (Figures 9 & 10)

- 6.9 Clearance work at the beginning of the project revealed areas of crude repair like those seen on the external faces of the tower (Photographs 26, 27). The most substantial area of damage was on the south wall, where failure of a first-floor lintel had led to subsidence that affected the heavy wall plate below the parapet (Photograph 28). The whole of the north wall was taken down as far as the lintel of the main first-floor window and rebuilt. The other parapet walls were more or less completely dismantled; roots had penetrated the fabric. The rebuilding and repointing work on the upper parts of the walls revealed little of structural significance. Lower down, work on the walls entailed repair, rebuilding, deep tamping and repointing and the replacement of window and door lintels and sills. The profile of the string course was recorded (Photograph 29).
- 6.10 Unless stated otherwise, the interpretations of features set out below follow the account of the building prepared by Peter Ryder and Sue Degnan (1998, 1999).

The north wall

- 6.11 The boarded-up first floor window was opened, revealing plastered brick jambs (Photograph 30). On the west side the brick extends to the stone jamb of an older window about 0.25m from the existing splay. The plaster in the east side extends along the inside face of the wall and there is no sign of a corresponding stone jamb. On the ground floor below this is a smaller splayed loop, an original feature of the building, beside a door with brick jambs that was probably inserted in the 18th

century (Photographs 31, 32). Some plaster remains on the wall at either side of these openings, and extends into the recess at the north-east corner. Against the wall at the north-west corner was a U-shaped stone and brick structure built to support a sink or a counter (Photograph 33).

The east wall

- 6.12 This end of the building is dominated by the brick chimney (Photograph 34) which was probably inserted in the late 18th or early 19th century. There are fireplaces on both floors. The upper one is unaltered but the ground-floor one has been reduced in size (Photographs 35, 36). Some early features can be seen in the recesses at either side of the chimney breast. On the ground floor, the wall at the back of the north recess has been significantly altered and the masonry in its upper part is very thin. Below this, one stone from the south jamb of a door remains. Late 19th-century brick walls stand in front of the old jamb. These were interpreted by Ryder and Degnan as supports for shelves, but the clearance work found that they were built for a copper or set pot. The hearth for heating the water was revealed when the flagged floor was lifted in this corner (Photograph 37). On the floor above, the same recess contains a blocked opening with some large stones on its south side; these suggest that there was an old window in the space later occupied by a brick-backed cupboard (Photograph 38). On the south side of the chimney there are large blocks low in the wall with a straight joint close to the chimney (Photograph 35). The position of these suggests that there might have been a fireplace set into the wall here. On the ground floor, the lower part of the south recess is blocked with brick and rubble.

The south wall

- 6.13 Beside the south recess there is a square window with a straight joint in its sill and in the face below (Photograph 39). This stops a little above the level of the flagged floor and is interpreted as evidence of a door, possibly one created by cutting down an existing splayed window like the one in a similar position on the north wall. The 2019 clearance work revealed a shallow stone sink on the floor below the window; just below the east side of the opening there is the cut-off end of the lead water pipe that is shown on the 1830s drainage plan. The sink must have been set on the floor in recent times as the soil underneath it contained modern rubbish and plastic bags. The timber lintel of the window was replaced and at the same time another heavily decayed horizontal timber running between the window and the door was removed. The function of this beam, which ran across the middle of the wall just below ceiling height, is unknown. There is no evidence of any sort of opening above or below it, and it might simply have been there for fixing pegs or hooks to the wall. The south door has flagstones outside a heavy threshold with the marks of a door frame (Photograph 40); in the small south block there is a higher flagged floor with a brick step. The interior of the small room is plastered but there are no signs of earlier use (Photograph 41). Oblique stone slabs above ceiling level mean that use of this cramped space for a stair would be impossible (Photograph 42). On the first floor, some old plaster remained high up at the east end. A large area of later masonry near this was removed to allow a window to be recreated. This was the fill of a tall, wide blocked opening, the east side of which was lost when the first-floor door was put in. The smaller modern window retains the old plaster on its east jamb (Photographs 43, 44).

The west wall

- 6.14 Two large windows occupy most of this wall (Photograph 45). The ground-floor one was left closed; the upper had been closed up to make a cupboard. This contained a broken shelf with ten holes in it, the remains of the gamekeeper's shotgun rack (Photograph 46). The window has been re-opened and the rack has been retained.

The floors

- 6.15 The ground floor had a slightly irregular flagged surface that survived at the east end and in the corners (Photograph 47). The flags cover the hearth of the copper at the north-east corner, so this part of the floor, at least, must be a fairly recent alteration. The flags had been laid on yellowish brown sand, 0.2m deep, over a compact black soil deposit. The hearth at the north-east corner consisted of mortared brickwork set on sloping flat stones. In the south-west corner, a lead pipe bedded in sand ran north-west. This is the pipe that fed the tap inside the tower and ran on towards the former School of Industry on Silver Street.
- 6.16 At the time of this survey the first floor frame had completely collapsed but the sockets for its three large joists could be seen in the north and south walls. The end timbers, recovered when the supporting scaffold was inserted in 1999, have close-set haunched rebates for the large joists (Photograph 48). Peter Ryder noted that 'between the western beam and the west end wall were four more widely-set joists; a sloping cut in the face of the beam between the southern two joists may have indicated a former stair position'.

The yard

- 6.17 The blocking wall at the east side of the yard was removed, revealing the rebates and some of the pintles for the inner gates (Photographs 49, 50). Clearance work inside the yard revealed a cobbled surface a little higher than the floor of the tower (Photographs 51, 52). This ran slightly downhill from the south-west corner of the yard. The line of a narrow modern service trench was seen in the cobbles.

The development of the tower

- 6.18 The original entrance to the tower was probably at the north end of the east wall. Inside, there was probably a steep timber stair against the west wall. The south block was part of the original design. It probably provided one or more garderobes, though no evidence of arches or openings for emptying these has been seen. The ground-floor room had a small splayed window in its north wall and similar openings may have been removed by alterations in the west and south sides. There was probably a shallow fireplace at the centre of the east wall.
- 6.19 The first-floor room had an impressive timber roof. Its north and south windows were probably larger than in the ground-floor room; later alterations have removed any evidence of the original west window. As on the ground floor, there was a shallow fireplace at the east side of the room. There is no sign of a partition separating the stair at the west.
- 6.20 The presence of an ostentatiously lavish oak roof, fireplaces and perhaps garderobes indicates that, though small, the tower was a building of high status. Such a structure would have been designed for the use of important people within the Bishop's retinue.

7. Monitoring of excavations

- 7.1 During work on the mural tower, some small-scale excavation was undertaken for a service trench. This ran south-eastwards for about 27m from the south-east corner of the tower, in the direction of the former College buildings. The area had formerly been a grassed plot, and later an access route for building works traffic. Natural subsoil was not encountered in any part of the excavation.
- 7.2 The trench was approximately 0.5m wide and between 0.6m and 1m deep. It was cut through mixed made ground and levelling deposits [context 2] with lenses of dolomite [3], overlain by a recent gravel surface [1: 0.1m deep]. At the south end the trench connected with existing services in previously-disturbed ground. No artefacts were recovered and no archaeological features were identified.

8. Scientific dating

- 8.1 Scientific dating work was carried out by the Nottingham Tree-ring Dating Laboratory and Historic England in 2018-19. The full report is part of the Historic England Research Report Series (Arnold *et al.* 2019) and the findings are summarised here.
- 8.2 Samples were taken from eight of the oak roof timbers of the mural tower in an attempt to produce a tree-ring sequence suitable for dendrochronological dating. This proved impossible but a floating sequence (reference AUKBSQ03) covering 57 years was established from various common rafters, all of which are assumed to be of the same date. The longest tree-ring series in sequence AUKBSQ03 was assigned the code AUK-B73. Eight single-ring samples from this group were dated by radiocarbon analysis. Wiggle-matching of the eight results, taking account of the missing sapwood rings on the samples, indicates that five common rafters from the tower's roof came from trees that were felled in the 1420s or 1430s.

9. Conclusions

The west wall

- 9.1 The west wall pre-dates the tower but it contains no significant early features. It contains evidence of many alterations such as changes in height, creation of new openings and incorporation of elements of adjoining buildings. The latter are, or were, houses on the west face of the wall and service buildings on the east. There are no signs of any defensive features; the wall is simply a boundary.

The mural tower

- 9.2 The tower was an addition to the west wall and, like that structure, it was never intended to be a defensive feature. The radiocarbon dates from the roof timbers show that the tower was built in the 1420s or 30s under Thomas Langley, who was Bishop between 1406 and 1437. The date shows that the tower is not connected with the documented construction of the stone gateways of the College in the time of Bishop Boothe.
- 9.3 The tower provided a small separate accommodation block of some status, as demonstrated by the lavish woodwork and the likely provision of fireplace and garderobes. The fact that it was called the Sheriff's Tower in the 17th century

suggests that it might have been built as living quarters for one of the senior servants of the Diocese. The Sheriff of Durham in the period suggested by the scientific dating of the roof timbers was Robert Eure of Bradley Hall and Kimblesworth; he was Sheriff and Escheator of Durham and Sadberge and one of the sons of Ralph Eure of Witton Castle. He would have expected to be provided with accommodation suitable to his status, and such was offered by the Sheriff's Tower. The office holders in the period 1641-1654, when the name Sheriff's Tower appears in historical records, were also all powerful and wealthy men. They included William Collingwood, Henry Vane the Elder of Raby and Barnard Castle, Richard Belaysye of Morton House and Sir James Clavering of Axwell House, Blaydon.

- 9.4 In later years the west mural tower had a variety of much lower-status uses, from latrine to accommodation for the gamekeeper and chicken shed. The fabric of the tower has been repaired and the floors and roof reinstated so that it is once more a useable building.
- 9.5 The archaeological monitoring has not uncovered anything that substantially alters existing interpretations of the form of the building. The most significant additions to our knowledge of the tower are the construction date given by dendrochronology and radiocarbon analyses, and the rediscovery of the building's former name.
- 9.6 It is recommended that consideration should be given to returning the old name of the Sheriff's Tower. That would restore the connection between this small building and the Bishop's administration, a link that has been lost for many years.

10. Sources and references

Documentary sources

- Beamish, H, 2015 *Archaeological recording and evaluation of a section of the west boundary wall of Auckland Castle, Co. Durham*. Unpublished report on behalf of the Auckland Castle Trust. Historic Environment Research and Interpretation.
- Arnold, A, Howard, R, Tyers, C, Tyers, I, Bayliss, A, Bollhalder, S, Hajdas, I, & Wacker, L, 2019 *Auckland Castle, Bishop Auckland, County Durham: Tree-ring Analysis and Radiocarbon Wigglematching of ex situ Oak Timbers from the West Mural Tower*. Historic England Research Report Series **77-2019**.
- Britain From Above Auckland Castle and environs, Bishop Auckland, 1947. <https://britainfromabove.org.uk>, reference EAW005552 ENGLAND.
- Boyle, J, 1892 *Comprehensive Guide to the County of Durham*. London: Walter Scott.
- de Chambre, W, 1839 *Historiae Dunelmensis scriptores tres*. Publications of the Surtees Society **9**.
- Drury, P, 2012 *Historical, architectural and archaeological research and information to inform the development project*. Unpublished brief for the Auckland Castle Trust. Drury McPherson Partnership.
- Hutchinson, T, 2005 *The History of Bishop Auckland*. Seaham: The People's History.
- Kerr, B, 2016 *Auckland Castle – The College: Historic Building Appraisal*. Unpublished report for the Auckland Castle Trust. Purcell.
- Kirby, D, 1971 *Parliamentary Surveys of the Bishopric of Durham*. Publications of the Surtees Society **183**, 1-88.
- Lambert, J, 1796 *Historical Notes re. Auckland Castle*. Manuscript notes, plan and south elevation. DULASC DDR/BP/HIS/3/2.

- Page, W (ed.), 1907 Colleges: Auckland St Andrew, in *A History of the County of Durham: Volume 2*, 126-127.
- Petts, D, & Gerrard, C, 2006 *Shared Visions: The North-East Regional Research Framework for the Historic Environment*. Durham
- Pevsner, N, & Williamson, E, 1983 *County Durham*. Harmondsworth: Penguin.
- Raine, J, 1852 *A brief historical account of the episcopal castle, or palace, of Auckland*. Durham: George Andrews.
- Ryder, P, & Degnan, S, 1998 *Silver Street Gateway and Tower, Bishop Auckland Castle Precinct Wall: an archaeological assessment*. Unpublished report for Liddle Prestridge Hare Ltd, The Church Commissioners and English Heritage / Durham County Council / Wear Valley District Council.
- Ryder, P, & Degnan, S, 1999 *Silver Street Gateway and Tower: recording of the fabric*.
- Spence, J, 1754 *Plan of Bishops-Auckland Park*. Joseph Spence papers, Beinecke Library, Yale University.
- Storey, R, 1961 *Thomas Langley and the bishopric of Durham, 1406-1437*. London: SPCK.
- Woods, F, 1910 *A short sketch of the history of the Barrington School, Bishop Auckland*. Bishop Auckland: Cherrett.

Plans at Durham University Library Archives & Special Collections (DULASC)

N.B. The plans are listed in chronological rather than catalogue order.

- DDR/BP/EST/4/1 Dixon, J, 1772. *A plan of the Park and Demesnes at Auckland Castle belonging to the Right Revd. Father in God John Lord Bishop of Durham, taken in 1772 by Jere: Dixon*.
- DDR/BP/EST/4/9 Anon, ?1800. *Plan of Auckland Castle and the Inner Park*.
- DDR/BP/EST/1/34 Hakewill, H, 1826. Plan of proposed alterations to Auckland Castle.
- DDR/BP/EST/1/33 Anon, December 1829. Proposed court room and school near Auckland Castle, with reference to Thomas Dunn's land and School of Industry.
- DDR/BP/EST/4/3-4 Anon, post-1834. Plan of Castle showing drains and water supplies.
- DDR/BP/EST/4/2 Anon, post-1834. *Bishop Auckland Castle General Plan*.
- DDR/BP/EST/4/6 Anon, 1858. *Plan of the Castle, Park and Demesne lands at and near Bishop Auckland held by the Bishops of Durham*.
- DDR/BP/EST/4/8 Anon, 1889. Sketch plan of Castle and Park, copied from a map in custody of Ecclesiastical Commissioners by Ewan Christian, architect.
- DDR/BP/EST/AUC/1/box 42 (envelopes 6,9) Surveys/schedules and other papers under the dilapidations acts in relation to Auckland Castle, 1901-1920 and 1937.
- DDR/BP/EST/AUC/Misc.2014/15:14 Fire insurance policy, with schedules of buildings and goods, 1901-1903.

Appendix 1: Listing descriptions

Auckland Castle west mural tower and west walls

Grade: I List Entry Number: 1196445
Date first listed: 21-Apr-1952 Date of most recent amendment: 23-May-1994

NZ2130 AUCKLAND CASTLE PARK 634-1/8/85 Auckland Castle west mural tower and 21/04/52 west walls
(Formerly Listed as: MARKET PLACE West mural tower and remains of walling of Castle).

Walls around Auckland Castle garden, yard and lawn to west of castle with west mural tower. First wall is said to have been C14. Extensive rebuilding for Bishop Cosin c. 1660. C18 alterations.

MATERIALS: rubble boundary wall and west tower with ashlar coping, irregular quoins and brick and ashlar blocking to tower. Battlemented ashlar coping to walls around lawn. Brick inner leaf to garden wall with rubble outer leaf on north and west, and coursed squared stone outer leaf facing lawn to rear wing of castle. At west, wall abuts outbuildings of 18 Market Place, and at north end of castle yard has small boarded door to outbuilding set against south wall of mural tower. Pointed arched door in tower south wall. West wall of tower, visible from yard to east of Nos 24 & 25 Market Place, one wide opening on each floor blocked with narrow bricks, and in lower an ashlar slab with cross slit inserted.

INTERIOR of tower derelict with some beam ends for first floor in situ. Substantial beams of low-pitched roof partly fallen. No roof covering visible. Kitchen garden walls tall, with low blocked flue arch. West wall to garden, dividing it from lawn, is thick stone and has high segmental arch inserted at south end and next to this a narrow, blocked pointed arch. In north wall a pointed arch with shaped panelled door.

Listing NGR: NZ 21224 30187

Six pillars 3 metres east of west wall of Auckland Castle

Grade: II List Entry Number: 1196447
Date first listed: 23-May-1994

NZ2130 AUCKLAND CASTLE PARK 634-1/8/86 (East side (off)). Six pillars 3 metres east of west wall of Auckland Castle.

Six piers, probably for hay shed. Possibly C17. Coursed squared stone dressed to correct circle, with ashlar dressings. Six tall round piers spaced approximately 1.5m apart in a line parallel to west wall of Castle Yard. Chamfered bases and high plinths. Chamfered round abaci. Roof removed.

Listing NGR: NZ 21238 30173

Appendix 2: Catalogue of photographs

The photographs were taken by Richard Annis, using a Nikon D3300 DSLR, between 23rd November 2018 and 20th May 2019. Jenny Richards took photograph 37.

No.	Subject
1	The site seen from the Welcome Tower to the south-west. The mural tower is the battlemented building, top left, and the west curtain wall runs diagonally past the new red-roofed Energy Centre at the right
2	The south end of the west curtain wall, seen from the south-east. The sloping wall running up to the gable of the building outside the site marks the south end of the old dung pit. Note the brick chimney in the angle between the stone walls
3	The north face of the sloping wall and traces of the 19th-century cow-house. An old roof line visible beneath the dovecote opening, top right, is what remained of the privy shown on the 1830s drainage plan
4	The view from the north end of the west court, showing the west wall, sloping wall and three piers of the former hay shed
5	The west court seen from the south-west corner, with the piers of the hay shed / coach house. The embattled parapet of the west mural tower can be seen, top left
6	The garden on the east side of the wall. Note the change in thickness halfway up the face. This area is now occupied by the Energy Centre. A view looking south-west
7	The Roman inscription on the east face of the wall, with illegible characters or marks above 'LEG VI'
8	The bogus milestone in the garden beside the east face of the wall
9	The west wall and its junction with the gable of the neighbouring house. The possible blocked opening [3] is at the centre under a row of coping slabs and a few pantiles
10	The recessed section [5] with the blocked opening [6] near its right-hand end. The southernmost [8] of five square blocked openings can be seen at the right. At the far left, the sloping wall is partly demolished
11	Blocked openings [8] and [9] flank an anomalous vertical section of dressed stone [13], just left of centre. There is a ragged straight joint [14] just to the right. Note the yellowish stonework in the upper part of the wall here
12	The change in masonry [16] is visible above blocked openings [9] and [10] here
13	The northern blocked window [12] and the wall [17] that filled the gate beside the tower
14	The south finial of the gate beside the tower. In the centre, the straight joint between the wall and blocking steps to the right at the top of the rebate for the gate
15	The west mural tower before the start of work and after removal of the ball finials. Note the door and recent pointing in the blocking wall [17] near the centre of the view
16	Supporting scaffold in place around the tower's parapet at the start of the remedial work. A view looking north-east
17	The surviving roof timbers seen from the north-east corner of the building
18	The housing for the south purlin, cut into the west face of the middle tie beam
19	The south limb of the western tie beam has a similar housing. The masonry that filled the space between the tie and the common rafter is being removed. At the top left, the ridge beam rests on a short vertical muntin
20	Detail of the jowl at the end of a purlin, photographed in the yard after removal from the floor of the tower

No.	Subject
21	Detail showing the side face at the centre of a tie beam. The two holes were for pegs that fixed a tenon at the bottom of the muntin that served as a tiny king post. At either side, plain chamfers sweep upwards to be continued on the angles of the muntin
22	The junction between the ridge beams (bottom left – top right) with the central tie beam; a pair of common rafters can be seen to the left
23	Side view of the central tie beam, showing the tapered packing pieces that separated the beams from the rafters. The housings for the purlins and the joint at the end of the tie beam can be seen here. A view looking south-west
24	The heavy overhanging wall plate and the closer beam with its large square nails. A view looking south-east
25	Detail of the wall plate and closer at the south-east corner of the tower. Note the gap for the eastern tie beam, removed when the chimney was added to the building
26	Typical low-quality repair work in the upper part of the west face of the tower, with broken pantiles set in thick smears of mortar
27	Daylight is visible between the stones of the south parapet and there is another crude repair below the scale. Cement render covers the upper wall in the south block, at the extreme right
28	The south wall. The severe deflection of the wall plate beams seems to have been caused in part by movement of masonry in the blocked opening under the decayed lintel at the bottom of the picture
29	One of the few undecayed sections of the string course
30	North wall, first floor. Left of the left-hand brick jamb is the side of an older stone window
31	The north wall after repair. The window shown above has new stone and timber lintels. On the ground floor is a small and unaltered window, blocked up. The inserted door to the left is directly under the socket for the central floor beam
32	The western beam socket is intact, above a large area of old plaster. There is more plaster on the splays of the old window at the right
33	A later structure for a stone shelf or a sink, at the north-west corner of the ground floor
34	The east wall and inserted chimney. On the ground floor, space left of the chimney breast was probably the original door. Note the large stones at either side of the chimney on the first floor. The shallow stone sink, bottom right, was placed on the floor in recent times
35	The first-floor fireplace. There is a straight joint marked by plaster immediately right of the chimney breast; this may be what remains of an earlier fireplace
36	The recess north of the ground-floor fireplace contains one rebated stone, arrowed, suggesting the this was an early doorway. The later brick and stone structure was built to support a copper
37	The hearth for the copper was revealed when the flags were lifted
38	Detail of the east wall on the first floor. The large stones to the right of the door frame suggest that there was a window here. On the right of the chimney, more large dressed blocks mark the putative fireplace
39	In the south-east corner, a straight joint runs through the sill of the splayed window. To the left, arrowed, is the lead water pipe shown on the 1830s plan
40	The threshold and sockets for door frames; there was a step down to the flagged floor
41	The floor of the tiny room in the south block is higher than that of the rest of the tower

No.	Subject
42	Diagonal slabs and timber in the ceiling of the south room
43	First floor, south wall; the large blocked window at the centre of the wall. Note the plaster on the splay at the left. Above this, the blocking stonework has slipped forward. The right-hand side of the opening was lost when the doorway was created
44	The same wall after rebuilding, with a smaller window. The straight joint at the left continues below the new sill
45	The west wall and the new roof timbers. There is no masonry between the embrasures of the upper and lower windows
46	The remains of the shotgun rack in the upper window of the west wall
47	Flagstones survived at the east end of the tower, at the north-west corner and in the small south block
48	Timbers of the floor frame, recovered during the first clearance of the tower. Note the large size and close spacing of the rebates for the joists
49	The rebate on the south side of the gateway; compare with 14. An iron hinge pintle can be seen towards the bottom of the picture
50	Detail of the upper pintle on the north side, showing how the stones have been forced apart by rust-jacking
51	The yard and external stair after the gate was re-opened. The straight joint marking the north side of the outer gate can be seen in the far wall. A view looking north-west
52	The cobbled surface of the yard is above the level of the floor in the tower



Photograph 1: The site seen from the Welcome Tower to the south-west. The mural tower is the battlemented building, top left, and the west curtain wall runs diagonally past the new red-roofed Energy Centre at the right



Photograph 2: The south end of the west curtain wall, seen from the south-east. The sloping wall running up to the gable of the building outside the site marks the south end of the old dung pit. Note the brick chimney in the angle between the stone walls



Photograph 3: The north face of the sloping wall and traces of the 19th-century cow-house. An old roof line visible beneath the dovecote opening, top right, is what remained of the privy shown on the 1830s drainage plan



Photograph 4: The view from the north end of the west court, showing the west wall, sloping wall and three piers of the former Dutch barn hay shed



Photograph 5: The west court seen from the south-west corner, with the piers of the hay shed / coach house. The embattled parapet of the west mural tower can be seen, top left



Photograph 6: The garden on the east side of the wall. Note the change in thickness halfway up the face. This area is now occupied by the Energy Centre. A view looking south-west



Photograph 7: The Roman inscription on the east face of the wall, with illegible characters or marks above 'LEG VI'



Photograph 8: The bogus milestone in the garden beside the east face of the wall



Photograph 9: The west wall and its junction with the gable of the neighbouring house. The possible blocked opening [3] is at the centre under a row of coping slabs and a few pantiles



Photograph 10: The recessed section [5] with the blocked opening [6] near its right-hand end. The southernmost [8] of five square blocked openings can be seen at the right. At the far left, the sloping wall is partly demolished



Photograph 11: Blocked openings [8] and [9] flank an anomalous vertical section of dressed stone [13], just left of centre. There is a ragged straight joint [14] just to the right. Note the yellowish stonework in the upper part of the wall here



Photograph 12: The change in masonry [16] is visible above blocked openings [9] and [10] here



Photograph 13: The northern blocked window [12] and the wall [17] that filled the gate beside the tower



Photograph 14: The south finial of the gate beside the tower. In the centre, the straight joint between the wall and blocking steps to the right at the top of the rebate for the gate



Photograph 15: The west mural tower before the start of work and after removal of the ball finials. Note the door and recent pointing in the blocking wall [17] near the centre of the view



Photograph 16: Supporting scaffold in place around the tower's parapet at the start of the remedial work. A view looking north-east



Photograph 17: The surviving roof timbers seen from the north-east corner of the building



Photograph 18: The housing for the south purlin, cut into the west face of the middle tie beam



Photograph 19: The south limb of the western tie beam has a similar housing. The masonry that filled the space between the tie and the common rafter is being removed. At the top left, the ridge beam rests on a short vertical muntin



Photograph 20: Detail of the jowl at the end of a purlin, photographed in the yard after removal from the floor of the tower



Photograph 21: Detail showing the side face at the centre of a tie beam. The two holes were for pegs that fixed a tenon at the bottom of the muntin that served as a tiny king post. At either side, plain chamfers sweep upwards to be continued on the angles of the muntin



Photograph 22: The junction between the ridge beams (bottom left – top right) with the central tie beam; a pair of common rafters can be seen to the left



Photograph 23: Side view of the central tie beam, showing the tapered packing pieces that separated the beams from the rafters. The housings for the purlins and the joint at the end of the tie beam can be seen here. A view looking south-west



Photograph 24: The heavy overhanging wall plate and the closer beam with its large square nails. A view looking south-east



Photograph 25: Detail of the wall plate and closer at the south-east corner of the tower. Note the gap for the eastern tie beam, removed when the chimney was added to the building



Photograph 26: Typical low-quality repair work in the upper part of the west face of the tower, with broken pantiles set in thick smears of mortar



Photograph 27: Daylight is visible between the stones of the south parapet and there is another crude repair below the scale. Cement render covers the upper wall in the south block, at the extreme right



Photograph 28: The south wall. The severe deflection of the wall plate beams seems to have been caused in part by movement of masonry in the blocked opening under the decayed lintel at the bottom of the picture



Photograph 29: One of the few undecayed sections of the string course



Photograph 30: North wall, first floor. Left of the left-hand brick jamb is the side of an older stone window



Photograph 33 (above): A later structure for a stone shelf or a sink, at the north-west corner of the ground floor



Photograph 34 (left): The east wall and inserted chimney. On the ground floor, space left of the chimney breast was probably the original door. Note the large stones at either side of the chimney on the first floor. The shallow stone sink, bottom right, was placed on the floor in recent times



Photograph 35: The first-floor fireplace. There is a straight joint marked by plaster immediately right of the chimney breast; this may be what remains of an earlier fireplace



Photograph 36: The recess north of the ground-floor fireplace contains one rebated stone, arrowed, suggesting the this was an early doorway. The later brick and stone structure was built to support a copper



Photograph 37: The hearth for the copper was revealed when the flags were lifted



Photograph 38: Detail of the east wall on the first floor. The large stones to the right of the door frame suggest that there was a window here. On the right of the chimney, more large dressed blocks mark the putative fireplace



Photograph 39: In the south-east corner, a straight joint runs through the sill of the splayed window. To the left, arrowed, is the lead water pipe shown on the 1830s plan



Photograph 40: The threshold and sockets for door frames; there was a step down to the flagged floor



Photograph 41 (left): The floor of the tiny room in the south block is higher than that of the rest of the tower

Photograph 42 (below): Diagonal slabs and timber in the ceiling of the south room





Photograph 43: First floor, south wall; the large blocked window at the centre of the wall. Note the plaster on the splay at the left. Above this, the blocking stonework has slipped forward. The right-hand side of the opening was lost when the doorway was created



Photograph 44: The same wall after rebuilding, with a smaller window. The straight joint at the left continues below the new sill



Photograph 45 (left): The west wall and the new roof timbers. There is no masonry between the embrasures of the upper and lower windows

Photograph 46 (below): The remains of the shotgun rack in the upper window of the west wall





Photograph 47: Flagstones survived at the east end of the tower, at the north-west corner and in the small south block



Photograph 48: Timbers of the floor frame, recovered during the first clearance of the tower. Note the large size and close spacing of the rebates for the joists



Photograph 49 (left): The rebate on the south side of the gateway; compare with Photograph 14. An iron hinge pintle can be seen towards the bottom of the picture

Photograph 50 (below): Detail of the upper pintle on the north side, showing how the stones have been forced apart by rust-jacking





Photograph 51: The yard and external stair after the gate was re-opened. The straight joint marking the north side of the outer gate can be seen in the far wall. A view looking north-west



Photograph 52: The cobbled surface of the yard is above the level of the floor in the tower

Figure 1: Site location

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 site location

0 1km
scale 1:25 000 for A4 plot

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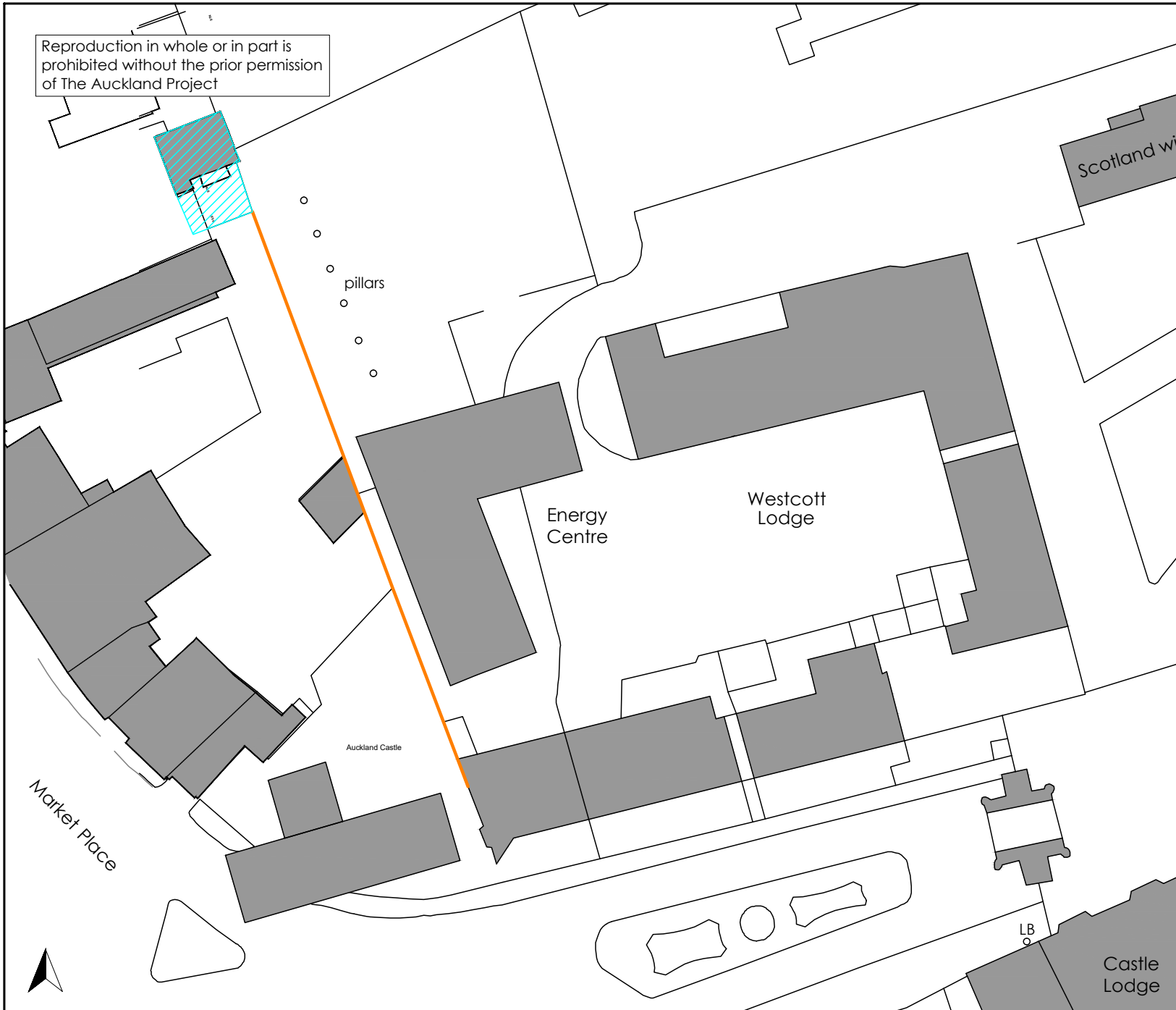
The west curtain wall and mural tower, Auckland Castle
Bishop Auckland
County Durham

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Figure 2: The site and the buildings

0 25m
scale 1:500 for A4 plot

-  mural tower and yard
-  west wall



Auckland Castle

Energy Centre

Westcott Lodge

Scotland wine

LB

Castle Lodge

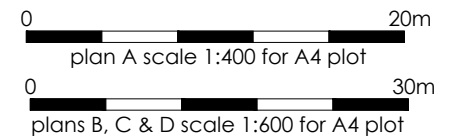
Market Place

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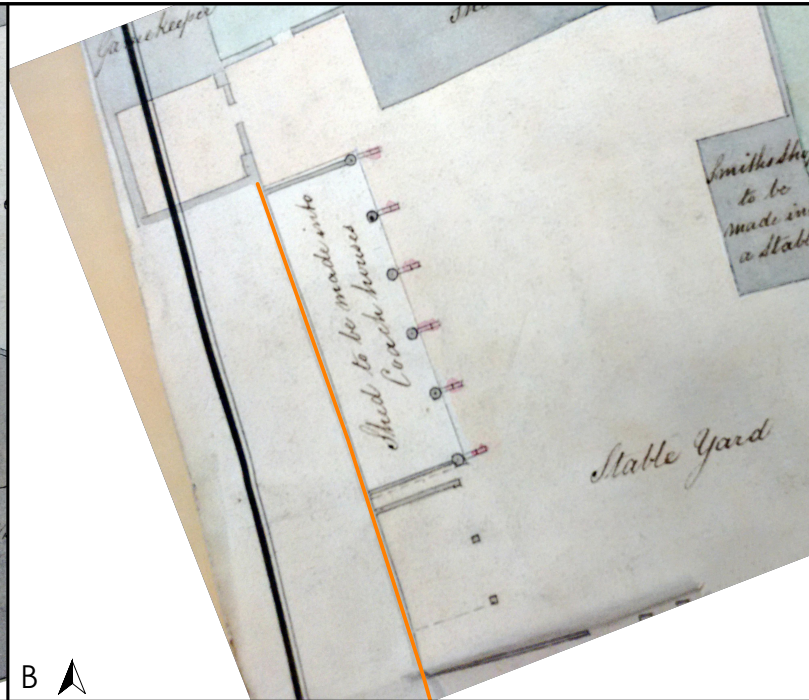
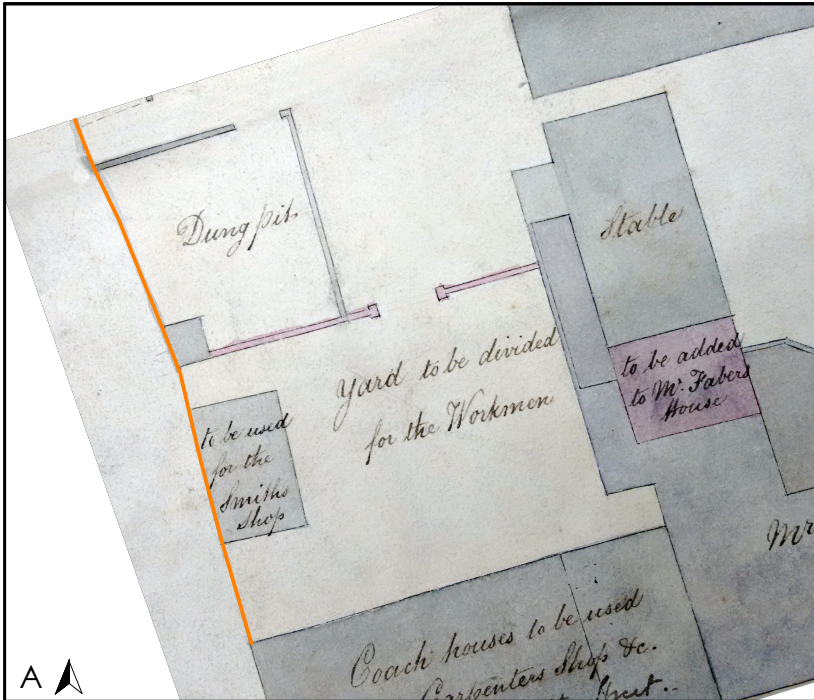
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Figure 3: Extracts from early plans showing the west wall (highlighted)



- A Hakewill's plan c1826 (south end of the wall)
- B Hakewill's plan c1826 (north end of the wall)
- C 1830's drainage plan
- D 1901 drainage plan







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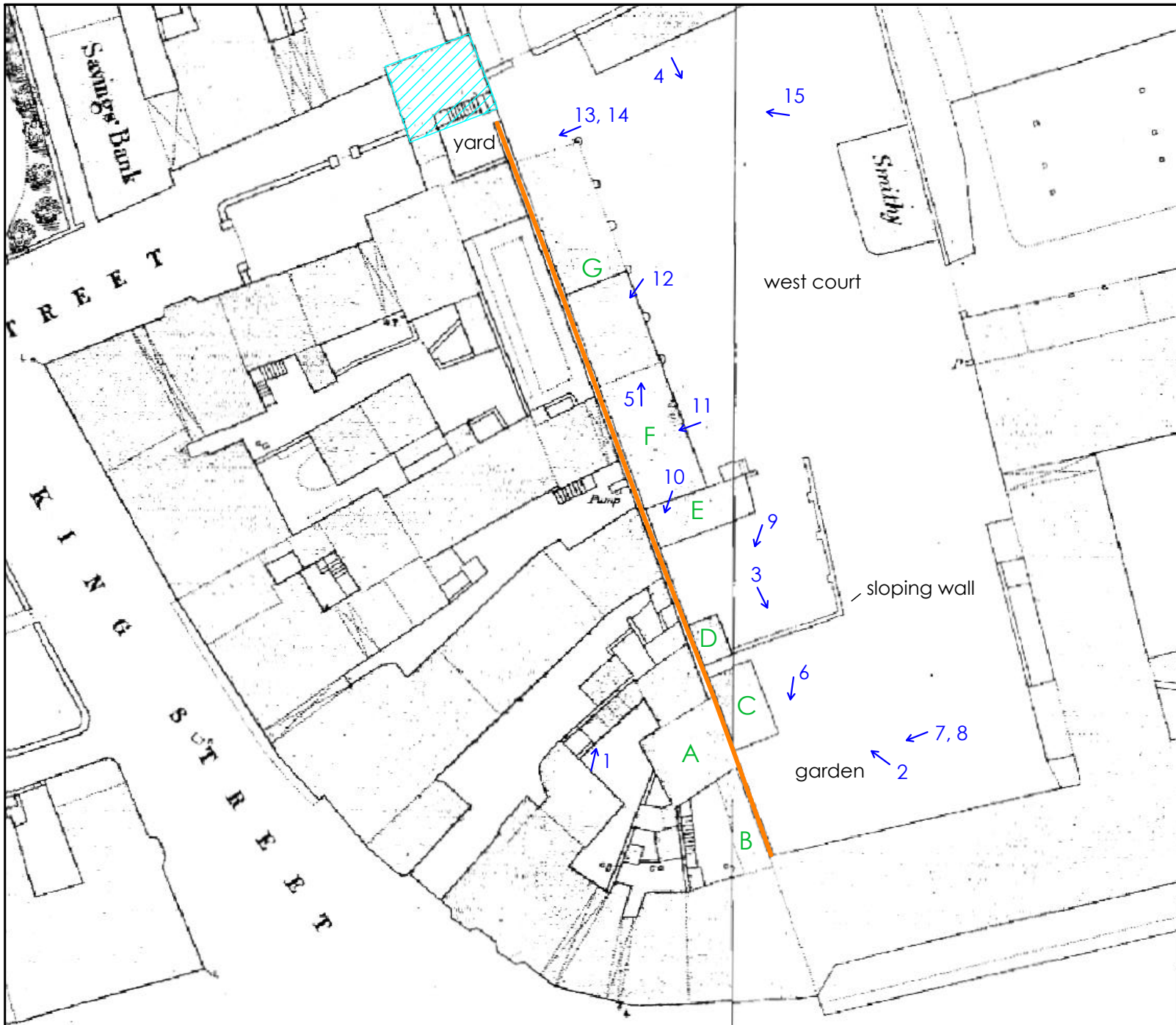
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Figure 4: Extract from the 1857 Town Plan

0  20m
scale 1:400 for A4 plot

	mural tower		west wall
	4		photograph

- A gabled buildings with fireplaces
- B lean-to against the west face
- C shed/ smithy
- D privy in the dung pit yard
- E lean-to
- F cow house
- G hay shed/ coach house

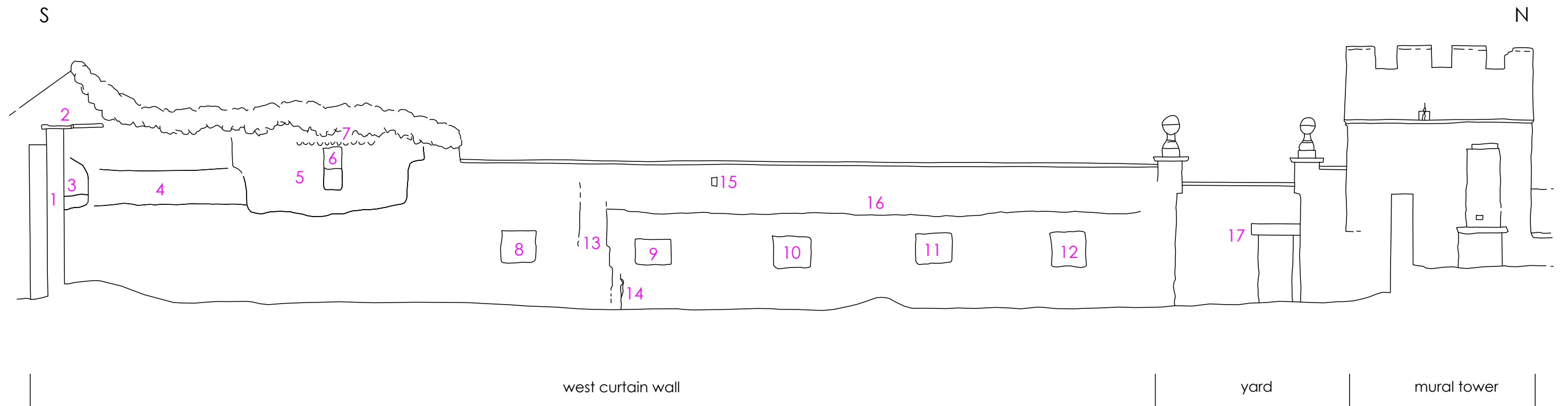


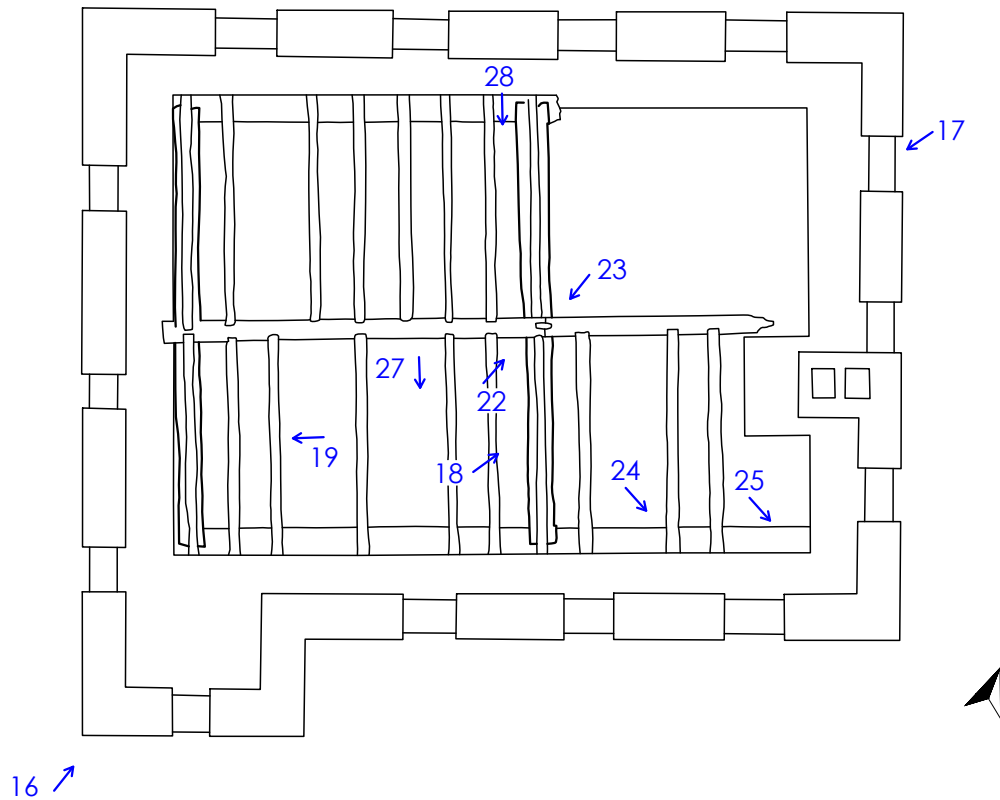


west face



east face





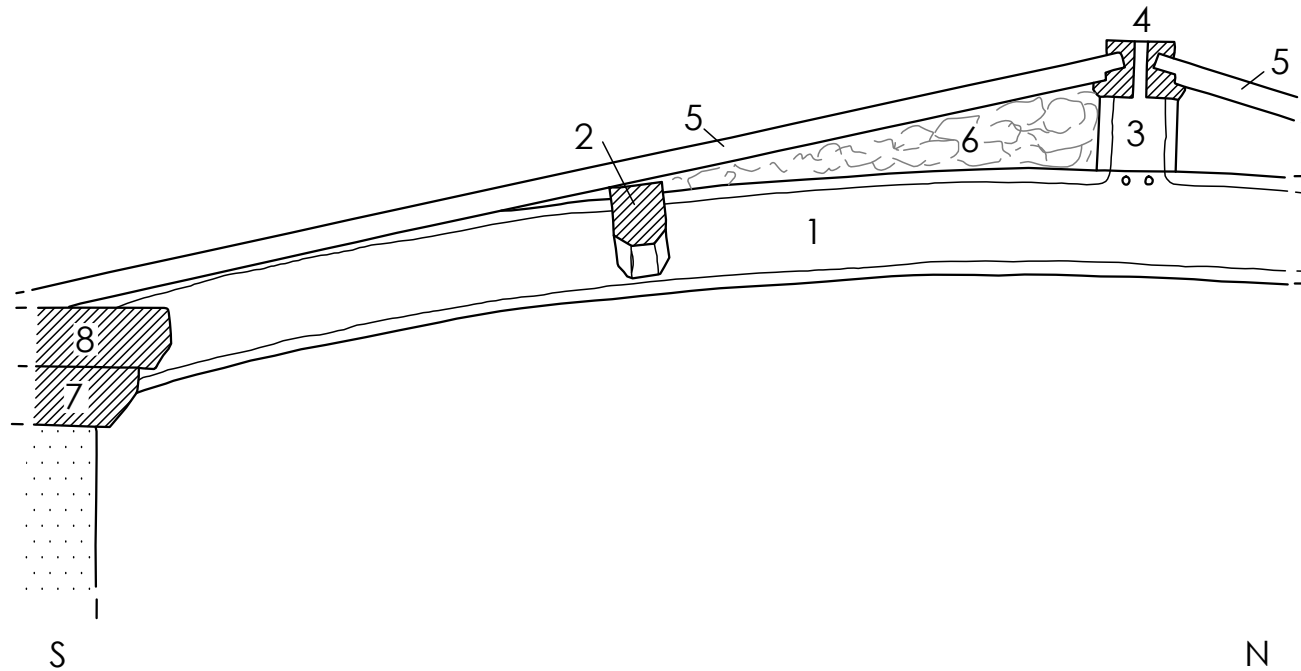
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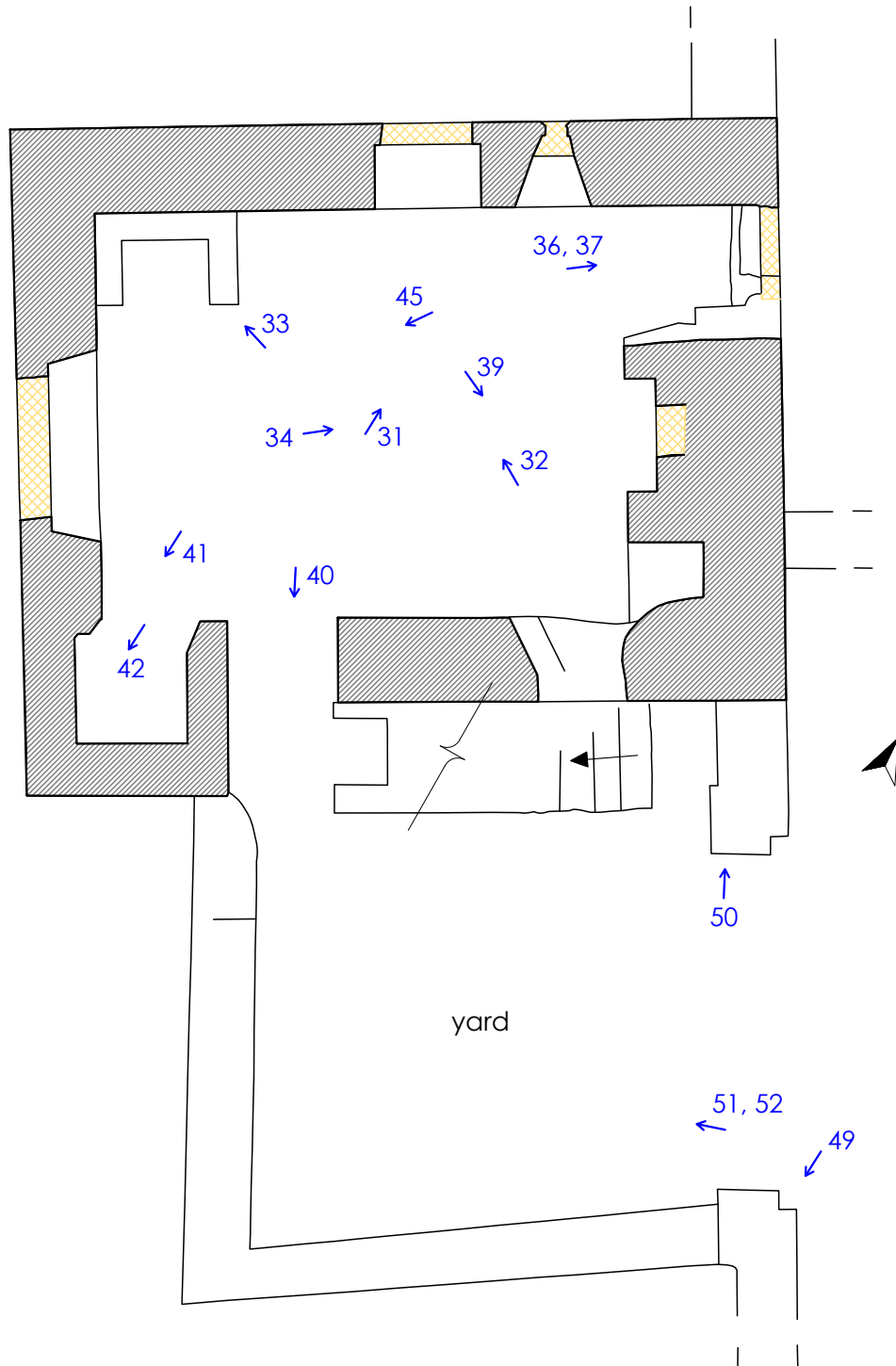
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Figure 8: The roof structure of the
tower

not to scale



- | | | | |
|---|------------|---|----------------|
| 1 | tie beam | 5 | common rafters |
| 2 | purlin | 6 | packing |
| 3 | muntin | 7 | wall plate |
| 4 | ridge beam | 8 | closer beam |



photograph

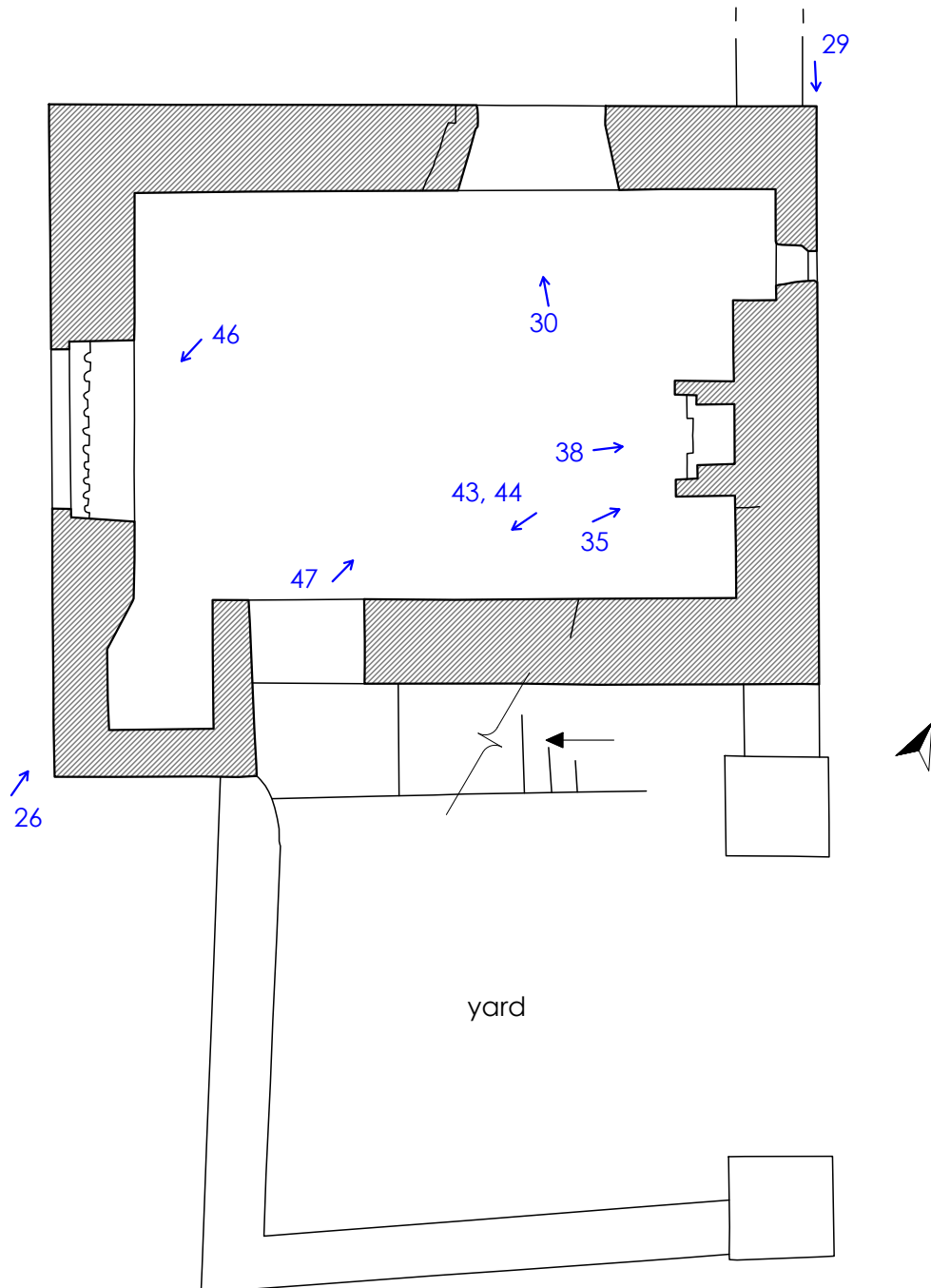


stone



window

0 3m
scale 1:60 for A4 plot



26 photograph

stone

0 3m
scale 1:60 for A4 plot