Excavations at Inverlochy Castle, Inverness-shire, 1983–95

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ABSTRACT

Excavations were carried out at several points around the late 13th-century Inverlochy Castle between 1983 and 1995. In 1983 the interior of the north-east tower and the area immediately outside its entrance were excavated; and part of what is believed to be an 18th-century building was uncovered against the outside face of the north curtain wall. In 1989 the interior of the south-west tower and the adjacent part of the courtyard were investigated. Exploratory trenching outside the south curtain wall in 1994 explored the relationship between a putative barbican and a stone-revetted terrace, perhaps a gun platform. Excavation at the north end of the courtyard in 1995 revealed traces of a building set against the north curtain wall and, within the north-west corner, a single human skeleton. The project was funded by Historic Scotland and its predecessor department, Historic Buildings & Monuments.

INTRODUCTION

PHYSIOGRAPHY AND LOCATION

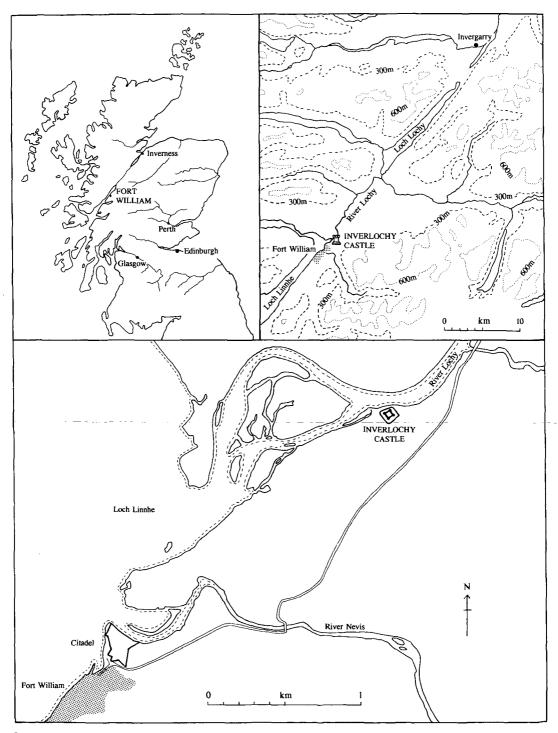
Inverlochy Castle (NGR: NN 121 755) is located approximately 2 km north of Fort William in the shadow of Ben Nevis (illus 1). It lies on the south bank of the River Lochy, close to its confluence with Loch Linnhe. The castle sits upon alluvial gravel, sand and silt as well as lenses of peaty soil; all of which overlie post-glacial raised beach deposits. Outcrops of the underlying solid geology, consisting predominantly of quartz/schist with subordinate bands of quartz/mica/schist, break the surface in places (OS 1975).

HISTORICAL BACKGROUND

Early historians, from Hector Boece in 1527 onwards, record stories of a prosperous, pre-Christian settlement at Inverlochy, largely destroyed by 'the Danes' (presumably Norse raiders) (Brown 1893, 73). No trace of any such settlement has been uncovered although it is likely that the strategic importance of the castle's site, which commands the southern entrance to the Great Glen, was recognized at an early date. Its location adjacent to fresh water and its proximity to the

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ILLUS 1 Location map of Inverlochy Castle. (Based on the Ordnance Survey map © Crown copyright)

sea would have been further incentives for settlement at this point. The castle itself is thought to have been built in the third quarter of the 13th century by one of the Comyns, who were among the first rank of Scottish nobility with lands throughout the north of Scotland at that time. John Comyn, Lord of Badenoch, died at Inverlochy in 1300 (Wyntoun, vol 5, 239). Its surrender to Robert Bruce in November 1307 enabled the king to advance up the Great Glen to confront the Earl of Ross (Barnes & Barrow 1970, 56). After the fall of the Comyns it is likely that the castle was abandoned, at least for some time.

Inverlochy's strategic location resulted in several conflicts around its walls, including a naval engagement near to the castle in 1297 (Stevenson 1870, 190). Continuing friction between the Crown and the Lords of the Isles resulted in the first land battle at Inverlochy in September 1431. In an effort to curb the authority of Alexander Macdonald, third Lord of the Isles (imprisoned by the king at Tantallon Castle), James I set about seizing the lands of Alexander's kinsman, Alastair Carrach. This work was entrusted to Alexander Stewart, Earl of Mar, who levied an army to take possession of the territory around Lochaber for the king. Carrach took to the hills above Inverlochy with more than 200 archers. Donald Balloch (Carrach's nephew) and his clansmen from the Isles approached by sea and attacked the royal forces stationed at Inverlochy under the command of the Earls of Mar and Caithness. The royal army was attacked from both sides and was routed (Nicholson 1974, 316).

Enforcement of royal authority in the Highlands and Islands was to prove a problem for succeeding monarchs. James IV granted the Lordship of Lochaber to Alexander Gordon, Earl of Huntly, who restored and strengthened Inverlochy Castle in 1505 and installed a garrison there to keep the neighbouring clans in check. In 1509 the king made Huntly heritable sheriff for the county of Inverness and designated Inverlochy as the location for holding courts within Lochaber (Mackie 1978, 115).

There was another battle at Inverlochy on 2 February 1645, when the Marquis of Montrose and his army of royalist Highlanders together with Irish levies surprised the Covenanters, under the command of the Marquis of Argyll. The battle began to the south-east of the castle but shifted to the plain to its south, resulting in a bloody defeat for the Covenanters, many of whom took refuge within the castle (Mackie 1978, 217).

The castle was superseded as a military stronghold in 1654 with the construction of the 'citadel' of Inverlochy, one of the five great Cromwellian forts erected in Scotland (the others being at Leith, Inverness, Perth and Ayr). These, along with many smaller forts, were designed to bring order to Scotland (Keith 1908, 283). The Inverlochy citadel was located on a promontory at the confluence of the River Nevis and Loch Linnhe; it was partially incorporated into a new fort (named Fort William) under the command of Colonel John Hill in 1690 (Tabraham & Grove 1995, 40).

In the 18th century the abandoned castle was used as a store by the Invergarry Ironworks Company. The company carried out clearance work and some repairs at the castle although the precise location of these activities is not clear. They also built a new storehouse (Fell 1908, 356) which may have been one of the lean-to buildings against the outside of the north curtain wall. Traces of these structures are still visible in the curtain wall although the buildings themselves no longer stand.

In the early 19th century the lands of Inverlochy were purchased by Sir James Scarlett, first Lord Abinger, who later built a new Castle of Inverlochy (now a hotel), 2 km to the north-east of the medieval castle. The fourth Lord Abinger had crenellations added to the west curtain wall of the original castle, probably in a misguided attempt to make it appear more like a medieval fortification. His actions are thought to have been timed for a journey by Queen Victoria along

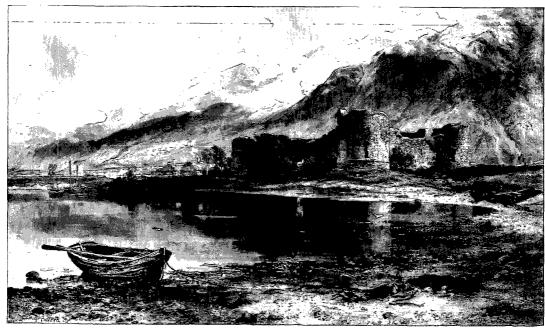
the Fort William to Mallaig railway, its route passing close by the castle. At the time of those alterations, it was reported that a complete skeleton was found sealed up at the northern end of the wall-walk; a number of cannon balls were also found embedded in the castle walls (MacCulloch 1971, 59). Other piecemeal repairs to the fabric of the castle may date from this period: such work ceased with the death of Lord Abinger in 1903.

The castle and surrounding land was bought by the North British Aluminium Company in the early 1920s and finally came into the care of the Secretary of State for Scotland in 1976.

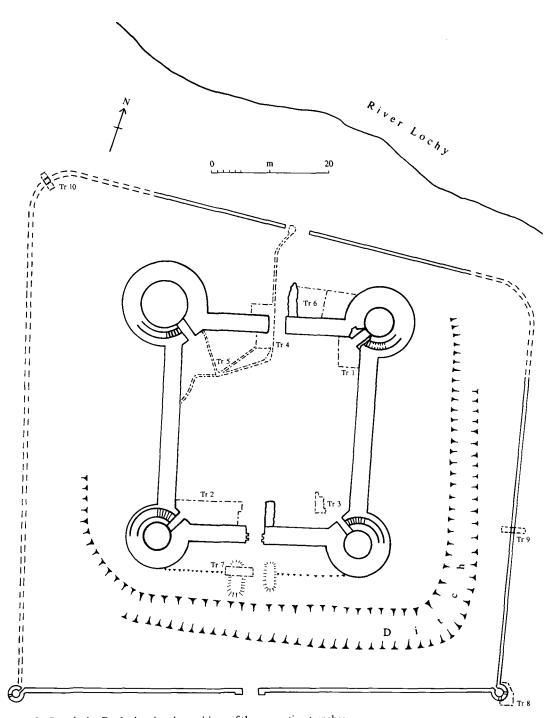
ARCHITECTURAL SUMMARY

The castle forms a roughly square quadrangle with a round tower at each corner, not a common form in Scotland. The few clear parallels include Moulin (Perthshire), Auchencass (Dumfriesshire) and Lochindorb (Moray) Castles — the latter another Comyn stronghold — although obvious similarities are also evident in such strongholds as Dunstaffnage (Argyll), Rothesay (Bute), Bothwell (Lanarkshire) and Kildrummy (Aberdeenshire) Castles.

The largest of Inverlochy's towers, known as Comyn's Tower, was the donjon and measures approximately 6 m in diameter; the north-east, south-east and south-west towers measuring 4.8 m, 4.0 m and 3.8 m in diameter, respectively. The walls are all vertical on the insides of the towers whereas externally they have pronounced batters. There appears to have been a string-course at the top of this batter, at least on the donjon tower, although all trace of it has disappeared since it was depicted in a painting by Horatio McCulloch in 1857 (illus 2). Short passages, 1.2–1.35 m wide, lead through the thickness of their walls into the ground floors of the



ILLUS 2 Inverlochy Castle from the north, painted by Horatio McCulloch in 1857. (Trustees of the National Galleries of Scotland)



ILLUS 3 Inverlochy Castle showing the positions of the excavation trenches

towers. The upper floors of each tower were reached by stairs within the walls, those in the north-west and south-east towers ascending in a clockwise direction and the others ascending counter-clockwise. Access to the stairs in three of the towers was directly from the entrance passage whereas in the north-east tower, where basement level was somewhat below that of the courtyard, the stair commenced within the storey above (see below).

Entry to the courtyard was through gates in the north and south curtain walls. These walls are about 3 m thick and stand mostly to their original height of about 10 m. There is a wide ditch on three sides of the castle, probably connecting with a channel to the nearby river on its fourth (north) side. Outside the castle's defences is a low stone wall with decorative turrets at its southeast and south-west angles. This wall is not medieval and seems to have been a field boundary, at least at first.

Cruden (1981) suggests a date of around 1280 for the construction of Inverlochy, drawing parallels with securely dated, quadrangular castles in England and Wales such as Pevensey (c 1250), Flint (1277) and Harlech (1283), as well as the late 13th-century castles of Lochindorb and Auchencass. Along with its rectangular courtyard and circular corner towers, other typically 13th-century features include long, narrow arrow slits with fish-tail sills which are also found at Dunstaffnage Castle, some 72 km south of Inverlochy; and clasping latrine turrets which also occur in the angle between the south range and the south-east tower of the inner ward of Conwy Castle in North Wales.

More detailed descriptions of the castle can be found in MacGibbon & Ross (1887, 73-8) and Cruden (1981, 58-63).

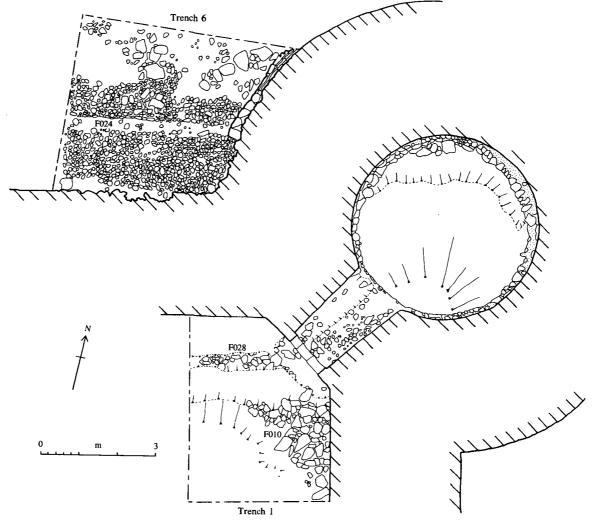
EXCAVATIONS

Excavations at Inverlochy were set against the background of a programme of repairs to the fabric of the castle, some of the archaeological work immediately preceding the consolidation of specific areas of its masonry. These investigations began in 1983 with the excavation of the interior of the north-east tower and the corner of the courtyard next to it (Trench 1); together with the area immediately outside the east end of the north curtain wall (Trench 6). In 1989 the south-west tower and an adjacent trench (Trench 2) alongside the west end of the south curtain wall were excavated and the wall head of the west curtain cleared of debris. The east half of the wall head of the south curtain was cleared early in 1994; later that year there was trenching outside the castle's south gate (Trench 7) and along the course of the probable 19th-century outer boundary wall (Trenches 8, 9 & 10). In 1995 the excavation concentrated on the area of the north gate (Trench 4) although there were also minor investigations at other locations within the courtyard (Trenches 3 & 5).

All site records and associated documents have been deposited in the archive of the National Monuments Record of Scotland.

NORTH-EAST TOWER (TRENCHES 1 & 6, ILLUS 4)

The north-east tower measures 4.8 m in diameter within walls over 3 m thick. Unlike the other three towers, the basement was a self-contained unit with no obvious connection to the floors above. The remnants of a mural stair survive on the south side of the tower but this leads upwards only from first-floor level, access to it perhaps having been from an adjacent east range (see below).



ILLUS 4 The north-east tower, Trench 1 and Trench 6

Prior to excavation, the inside of the tower was infilled with rubble and other destruction debris whose depth (0.75–1.0 m) was less than what might be expected from a building so substantially demolished. Indeed, the evidence suggests that either much of the demolition material had been removed by stone robbers or, perhaps more likely, that an attempt had been made previously to clear much of the overburden from within the castle, perhaps by Lord Abinger in the late 19th century. This is supported by the presence of 19th-century artefacts recovered from the lowest levels of debris within the building.

The foundations of the tower's walls were cut into the hard-packed, orange gravel of the subsoil which contained lenses of river-washed silt; its interior was levelled to a depth of 0.3–0.6 m with sand with some gravel and silt, deepening towards the north and east where the ground slopes down towards the River Lochy. Within these deposits were several disarticulated human bones, presumably from disturbed graves nearby, although the precise source and date of these remains is not known.

The basement of the tower was entered through a doorway 1.15 m wide with sandstone jambs of which two to three courses survived. Each stone of these jambs, as well as those of the threshold, had one of three masons' marks cut into it. Its door, once secured by a draw bar whose slot is 0.7 m above threshold level, would have led into a short passage which widened from 1.3 m adjacent to the doorway to 1.6 m where it opened into the tower. There was a drop of 0.35 m into the passage from the door threshold and a slightly deeper one into the tower itself. It is not clear whether these levels relate to those within the 13th-century castle; there was simply no trace of a floor surface within the tower or the passage, only deposits of mortar and small stones, presumably debris from the building's construction.

No artefacts were recovered from the mortar deposits which had been disturbed by three recent cuts, perhaps associated with the putative clearance of debris from the castle late in the 19th century.

SOUTH-WEST TOWER (TRENCH 2, ILLUS 3)

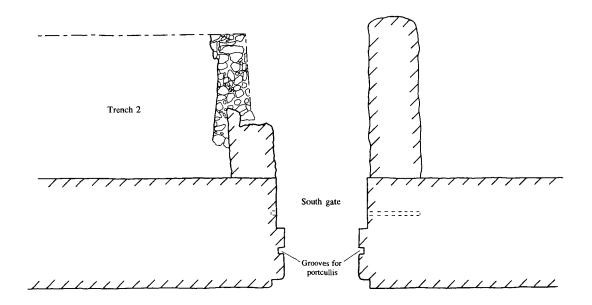
At 3.8 m in diameter, the south-west tower is the smallest of the castle's four towers. The screen wall at the front of the tower survived only as two stubs, each 1.2 m wide, which projected from the west and south curtain walls. A draw-bar slot extended a mere 0.70 m into the west wall of a passage 1.4 m wide that led into the tower. From the same side of the passage a circular stair rancounter-clockwise within the thickness of the wall, giving access to the floors above. Only the two lowest steps survived; these were of sandstone although there was little wear on them, suggesting that they may have been replacements. The foundations of the stair continued upwards only as far as the first storey.

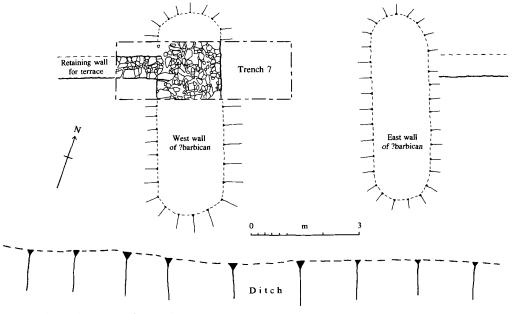
Where the bedrock was high, the tower had been built directly on it; where the rock dipped, its masonry had been laid on the overlying decayed rock and topsoil. The bedrock was at its highest on the north-west and south-east sides of the building. Construction debris of small rubble and mortar covered the whole of the interior of the tower and its entrance passage, there being no trace of a floor surface in either. Topsoil and recently deposited rubble, including 20th-century artefacts, lay directly on the construction deposits within the tower and the passage. This material was 0.3 m deep near the entrance to the tower and up to 1.4 m deep on the opposite side of the building.

There were no features within the ground floor of the tower, indicating that this chamber, like its counterpart on the opposite angle, was probably used as a store. At first-floor level the walls were pierced by arrow slits, one of which remained although its jambs had been removed. There was a fireplace on the southeast side of the tower in its second floor; this would have been the private quarters of one of the castle's officials. Otherwise, little survived at that level. There had been access to the wall-walks of the south and west curtains from this level, although the steps are now missing.

SOUTH ENTRANCE (TRENCH 7, ILLUS 5)

The principal entrance to the castle was in the south wall, through a gateway framed by a depressed arch built of rubble. The door was reinforced to the fore by a portcullis, the grooves for





ILLUS 5 The south entrance, the putative south barbican, the probable artillery terrace and Trench 7

which are still visible, and to the rear by a single draw-bar. Outside the gateway are two ruined walls, perhaps the side walls of a barbican, although some authorities suggest these were associated in some way with a drawbridge (MacGibbon & Ross 1887, 77). To either side of this structure is a raised terrace, retained by a stone wall and extending as far as the respective corner towers.

In order to examine their relationship, a small trench (Trench 7), measuring 4.8 m east/west by 1.5 m wide, was opened at the intersection between the west wall of the putative barbican and the terrace to its west. The wall was 1.8 m wide, stood to a maximum height of about 1 m and was faced with squared blocks of schist enclosing a core of mortar-bonded rubble.

In the western portion of the trench, a deposit of fine gravel covered the surface of the terrace which was retained by a drystone rubble wall, 0.6 m wide. The terrace appeared to have been built after the 'barbican' wall had been reduced to its present height.

NORTH ENTRANCE (TRENCH 4, ILLUS 6)

The north entrance has a pointed arch although much of its masonry is now missing. The door would have been protected externally by a portcullis, its grooves still evident on the sides of the doorway, and on its interior by two pairs of draw-bars whose slots extend into the side walls of the gate passage. There is no trace of an internal gatehouse, although there appears to have been a barbican (or some similar structure), the east wall of which survives to a height of just over 1 m above ground level. Only this wall was evident prior to excavation.

Investigation in this area comprised trenching within the western half of the entrance passage (within Trench 4) together with those areas to its immediate north and south, the latter extending into Trench 5 (see below). At the south end of the passage were several crude flagstones, perhaps the remnants of its floor, which had been disturbed by a modern field drain. Against the south jamb of the doorway was a socket, 0.3 m deep by 0.25 m square, probably to take a door-post.

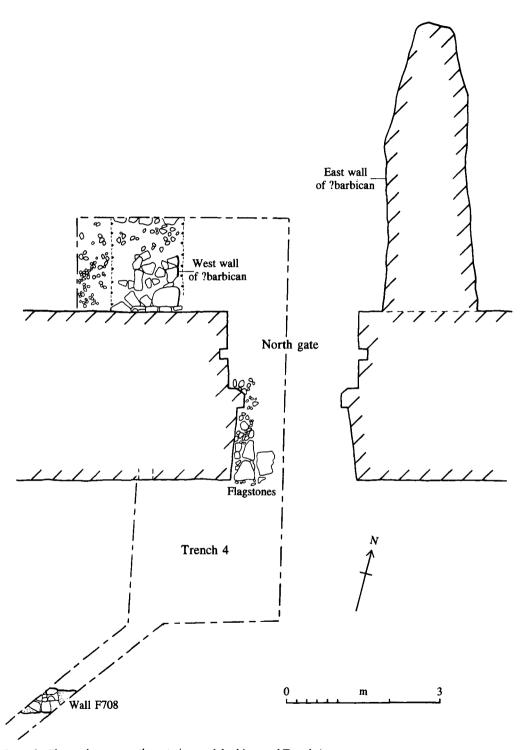
Extending northwards from the curtain wall were the fragmentary foundations of a wall whose bedding trench, 1.5 m wide and 0.3 m deep, cut the orange-brown sand and gravel subsoil. All trace of this wall, presumably the west wall of the supposed barbican, had been removed above ground level, perhaps when the curtain wall was refaced in recent times.

COURTYARD (ILLUS 3)

The quadrangular courtyard measures 30.6 m north/south by 27.3 m east/west. The ground slopes down towards the north, dropping 2 m between the south and north gates. Much of the inner facing of the curtain walls has fallen away, leaving its rubble core exposed. No buildings survive within the courtyard although evidence of such structures can be seen in the faces of the south and east curtain walls. Debris from the collapse of the curtain walls and probably from buildings adjoining them was evident throughout the courtyard and within the north gate passage. Covering much of this rubble was a dark peat-like topsoil, 0.1–0.4 m deep.

North-east (Trench 1, illus 4) This trench measured 5 m north/south by 3.8 m east/west and was located adjacent to the north-east tower. The principal aim of this investigation was to determine how access was gained into the basement and first storey of the tower (see above). In addition, it was hoped that evidence of the building thought to have stood against the east curtain wall would be uncovered; the sockets either for its roof or its second floor were already visible.

There was a considerable depth of deposits in parts of this trench, particularly against the north curtain where materials 2.3 m in depth were removed. The bottom half of this material seemed to be associated with the construction of the castle; the remainder post-dated its abandonment.



ILLUS 6 The north entrance, the putative north barbican and Trench 4

As well as the gradual slope towards the north end of the courtyard, there was an abrupt drop in the subsoil some 3.5 m from the north curtain wall. Although this may have been the result of clearance work prior to the construction of the north-east tower and the north curtain wall, it is thought more likely to have been an ancient riverbank.

The bedding trench for the north curtain, which was continuous with that of the north-east tower, was 0.4 m deep and infilled with large boulders. The foundation trench for the east curtain wall was not uncovered because what were thought to be the remains of other structures were found at a higher level in that area (see below). However, because of the slope, it would have been almost certainly cut from a higher level than that of the north curtain.

As in the nearby tower, the ground level to the north of the old riverbank had been made up with sand and gravel interspersed with rubble, some of it probably construction debris. As might be expected, these deposits were deepest (over 1 m) against the north curtain wall. They were cut by a linear slot (F028), 0.3 m wide and 0.4 m deep, running parallel to the north curtain and about 1 m from it. The slot extended from the western limit of the trench towards the doorway into the north-east tower where it was truncated by a relatively recent cut, perhaps a robber trench. The sides of the linear slot were not eroded, indicating that this feature had not lain open for long. It did not appear to have been a drain: there was no trace of any lining stones and its base was quite level. It bore more resemblance to a beam slot, its location suggesting it supported scaffolding for the construction of the upper levels of the curtain wall rather than the wall of a building set against it.

There was no trace of steps linking the courtyard with the doorway into the north-east tower, a drop of about 0.6 m. However, the few flattish boulders overlying infilled slot F028 and extending southwards from it may have been the remnants of a crude paved surface leading to the entrance.

Ranged along the length of the east curtain wall is a row of putlog holes which either supported a floor at second-storey level or the roof of a two-storey building. No other evidence of this building survives above ground level although excavation uncovered what may have been foundations of its north gable. These comprised a spread of tightly packed boulders (F010), up to 1.6 m wide, running along the edge of the old riverbank and extending 2.1 m from the east curtain at which point they had been truncated. The width of these foundations suggests that the wall was built entirely of masonry rather than timber laid on stone footings. Little work was done beyond this wall line and no evidence was forthcoming for what is assumed to be the interior of a building.

South-west (Trench 2, illus 3) A trench measuring 11 m east/west by 4 m wide was opened against the western section of the south curtain wall, this area being continuous with the interior of the adjacent south-east tower. The excavation was intended to clarify the nature of the raised platform immediately adjacent to the south curtain and, particularly, whether it was associated with any structure that might have been built against the wall. No trace of such a structure was uncovered within this trench, the platform being simply an outcrop of bedrock which sloped steeply down to the north and less so to the east. Crevices within the rock were filled with shattered bedrock and rounded pebbles. The latter, probably fluvio-glacial deposits, covered the whole of the east end of the trench. There were also pockets of dark, humic soil which were particularly deep in the north-west corner of the trench where the rock fell steeply away.

At its west end, the south curtain wall was built directly on the bedrock whereas further east foundations of mortared granite boulders had been inserted where the rock had not been exposed. These foundations were continuous with those of the west wall of the entrance passage.

The structural and natural features were overlain by rubble and topsoil containing 20th-century artefacts, there being no evidence of occupation in this part of the courtyard.

South-east (Trench 3, illus 3) This small, irregular trench was opened to determine whether an L-shaped mound towards the south-east corner of the courtyard represented an identifiable structure or was simply a mound of debris resulting from rubble clearance. No structural remains were uncovered within this trench and excavation was halted at a depth of 0.7 m at which point there was only destruction debris. This had been overlain by recently deposited mortar, sand, midden material and topsoil.

North-west (Trenches 4 & 5, illus 6) A watching brief was carried out during the excavation of narrow trenches to accommodate drainage pipes in the north-west quarter of the courtyard. These trenches, collectively termed Trench 5, ran from the west curtain wall and donjon tower before forming a single trench which connected with Trench 4, located within and adjacent to the north gateway. From there a narrow trench extended northwards to a sump some 15 m north of the castle. The drain trenches were roughly 0.35 m wide, their depths varying between 0.3 m and 0.5 m.

Within Trench 5, at 4.5 m from the curtain wall and parallel to it, were the remains of a wall (F708), constructed of sandstone and schist rubble bonded with pale cream mortar. It was 0.3 m wide and only exposed to a height of 0.15 m. The drain trench was re-routed to avoid this wall.

Piercing the curtain wall, 2.75 m west of the north gateway and 0.3 m above the presumed floor level, was an opening 0.25 m square, possibly a drain, which had been sealed with compact, pale cream mortar and small stones. There was no trace of this feature in the outer face of the wall, the lower courses of which had been refaced in recent times.

Human skeletal remains (Trench 5) Part of an articulated human skeleton was uncovered at a depth of 0.5 m within a narrow grave 6.5 m from the donjon tower. The upper part of the grave had been removed at some stage, leaving only 0.1 m of its depth intact. There was no evidence of a coffin: the grave cut ran close to the edge of the skeleton which was aligned east/west. The leg bones, apparently those of an adult, were extended and the hands, only partly visible in the edge of the trench, appeared to be crossed over the pelvis. Several disarticulated human bones were also recovered from this trench although the limited means of excavation (ie via a watching brief on new service trenches) did not allow a proper interpretation of their deposition. The grave had been backfilled with material identical to the sandy subsoil through which it had been cut; no artefacts or other datable material were retrieved from it. Sealing the grave cut to a depth of 0.3 m was the grey-brown, silty loam and pebbles which appeared to cover much of the courtyard.

WALL HEADS

The west curtain and the eastern section of the south curtain were cleared of vegetation and other accumulated debris before being made waterproof. They narrowed slightly from their bases to their wall heads where they were 2.6-2.7 m wide. At the top of each wall was a wall-walk 1.5 m wide between inner and outer parapets, both of which were generally 0.55-0.6 m wide.

West curtain wall During the late 19th-century alterations by Lord Abinger, the outer skin of this wall was modified to appear crenellated. Although this arrangement could have replaced a similar, earlier one, the absence of crenellations elsewhere in the castle suggests otherwise. There was no doubt, however, that the outer parapet had been built before the wall-walk was laid. With the exception of a few courses of masonry in places along its top, the embrasures were the only recent features within the wall, the resultant merlons being part of its original stonework.

The surface of the wall-walk comprised angular rubble and mortar laid reasonably level; however, there was no trace of flagstones along its entire length. At the south end of the wall was a flight of four steps, the width of the wall-walk, leading to the south-west tower; at its north end, four narrow steps led downwards towards the north-west tower. The stairs were all of mortared rubble, their steps or 'treads' (and perhaps the risers) having been removed. The wall-walk continued across the front of the north-west tower to link with that of the north curtain although there was no access at this level. With this arrangement, those patrolling around the top of the castle would not disturb the occupants of the donjon tower.

A short distance before the tower, the outer parapet of the west curtain was pierced by two slots extending 1.45 m into the wall (one was 0.25 m by 0.25 m in section and the other 0.55 m by 0.25 m). Just to the north of these slots, a single corbel projected from the outer face of the wall. It and the slots (presumably for carrying timber corbels) have been interpreted as supports for a hoarding (Cruden 1981, 59).

South curtain wall Prior to the removal of vegetation, there appeared to be a substantial deposit of debris upon the eastern section of the wall head. Excavation revealed this to be a solid block of mortared rubble, 4 m long, 0.8 m high and extending across the width of the wall-walk. It appeared to have been laid deliberately although its surface was very uneven and there was certainly no surviving imprint of steps upon it. Towards the east end of the wall, a short flight of steps led down to the south-east tower; further west, narrow steps descended towards the now ruined south gate.

OUTSIDE THE NORTH CURTAIN WALL (TRENCH 6, ILLUS 4 & 9)

The outside face of the north curtain wall bears traces of three structures which once lay against it, two of which are shown in a 19th-century drawing (illus 9). There appear to have been two buildings to the west of the north gate: one indicated by four beam sockets at first-floor level, the other by a roof raggle further west. There had been another structure to the east of the gate. The above-ground evidence for this comprised five beam sockets to support its first floor and a roof raggle which extended over the fish-tail arrow slit in the west side of the north-east tower.

Excavation was undertaken to expose more of the latter building and, hopefully, to shed some light on the doorway that pierces the east end of the north curtain at first-floor level but which had been blocked at some stage. The trench (Trench 6) extended from the east wall of the putative barbican as far as the northeast tower, a distance of about 10 m. However, time allowed only the turf to be removed from the western part of the trench leaving only the remaining half of the area, measuring 5.5 m east/west by 4.8 m north/south, to be investigated fully.

Below topsoil 0.50–0.75 m in depth, most of the trench was covered with rounded pebbles which, together with a few larger stones, formed the cobbled floor of a building. The northern edge of the floor, about 3.4 m from the north curtain, was very irregular, having been truncated at some stage. Some of the cobbles had been laid after parts of the facing stonework of the north curtain had collapsed, suggesting that this lean-to building post-dated the abandonment of the castle. The relationship between the building's roof and the arrow slit in the adjacent tower supports this assumption.

Beyond the northern limit of the cobbles was a patch of rubble, perhaps a remnant of the north wall of the building although the evidence was rather flimsy. Running east/west across the middle of the cobbles was a channel (F024) 0.3 m wide. Time did not allow its investigation and its function remains far from clear: the two most likely interpretations are that it was the site of either a drain or a partition. The former seems unlikely because the cobbles either side of it did not slope down towards it; however, a partition within the building at this level would most likely have lain across its width rather than its length. Thus, neither possibility can be favoured on present evidence.

What appeared to be the remains of a drain ran from the north side of the building, close to the northeast tower. It did not seem to run below the cobbles and it was not clear whether they were contemporary.

Finally, the excavation of Trench 6 did nothing to help explain the function or date of a substantial doorway piercing the north curtain at first-floor level. This opening had been blocked at some stage, the date of which is also unknown.

OUTER BOUNDARY (TRENCHES 8-10, ILLUS 3)

Three small trenches (8, 9 & 10) were opened to determine whether the construction of the outer enclosure wall was contemporary with the occupation of the castle, if it had been built over earlier defences, or if it was simply a field boundary with round turrets added as a romantic embellishment. The south wall and its turrets were built of roughly coursed, schist rubble, pinned with smaller stones and bonded with a hard white mortar; the wall stands to a height of 1.4 m. In contrast, the north, east and west walls, where they survived above turf level, included many granite boulders and were bonded with a soft cream mortar.

Trenches 9 and 10 straddled the line of the wall midway along the east side of the enclosure and at its north-west corner, respectively. The west, north and east walls, which were of a single phase of construction, were 0.5 m thick and built of a variety of stones, including schist, slate fragments, sandstone and granitic river boulders, bonded with pale cream mortar. Their foundations had been laid directly upon the sand and gravel subsoil.

In Trench 8, at the south-east angle of the enclosure, the single surviving course of the original south wall of the enclosure, evidently contemporary with the walls on its other three sides, was uncovered. The masonry of the extant south wall had been built over the inner face of this wall.

ARTEFACTS AND OTHER FINDS

COPPER-ALLOY, IRON AND STONE OBJECTS

Julie Franklin

The small finds are few in number but good in quality, identifiable and, in a few cases, datable. All were recovered during the 1983 excavation, mostly in post 18th-century deposits in Trench 1; although two objects (nos 3 & 15) were retrieved from probable 13th-century levels and two (nos 9 & 10) from topsoil in Trench 6. Despite these diverse contexts, almost all of the datable objects were probably associated with the initial occupation of the castle, prior to its abandonment in the early 14th century. The only item clearly of a later date is the rim fragment of an iron cauldron (no 14), one of the few domestic objects within this assemblage. Several of the remaining objects are remains of horse harnesses, weapons and other military gear.

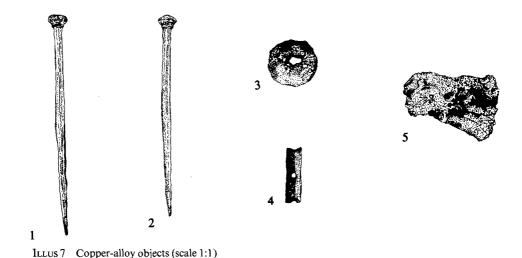
The pins described below are decorative and for securing items of dress. A bulge in the shaft was designed to stop the pin working loose from the fabric. During the 18th century, men used pins as fastenings whereas women tended to use brooches (D Caldwell, pers comm). Several similar pins have been found in Scotland, including a series illustrated by Laing (1973, 61, fig 4, nos 13–17) from the west coast and islands, some with bulging shafts and all with radially incised heads. These he called mushroom-headed pins and dated them, somewhat arbitrarily, to the fifth and sixth centuries although most had no precise provenance.

Another example, recovered from Norse levels at Jarlshof, in Shetland, had an incised mushroom-shaped head and a thick, bulging shaft which can be dated more securely to the ninth century (Hamilton 1956, 127, fig 60, no 5). Other examples have been retrieved from later contexts, such as one from Cullykhan in Banffshire, discovered in the floor of a 12th-century house (Caldwell 1989, 285) and another from Aberdeen, dated by associated pottery to the 14th century (Goodall 1982, 187, illus 107, no 56).

The Inverlochy pins, having no spiral pattern at the top of their shafts, have more in common with the earlier examples. Pins with dome-heads are also found in Ireland where they began to replace ring-headed pins in the 11th century (Caldwell 1989). The Inverlochy pins could date to the ninth century or earlier but the general lack of decorated pins from secure contexts means that such dates should be treated with caution — perhaps a date after the 11th century would be more likely in this case. If these are early pins, this does not necessarily indicate that the site was occupied at an early date: such decorated pins could have been family heirlooms and be of considerable age by the time they were deposited.

Copper-alloy objects (illus 7)

1 Large, complete pin Length 87 mm, width of head 7.5 mm, maximum width of shaft 3.5 mm. Octagonal cross-sectioned shaft, bulging slightly in middle and tapering to point. Edges picked out with rows of

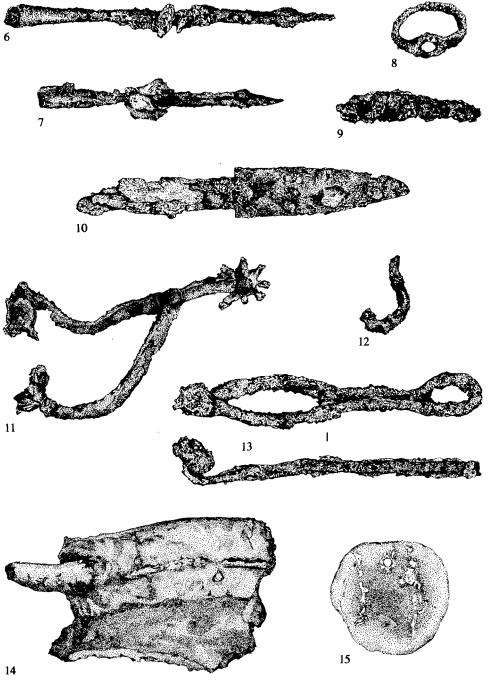


hammered dots and curved lines. Round cushion-shaped head, decorated on top and sides with rough incised cross and radial lines. Trench 1; probable recent disturbance.

- 2 Large, complete pin Length 79 mm, width of head 7 mm, maximum width of shaft 4 mm. Very similar to no 1 but a little smaller and thicker. Octagonal sectioned, bulging shaft decorated with rows of curved lines or triangles. Round, cushion-shaped head, decorated on the top and a little on the underside with radial lines. Trench 1; topsoil.
- 3 **Stud** Diameter 19 mm. Remains of large domed button or decorative fitting with round rivet hole in centre, slightly ripped; no decoration. Possibly from a horse harness or spur leather. Trench 1; fill of cut F028, possibly associated with the construction of the north curtain wall.
- 4 Strap mount Length 21 mm, width 6 mm. Small decorative bar mount for strap. Convex with five facets and tapering slightly at middle. A rivet hole at each end, one still *in situ*, and a larger hole, probably for ornament, in the centre. Possibly from a horse harness strap. Trench 1; probable post-abandonment deposit.
- 5 Plate Length 38 mm, width 26 mm. Thin fragments of plate, bent out of shape and with possible remains of soldering repairs. Possibly part of a vessel. Trench 1; topsoil.

Iron objects (illus 8)

Two arrowheads were retrieved from the topsoil in Trench 1, but may well have been deposited together much earlier. The only significant difference between them is length, both appearing to be complete. They are of London Museum Type 7 (LMMC 1940) and date from late medieval times when arrows were required to pierce increasingly effective armour as well as the leather or cloth behind it. From the 13th century arrows became thinner and heavier in order to exploit any chink there might be in an opponent's armour. By the 14th century this type of arrow was being used in battle to the exclusion of others; different, barbed types were used for hunting. A Scottish



ILLUS 8 Iron and stone objects (scale 1:2)

example has been found at Urquhart Castle (Samson 1982, 468) although its unstratified provenance allows it to be dated only between the 13th and 17th centuries. The best dated example is from Dryseth Castle, Flint (LMMC 1940, 69), which was occupied only from 1241 to 1263.

- 6 Arrowhead Length 176 mm, width at socket 11 mm. Square-sectioned from tip for two-thirds of length; tapers slightly then expands to round-sectioned socket. Socket shows clear seam, possibly made separately from sheet iron. Possible remains of mineralized wood inside socket and attached about half-way along point. Trench 1; topsoil.
- 7 Arrowhead Length 132 mm, width at socket 11 mm. Same type as no 6 but shorter. Square-sectioned at tip and about two-thirds of length, tapering and expanding to round socket. Socket shows seam and has mineralized wood attached to exterior at join of point and socket. Trench 1; topsoil.
- 8 Swivel ring Diameter 31–38 mm, thickness 5 mm. Large ring with hole for rivet or strap. Part of horse harness. Trench 6; topsoil.
- 9 **Blade** Length 77 mm, maximum width 15 mm. Tapering length of iron, sharply triangular in section; possibly a knife blade. Trench 1; probable recent deposit.

Neither the knife (below), nor its X-ray, shows any sign of differential corrosion, often associated with steel edging. It has a whittle tang — the most common medieval type — and is likely to predate the 15th century when scale tangs became common (Cowgill *et al* 1987, 25).

10 Knife Total length 180 mm, length of blade 93 mm, maximum width 28 mm. Triangular blade with wedge-shaped section. Tapering whittle tang with rectangular section. Mineralized remains of wooden handle. Trench 6; topsoil.

The rowel spur described below is a fairly early example, probably dating to the early 14th century. Rowel spurs first appeared in the early 13th century, gradually replacing prick spurs (Ellis 1995). Early examples had a single ring terminal on the outside of the foot to which was attached a leather strap and a slot on the inside for the strap to pass through and secure the spur around the ankle. These features were apparent on an example from Perth (Ellis 1987, 136) and on fragmentary remains from Rattray, Aberdeenshire (Ellis 1993, 185), dated on typological grounds to the late 13th or early 14th century. Examples from Urquhart Castle (Samson 1982, 467, fig 1, nos 1–2), Lochmaben Castle (MacDonald & Laing 1975, 147, fig 10, nos 2–3) and Threave Castle (Caldwell 1981, 114, fig 12, no 114), with figure-of-eight terminals, are dated to the late 14th and early 15th century.

The terminals of the Inverlochy spur are badly corroded, possibly broken, and with partial fittings still attached: even with the help of X-rays, they are hard to identify. It appears to have two single ring terminals with fittings for straps still in place. Evidently, the leather was attached to the flat plate. The ring that is hooked around the other terminal is possibly the remains of a buckle which held the strap in place. The spikes of the rowel wheel are all broken but the length of the shank cleft allows for a large wheel, up to 45 mm in diameter, similar to the cleft in the Perth example which follows the 14th-century fashion for larger wheels (Ellis 1987, 137). The Inverlochy spur is probably an early 14th-century example.

- 11 Rowel spur Length 140 mm, width 92 mm, length of rowel shank 38 mm. Spur with gracefully curving arms. Terminals corroded and difficult to identify but with S-shaped loop attached to left terminal and a small plate, possibly for a buckle, attached to the other arm. Rowel shank quite short with an eight-pointed rowel. No sign of tin plating. Trench 1; topsoil.
- 12 **Hook/nail shaft** Length 40 mm, width 26 mm, thickness 5 mm. Length of square-sectioned iron, bent into hook shape. Possibly a hook or a bent nail shaft. Trench 1; probable post-abandonment deposit.
- 13 Hasp Length 162 mm, maximum width 27 mm, thickness 6 mm. Length of iron bar bent into shape; possibly from a door or window. Trench 1; 18th-century or later deposit.

The cauldron resembles typical medieval bronze examples. However, being of cast iron, it does not pre-date the 16th century.

14 Cauldron rim Length 135 mm, width 7.3 mm, wall thickness 4 mm, vessel diameter 270 mm. Large rim fragment of cast-iron vessel with plain flanged rim and part of handle protruding from just below rim. Trench 1; probable recent deposit.

Stone object (illus 8)

15 **Perforated disc** Diameter 60–63 mm, thickness 11 mm. Disc roughly made from shale or slate. Small hole (4 mm diameter) drilled towards edge. Probably a loom weight or net sinker. Trench 1; fill of construction trench for north curtain wall.

POTTERY

George Haggarty

Fragments of only 11 vessels dating from the occupation of the castle were recovered during the excavations, nearly all of them from Trench 1 or the north-east tower.

Late 13th century

- 1 Ten sherds from a typical Saintonge jug; fine white-buff fabric with red iron oxide inclusions; external copper-green glaze; one of the two rim sherds shows evidence of a parrot-beak spout. Retrieved from construction levels in Trench 1 and the north-east tower and in a recent disturbance within the entrance passage into the tower.
- 2 Two tiny sherds, possibly French; fine, pink, sandy, micaceous fabric; external copper-green glaze. Retrieved from construction debris in Trench 1 and the north-east tower.
- 3 One small, abraded sherd of French vessel; gritty, light buff fabric with red iron oxide inclusions; patchy, light amber external glaze. Retrieved from a probable 18th-century disturbance in Trench 1.
- 4 One small sherd of French vessel; white/pale grey fabric; external copper-green glaze. Retrieved from a probable 18th-century disturbance in Trench 1.

14th/15th century

All of the sherds from the following four vessels were recovered from disturbed levels within Trench 1.

- 5 Two body sherds of probable Scottish vessel; reduced, quartz-tempered fabric; external green glaze.
- 6 Four sherds (three body and one rim) of small, probable Scottish cooking pot; quartz-tempered fabric; external patches of lead glaze.
- 7 Six sherds (three conjoining base, two conjoining rim and large bridge spout and one body); smooth, pink, sandy fabric with some mica; external green glaze.
- 8 Four body sherds, possibly French; reduced, light grey internal surface to fabric with abundant red iron oxide, some mica, quartz and other inclusions; external splashed lead glaze.

16th century

- 9 Two sherds from flat base of jug with traces of basal thumbing; probably Scottish; sandy, buff fabric. Retrieved from topsoil in Trench 1.
- 10 One base sherd from thick jug; dark grey reduced fabric with oxidized external surface; fine quartz tempering, making fabric grittier than most Scottish material of this period. Retrieved from topsoil in Trench 3.
- 11 Strap-handle fragment from jug; Scottish; grey, reduced fabric with oxidized external surface; much finer tempering than Vessel 10; green glaze on top surface. Retrieved from robber trench against the doorway into the north-east tower.

IRON-WORKING DEBRIS

Irene Cullen

Only four samples of iron-working debris were analysed, most of the material collected from the 1983 excavation having been lost while in storage. All of this material was recovered from post-abandonment deposits. Each sample was cleaned, weighed, visually examined and tested magnetically.

One sample, weighing 150.9 g, resembled bloomery slag, the waste product of the direct iron-smelting process. Another sample, weighing 7.9 g, was a small fragment of vitrified rock with a glassy, vitreous coating. This would have been produced at a very high temperature and was probably a small fragment of furnace lining. The remaining two pieces (weighing 527.0 g and 195.8 g) were very similar in composition. They consisted of concreted masses of what appeared to be bloom-working debris: floor material, hammer-slag and the corrosion products that tend to surround iron objects. These latter materials, some of which had impressions of straw and wood on them, resembled debris from a smithy; although, as with the other samples, they may have been waste products from a blast furnace which can vary considerably in appearance and composition. There was charcoal associated with all of the samples.

ANIMAL AND HUMAN REMAINS

Jennifer Thoms

Both animal and human bones were recovered from the excavation, the latter mostly from the burial disturbed by the drainage trench (Trench 5) and within levelling deposits associated with the construction of the north curtain wall and the north-east tower.

Animal bones

The mammalian species that could be positively identified were cattle (*Bos taurus*), pig (*Sus sp*), sheep (*Ovis aries*) and dog (*Canis familiaris*). One bird bone, probably pheasant (*Phasanius sp*), was also recovered. However, because of their poor states of preservation, comparatively few bones could be identified to one species.

The most interesting bones were skull fragments from an adult pig. The pattern of wear on the maxillary teeth was unusual, the first molars (M1) being worn down almost to their roots whilst the third molars (M3) showed hardly any signs of wear. This made it impossible to age the animal by the method favoured by Grant (1982) although the degree of wear on the front molars suggests it was a mature animal, probably breeding stock. The difference between the wear on the first and third molars suggests the pig was prevented from chewing by some sort of tethering device.

Human bones

There were two principal groups of contexts containing human remains: those dating from the construction of the north curtain wall and the north-east tower; and those associated with the burial in the north-west corner of the courtyard. The former included a wide range of disarticulated bones including long bones from at least four individuals. As well as two femurs removed from the single burial identified in the north-west courtyard, several other human bones were recovered from Trench 5.

DISCUSSION

Many of the excavation trenches at Inverlochy were somewhat limited in area and, as is common on such archaeological investigations, the information gathered from them has posed as many questions as have been answered. Nevertheless, several interesting discoveries were made concerning the construction of the castle and its occupation and use over several centuries. These relate to the original scheme for the castle and later alterations to its fabric including those post-dating its abandonment as a residence.

THE 13TH-CENTURY CASTLE

The castle was built on gently sloping ground, terminating on its north side beyond the edge of what was once the south bank of the River Lochy. Following the construction of the castle enclosure, the north end of the courtyard was then levelled with up to 1 m of deposits; lesser volumes of material being used within the north-east tower. The disarticulated human remains recovered from within the tower suggests that there was a cemetery near to the castle (perhaps on the site of the ditch) in the 13th century. It can probably be assumed that the cemetery was unknown to the castle builders although the state of preservation of the bones suggests that they were not prehistoric in date.

Access arrangements within the north-east tower differed somewhat from those within the other three towers where mural stairs ran upwards from the ground floor. In the north-east tower

the stairs appeared to start at the first storey and it is far from obvious how access was gained to that level. Whilst conceivably there could have been a timber stair outside the tower, this would be a rather inconvenient arrangement considering the ease with which mural stairs had been incorporated into the other three towers from ground level. Perhaps the most likely explanation is that the first floor of the north-east tower was entered directly from a range of buildings set against the east curtain wall. The long line of beam sockets high up in the curtain wall demonstrates that such a building had stood there. The foundations (uncovered in Trench 1) of what is interpreted as its north gable tends to substantiate this suggestion: unfortunately, no other material evidence of such a structure was revealed by excavation.

There also appears to have been a building set against the west side of the north curtain. Its south wall, a short section of which was uncovered in Trench 5, was rather narrow, suggesting that this was simply the base for a timber wall. This building was 4 m wide (north/south) internally and, on the evidence of a row of sockets set into the face of the curtain wall, comprised only a single storey with a maximum height of about 2 m. The probable drain outlet (later blocked) at the east end of this structure suggests it served some sort of domestic purpose.

It is unlikely that anything had stood against the west end of the south curtain wall because of the high level of the bedrock. Evidence for such buildings adjacent to the east end of that wall and against the west curtain awaits excavation in those parts of the courtyard although the walls themselves offer no clues.

Both entrances to the castle were guarded by heavily defended gates, each with a portcullis before it, in a similar arrangement to that at the 13th-century remodelled Rothesay Castle on the Isle of Bute. There appears to have been a small gatehouse inside the south (main) entrance at Inverlochy although there does not seem to have been one on the north side of the castle. Outside each gate was what may be interpreted as a barbican, comprising a pair of walls enclosing a narrow passage. The east wall of this putative barbican appears to be tied into the curtain wall at foundation level although such evidence has been completely removed from its neighbouring wall. A similar relationship has yet to be established at the south gate. Excavation was unable to confirm the dates when either of these structures was built. Simple barbicans of this type, forming projecting passages with an outer gate, are found at English castles such as Dover (12th century), Chepstow (13th century) and at the Walmgate Bar on the wall encircling York (14th century). No direct Scottish parallel survives. A more elaborate, Z-shaped passage protects the single entrance at Auchencass which otherwise has a very similar ground plan (and probably a similar date of construction) to that of Inverlochy (MacGibbon & Ross 1889, 105-6); and the re-entrant angle of the L-shaped David's Tower of Edinburgh Castle was enclosed as a barbican in the 15th century. Otherwise, projecting foreworks tended to be much more substantial structures such as those at the great castles of Kildrummy and Bothwell (at least in its original, intended form) and at Harlech in North Wales.

The arrangement on the north side of Inverlochy would have been complicated somewhat by the proximity of the River Lochy. Although it can be accepted that the river was used to flood the ditch surrounding three sides of the castle, it is far from clear just how its fourth (north) side was protected. The situation was probably complicated by the need to maintain access to river traffic, probably the only reliable means of getting supplies into the castle. The area outside the north gate of the castle is still liable to flooding when the river level is high and, in all likelihood, some system of holding the waters back would have been necessary from the 13th century onwards. Thus elements of defence (both against attackers and the river) may have been integrated with a harbour or at least a jetty.

The first-floor doorway that pierces the east end of the north curtain was perhaps associated with such a harbour, enabling goods to be unloaded from boats pulled up directly below the castle walls. This doorway, whose level corresponded with that of the first storey of the north-east tower, was blocked at some stage, conceivably for reasons of security and perhaps on the orders of the Earl of Huntly.

ADDITIONS AND ALTERATIONS

The evidence suggests that Inverlochy was abandoned shortly after it was forfeited by the Comyns in the early 14th century. While the Earl of Huntly evidently refortified and upgraded the castle in the early 16th century, it is not known just what measures he took to strengthen its defences or to improve its residential qualities; perhaps no trace of such modifications have survived into the present century. It has been suggested that the 'barbicans' outside the castle's gates date from this period, but no evidence has been forthcoming to support this view. Whatever their date, the one outside the south gate of the castle was certainly demolished before the terraces were built against the curtain wall. MacGibbon & Ross (1887, 77, fig 53) suggest they were gun emplacements; a reasonable interpretation given the events of 1645 when the Covenanters under the Marquis of Argyll unsuccessfully attempted to fend off the army of the Marquis of Montrose.

The retreat into the comparative safety of the castle enclosure may have been the occasion of the burial which was partly uncovered at the north end of the courtyard; and, on the evidence of several disarticulated bones nearby, perhaps others too. It is unlikely that such a burial (a Christian one, on the evidence of its east/west alignment) would date from the occupation of the castle — unless it was during the battles of 1431 or 1645; and there is nothing to indicate that this area was used as a formal graveyard after its abandonment.

Perhaps the most difficult features to interpret are the three buildings which stood against the outside face of the north curtain wall. Two of these are shown by a painting of Inverlochy Castle which was probably drawn a short time before its publication in 1836 (illus 9)¹, but the evidence of paintings by Michel Bouquet (c 1850) and Horatio McCulloch (1857; illus 2) attests that both structures had been demolished by the 1850s (these latter paintings are held by the National Library of Scotland and the National Gallery of Scotland respectively).

The easternmost of these structures, part of whose floor was probably that uncovered in 1983, was a lean-to building extending as far as (and perhaps sharing a wall with) the medieval structure interpreted as a barbican. The other building, just to the west of the north gate, had been built gable-on to the curtain wall. Whereas the castle is depicted as a partial ruin, both external buildings are roofed, suggesting they were not of any great age when the 1836 picture was drawn. The archaeological evidence supports this: the cobbled floor of the building to the east of the gate had clearly been laid after some of the facing stones of the curtain wall had fallen away.

Why, then, should these two structures be erected after the castle was abandoned? The most likely explanation is that they were occupied by the Invergarry Ironworks which is known to have used the castle as a store for pig iron during the short, turbulent period (1729–36) when the works was in production. From Inverlochy, most of the iron was sent to Bristol; some made its way to Cumbria and other English destinations; a small amount was used in nearby Fort William; a few 'pigs' were even used as grave markers at locations within the glen (Fell 1908, 355-6). The iron was transported by river-boat from the furnace, some 35 km to the north-east of the castle, the boats presumably carrying Cumbrian haematite ore on the return trip. The iron-working debris recovered from the upper levels within Trench 1 may have been associated with this enterprise



ILLUS 9 The north side of Inverlochy Castle, in a painting of c 1836, showing two lean-to structures against the north curtain wall

(Cullen, above); although it resembles the waste from bloomeries and smithies, similar slags were sometimes produced in charcoal-fired blast furnaces such as Bonawe in Argyll.

Excavation confirmed that the outer enclosure wall was not part of the medieval castle's defences, a view not shared by everyone, however (eg Toy 1966, 133). The north, east and west walls of this enclosure appear to be of a single phase of construction whereas the extant remains of the south wall, including its turrets, are clearly later. Evidently the outer enclosure surrounded the castle in 1840 (Campbell-Smith 1840), but it is not clear whether the turrets on its south wall had been built by then. The first edition Ordnance Survey, however, shows the turrets in place by the 1870s (published 1876; surveyed 1871). It is tempting to consider this rather fanciful structure as the product of the same mind which conceived of placing the crenellations atop the west curtain wall in the late 19th century, that of the fourth Lord Abinger.

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NOTE

1 The authors would be grateful for any information on the source of this print.

REFERENCES

Barnes, P M & Barrow, G W S 1970 'The Movements of Robert Bruce between September 1307 and May 1308', Scott Hist Rev, 49 (1970), 46-59.

Brown, P Hume 1893 Scotland before 1700. Edinburgh.

Caldwell, D H 1981 'Metalwork', in Good, G L & Tabraham, C J 'Excavations at Threave Castle, Galloway, 1974–78', Medieval Archaeol, 25 (1981), 90–140.

Caldwell, D H 1989 'The Finds', in Greig, M K & Greig, C 'Remains of a 12th-century structure and other medieval features on the Knoll of Castle Point, Troup (Cullykhan), Banff and Buchan', Proc Soc Antiq Scot, 119 (1989), 279-96.

Campbell-Smith, G 1840 Map of the lands of Inverlochy Castle. Edinburgh.

Cowgill, J, de Neergaard, M & Griffiths, N 1987 Medieval Finds from Excavations in London, 1: knives and scabbards. London.

Cruden, S 1981 The Scottish Castle (1st edn 1960). Edinburgh.

Ellis, B M A 1987 'Spur', in Holdsworth, P (ed) Excavations in the Medieval Burgh of Perth 1979–1981, 137. Edinburgh. (= Soc Antiq Scot Monogr Ser, 5).

Ellis, B M A 1993 'Spurs', in Murray, H K & Murray, J C 'Excavations at Rattray, Aberdeenshire: a Scottish deserted burgh', Medieval Archaeol, 37 (1993), 109–218.

Ellis, B M A 1995 'Spurs and spur fittings', in Clark, J (ed) Medieval Finds from Excavations in London, 5: the medieval horse and its equipment c 1150–1450. London.

Fell, A 1908 The Early Iron Industry of Furness and District. Ulverston.

Goodall, A R 1982 'Copper alloy objects', in Murray, J C (ed) Excavations in the Medieval Burgh of Aberdeen 1973–81, 187. Edinburgh. (= Soc Antiq Scot Monogr Ser, 2).

Grant, A 1982 'The use of toothwear as a guide to the age of domestic ungulates', in Wilson, R, Gregson, S & Payne, S (eds) Ageing and Sexing Animal Bones, 91–108. Oxford. (= BAR Brit Ser, 109).

Hamilton, J R C 1956 Excavations at Jarlshof, Shetland. Edinburgh. (= Ministry of Works Archaeol Rep. 1).

Keith, T 1908 'Economic condition of Scotland under the Commonwealth and Protectorate', Scot Hist Rev, 5 (1908), 273-84.

Laing, L 1973 'People and pins in Dark Age Scotland', *Trans Dumfriesshire Galloway Natur Hist Antiq Soc*, 50 (1973), 53-71.

LMMC 1940 London Museum Medieval Catalogue. London. (= London Museum Catalogues, 7).

MacCulloch, D B 1971 Romantic Lochaber, Arisaig and Morar. 3rd edn. Edinburgh.

Macdonald, A D S & Laing, L R 1975 'Excavations at Lochmaben Castle, Dumfriesshire', *Proc Soc Antiq Scot*, 106 (1974–5), 124–57.

MacGibbon, D & Ross, T 1887 & 1889 The Castellated and Domestic Architecture of Scotland, vols I & III. Edinburgh.

Mackie, J 1978 A History of Scotland. 2nd edn. London.

Nicholson, R 1974 Scotland: the later Middle Ages. Edinburgh.

OS 1975 Ordnance Survey: Geological Survey of Great Britain (Scotland) (Scale 1:50,000), Map sheet 62E, Drift & Solid Editions.

Samson, R 1982 'Finds from Urquhart Castle in the National Museums, Edinburgh', *Proc Soc Antiq Scot*, 112 (1982), 465–76.

Stevenson, J 1870 Documents Illustrative of the history of Scotland from the death of Alexander III to the accession of Robert the Bruce 1286-1306, II. Edinburgh.

Tabraham, C & Grove, D 1995 Fortress Scotland and the Jacobites. London.

Toy, S 1966 The Castles of Great Britain. London.

Wyntoun The Original Chronicle of Andrew of Wyntoun, ed Amours, J. 1902-14. Edinburgh,

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