

Dunstaffnage Castle, Argyll & Bute: excavations in the north tower and east range, 1987–94

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ABSTRACT

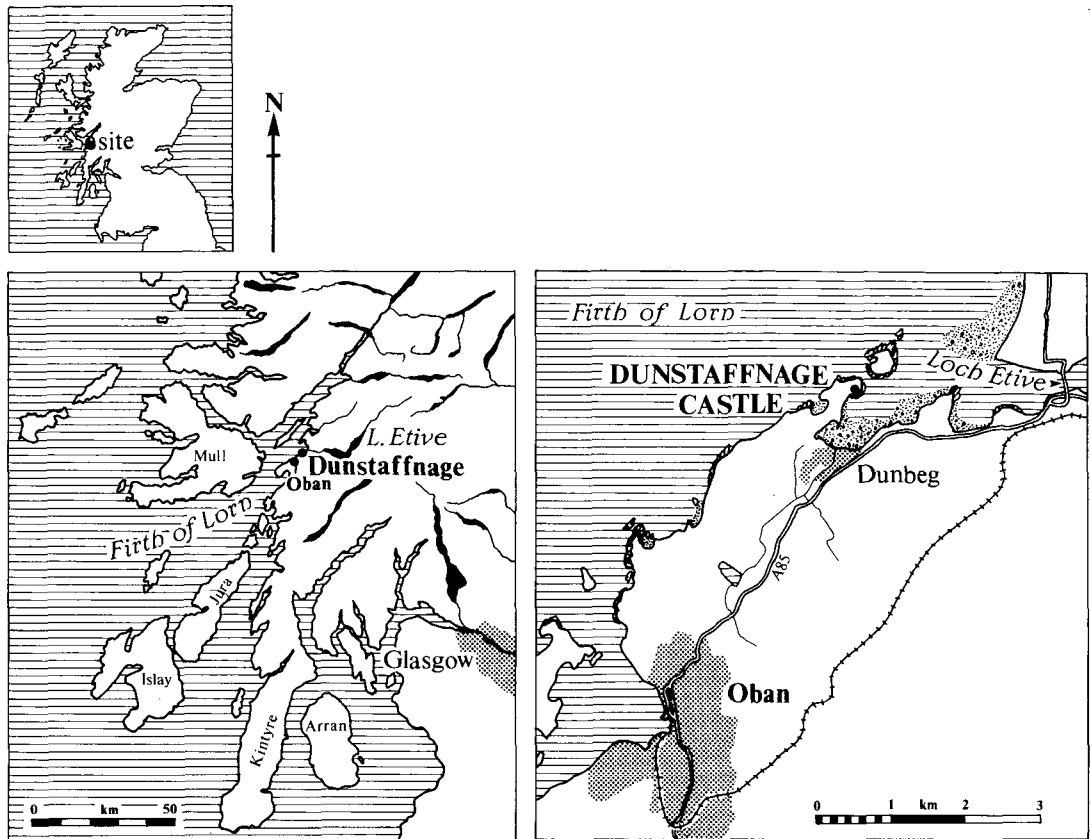
Excavations, financed by Historic Scotland, were carried out between 1987 and 1994 within the north tower (probably the donjon) and the east range (probably containing the hall) of 13th-century Dunstaffnage Castle, Argyll & Bute. In the north tower, below 3.5 m of debris, were traces of an early curtain wall predating the tower. At ground level, two window embrasures were revealed in the east wall of the building and, on its south side, a doorway into a passage linking with the east range. In the late 17th or early 18th century the passage was blocked and a fireplace inserted into the north gable of the east range which was occupied at least until the late 18th century.

INTRODUCTION

The impressive, if somewhat forbidding Dunstaffnage Castle (NMR: NM 882 344) lies 5 km (3 miles) north-east of Oban and just north of the village of Dunbeg on the coast of Argyll & Bute (illus 1). It stands on an outcrop of conglomerate rock of Old Red Sandstone age, 6–9 m high, at the east end of a small peninsula which juts out from the southern shore of Loch Etive, near its mouth. The rock overhangs on its north side where it has been undercut by a sea which has now receded somewhat. Although the prospect inland could be deemed an adequate one, the castle's real strength lay in the commanding view it had across the Firth of Lorn, the Sound of Mull and the approach to the Great Glen (illus 2). This stretch of heavily indented coastline was a very busy and a strategically important one during the medieval period, when maritime transport was usually the most effective way of covering long distances. There was secure anchorage in Dunstaffnage Bay, to the south-east of the castle, which continues to provide a safe haven for craft, now mainly pleasure boats. The castle occupies the whole of the rock outcrop and although the surface of the rock rises somewhat towards the north and west, it was level enough to build the castle upon it.

It is generally accepted that Dunstaffnage was built during the mid-13th century as a stronghold of the MacDougalls of Lorn, perhaps on the instigation of King Alexander II or his son, Alexander III (RCAHMS 1975, 198; Millar 1963, 53). Some authorities are less precise about its dating, preferring a less closely defined date in the 13th century (Cruden 1960, 39). For most of its days, Dunstaffnage was held by the Campbells. Its defence and maintenance were primarily the responsibility of

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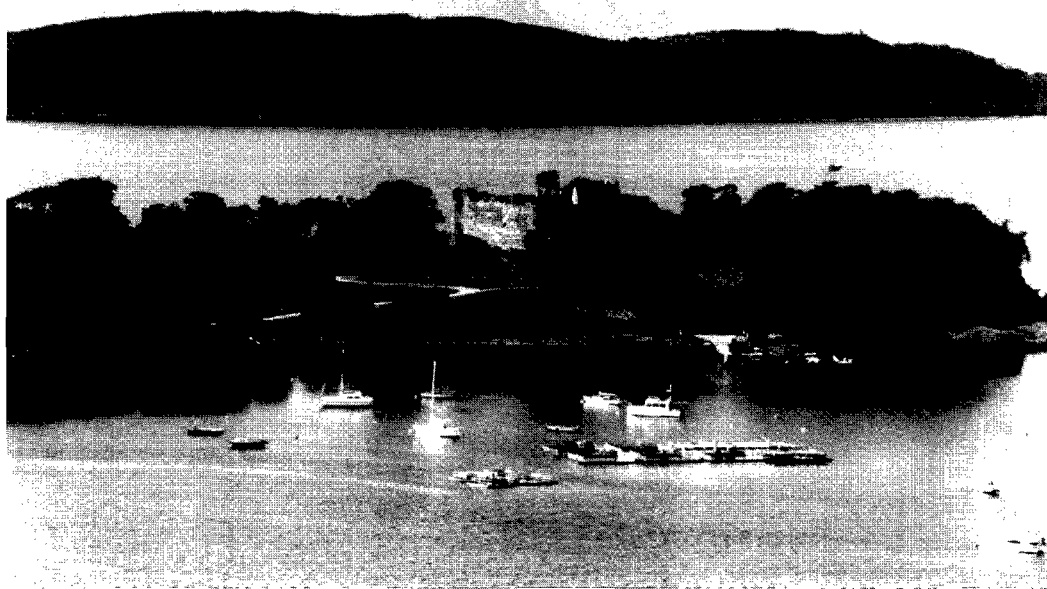


ILLUS 1 Location of Dunstaffnage Castle. (Based on the Ordnance Survey map © Crown Copyright)

hereditary captains, this practice continuing well into the 20th century. Since 1962 the castle, except the gatehouse tower which is retained by the Captain, has been in state care, the responsibility for its maintenance and upkeep resting with Historic Scotland.

Detailed descriptions of the castle's history and architecture can be found elsewhere (MacPhail 1920; RCAHMS 1975; Simpson 1958) and these sources should be consulted for fuller accounts than those outlined here.

This castle of enclosure comprises an irregular quadrangle (illus 4), measuring approximately 35 m by 30 m, with towers at its west, north and south-east angles linked by a massive curtain wall which still stands to parapet level along most of its length. The entrance into the castle is through the south-east tower which appears originally to have had a curved outer face projecting slightly from the curtain wall in a manner similar to the north and west towers. At a later date (probably in the late 15th century) the gatehouse was pushed farther outwards to form the arrangement that survives to this day. It is purported that the entrance was reached by a drawbridge (whose mechanism is not understood fully), spanning the gap between the entrance doorway and a forestar, which was rebuilt between 1850 and 1863 (Simpson 1958, 23). There have been several modifications to the gatehouse, including the addition of more floors during the 16th century and the division of the transe into a narrow passage and a cellar during the 17th century (RCAHMS 1975, 202). Both Simpson (1958, 78) and Cruden (1960, 41) describe the west tower as the donjon, although this was



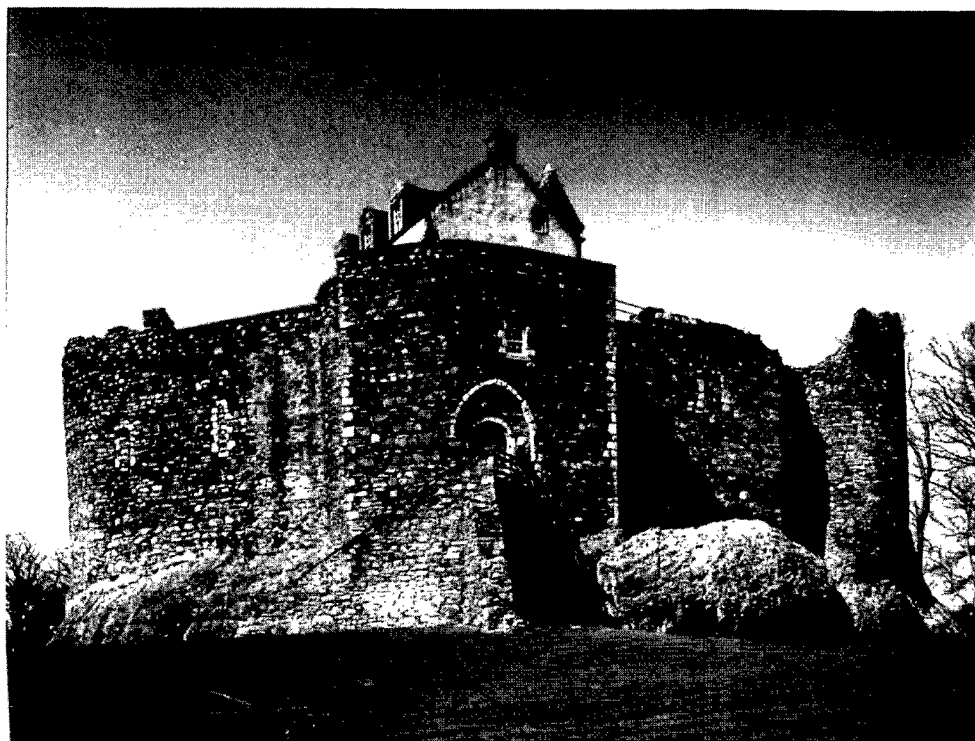
ILLUS 2 The castle in its setting, showing the Firth of Lorn and the mouth of Loch Etive behind

more likely the function of the much larger north tower; the former simply supplying rather cramped accommodation on four floors, including what may have been a basement prison. Ranges of two-storey buildings had stood against the east and north-west curtain walls. The overall plan of the east range, in which there may have been a hall at first-floor level, does not seem to have been altered greatly at any stage. However, the north-west range appears to have been completely redesigned, probably in the late 16th century, and its upper storey rebuilt again in 1725 (RCAHMS 1975, 206). There is nothing to indicate that there had been any buildings against the south-east or south-west curtains during the 13th century although there is some evidence to suggest that a small building had stood in the angle of those two walls at a later date, perhaps during the 17th century. At the same time the arrow slits contained within the embrasures in both walls were adapted for use as gun loops.

The castle's rather formidable and austere appearance can be attributed to not only its situation but also the composition of its fabric, mainly dark grey blocks of schist and split boulders of igneous rock, occasionally brought to course. Some slight relief is provided by the door and window rybats and most of the quoins which are mostly of pale brown sandstone, thought to be from the Ardtornish area of Morvern (RCAHMS 1975, 199).

THE EXCAVATIONS

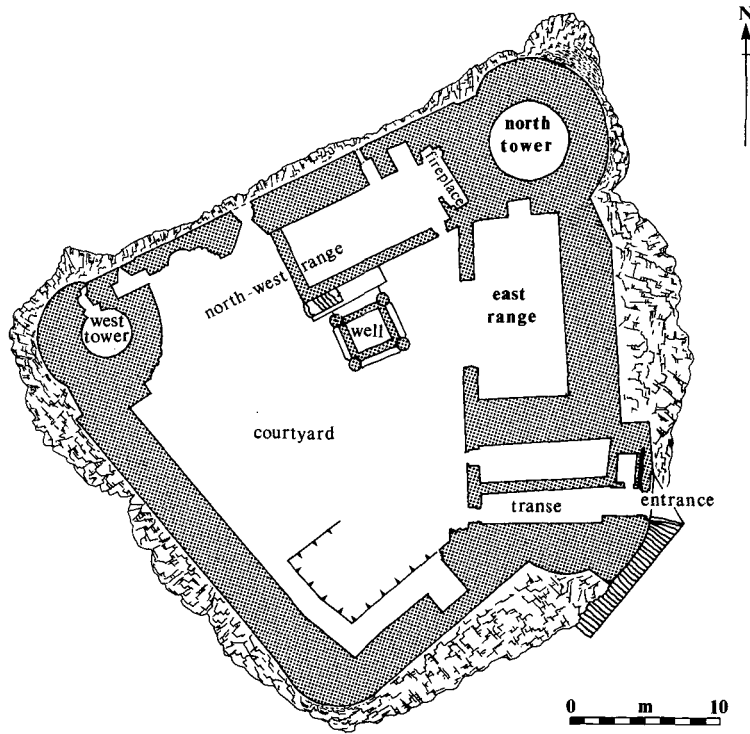
Since 1962 Historic Scotland and its predecessors have undertaken an extensive programme of consolidation of the masonry of most of the castle buildings and the removal of debris from many of



ILLUS 3 The castle and its entrance, viewed from the east

them. Clearance work had stopped short of the north tower and the east range although the masonry of the former had been consolidated prior to this date. In 1987 the decision was made to excavate the interior of the north tower which at that time was not accessible to the public. It was not clear then how visitors would be conducted into the tower, there being no doorway into the building: the excavators gained entry to it over scaffolding erected against the north wall of the east range. Approximately 3.5 m of deposits were removed from the interior of the tower, much of it having been deposited during the 19th century. Disposal of this material was by means of a sectional chute, positioned against the north face of the tower where there was a breach in its wall.

This stage of the project was completed in 1988. In 1989 the investigation was extended into the east range where recently deposited materials were removed from the north half of the building; as was the fireplace in the north gable. A small *sondage* was also opened adjacent to the fireplace. In the summer of 1991 a larger trench was excavated within the north end of the east range and the passage that led to the north tower was cleared of debris. In addition, modern deposits were excavated from the south chamber of the east range. Later in the year the 20th-century stonework that overlay the medieval stair at the south end of the east range was removed. Finally, the brief investigation of a ruined staircase within the west wall of the north tower, begun in 1988, was completed in 1994.



ILLUS 4 Plan of Dunstaffnage Castle

There was evidence of four principal phases of construction or occupation within the area of excavation:

Period 1 The Early Bronze Age

Period 2 The construction of the first castle enclosure (perhaps early 13th century)

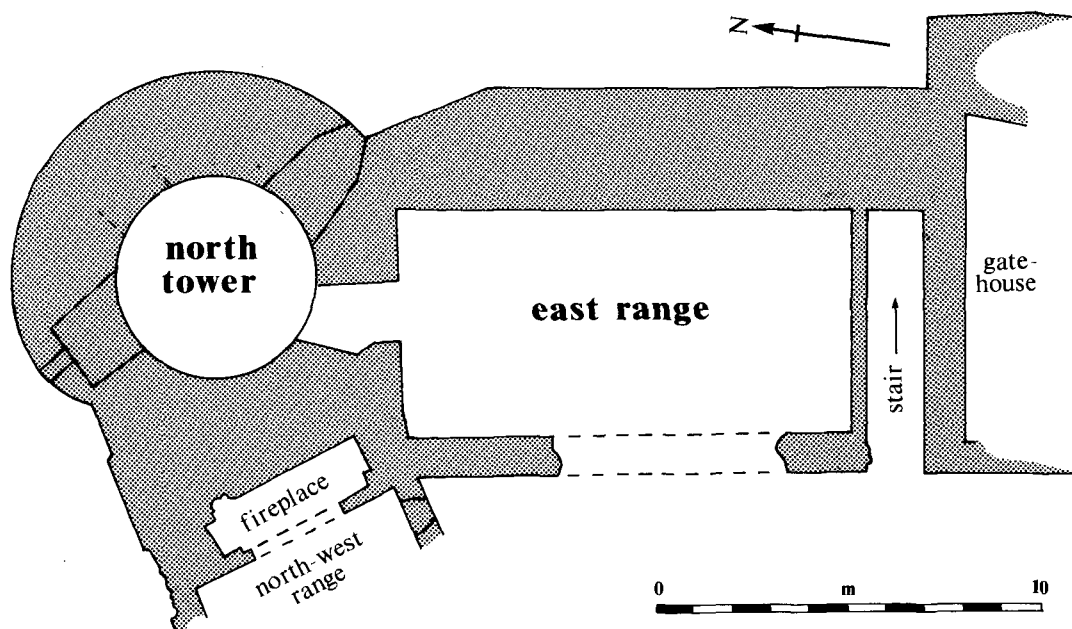
Period 3 The main phase of building and remodelling, including the construction of the north tower and the east range (probably mid- to late 13th century); and the subsequent part demolition and reconstruction of the north tower

Period 4 The abandonment of the north tower and the remodelling of the east range (?17th–18th century)

PERIOD 1: THE EARLY BRONZE AGE

The evidence for prehistoric occupation is minimal, consisting only of one sherd of pottery recovered from the infill of the north tower. This sherd was from the body of a large vase-type food vessel, dated to the early second millennium BC (see below). Although no further evidence of occupation contemporary with that pottery was uncovered during the excavation, it is quite possible that such evidence was lost during the extensive programme of ground clearance that would have preceded the construction of the castle. Furthermore, it is unlikely that artefacts would have been transported onto the castle rock other than intentionally.

The earliest deposit uncovered – predating the earliest phase of castle building – was 0.5 m of grey-black, silty soil with a high concentration of gravel and pebbles and containing a few animal bones. This is thought to be a buried topsoil, the stones being erosion products from the bedrock.



ILLUS 5 Schematic plan of the north tower and the east range

PERIOD 2: THE FIRST CASTLE ENCLOSURE (ILLUS 6)

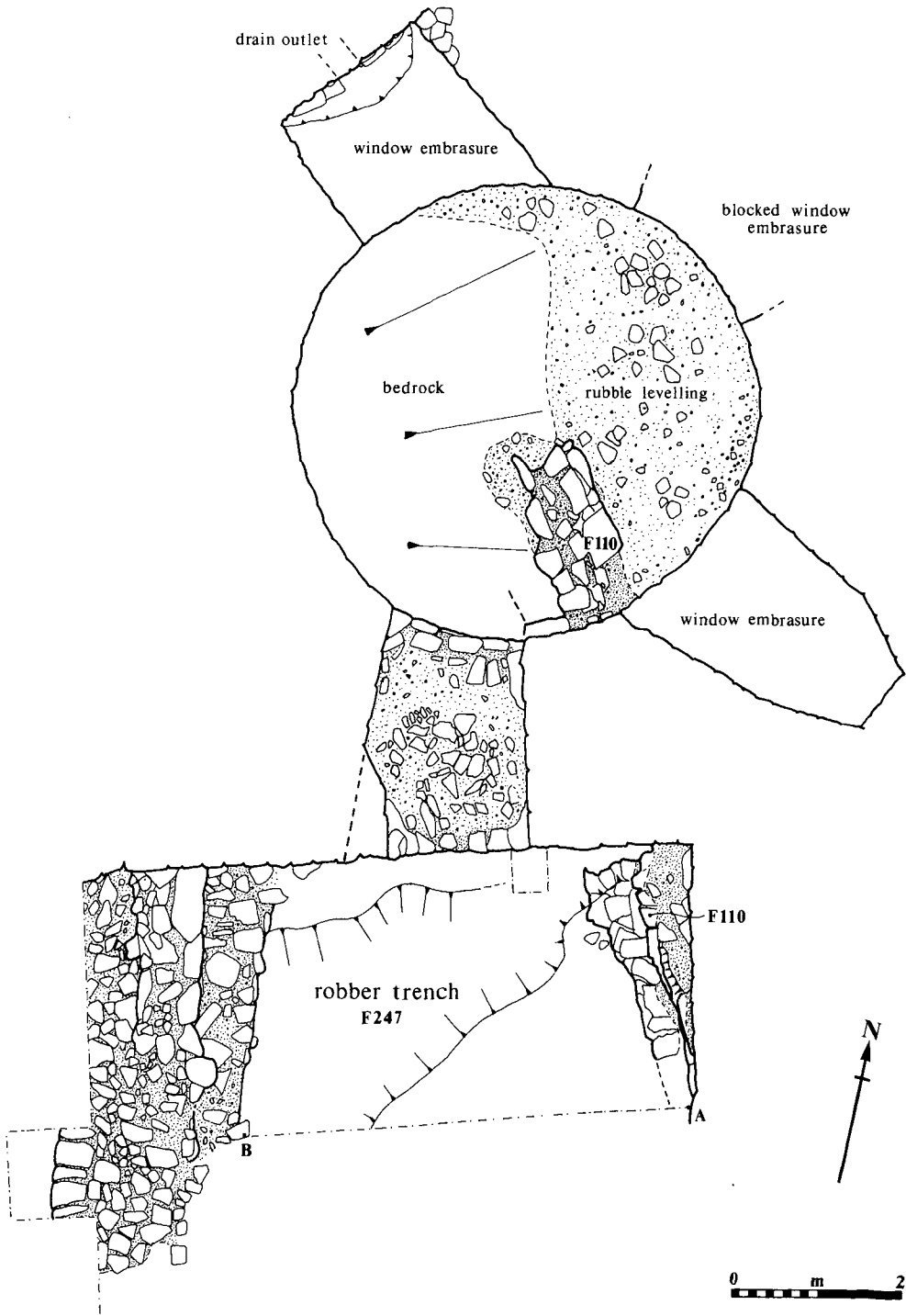
Excavation demonstrated that what had been perceived as the original plan of the castle was a secondary arrangement. It is evident now that both the north tower and the east range belonged to later phases of castle building; the interval between some of those phases of development, however, may have been quite short. Originally the curtain wall ran along the east side of the castle rock, veering towards the west, at an angle of about 15°, where the bedrock falls sharply away to the east and where the north tower was to stand. A short stretch of this wall (F110), surviving as one to two courses of clay-bonded, flat, schistose rubble, was uncovered below floor level in the north tower at its south end. The east face of this wall was still in evidence whereas its west edge was missing and it is not clear how wide the wall had been, only 1 m of its width surviving. More substantial, mortar-bonded remains of this wall were uncovered in the north-east corner of the east range, protruding below the inside face of the building's east wall and extending under its north gable.

PERIOD 3: THE MAIN PHASE OF BUILDING AND REMODELLING

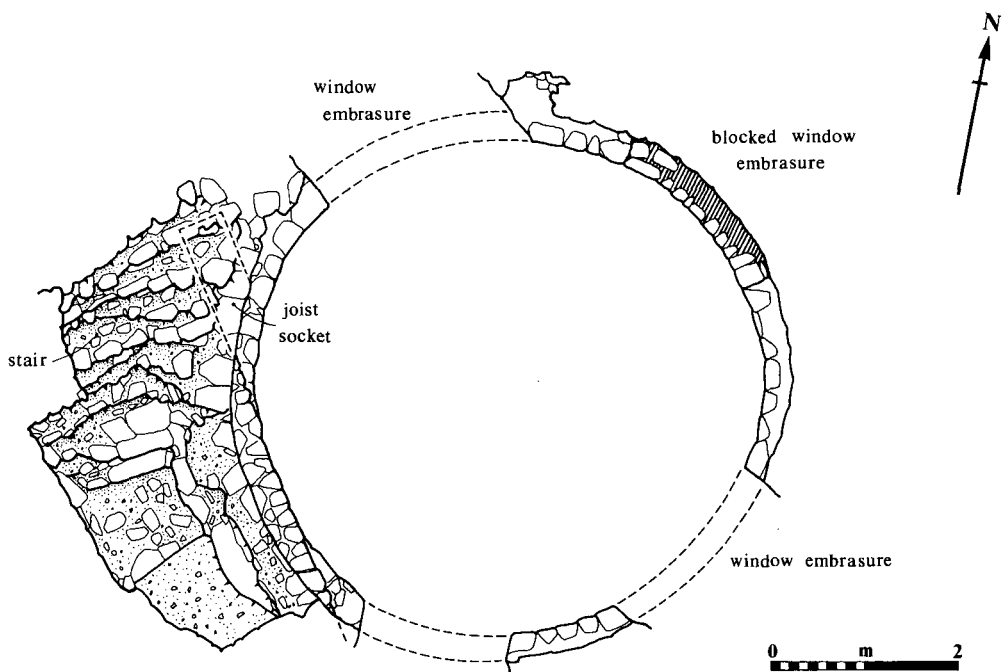
This stage saw the demolition of part of the east curtain wall and the construction of the north tower over its foundations. It is not certain whether this first phase of remodelling (Period 3a) was restricted to the north-east corner of the castle or if other alterations were included in this design, although there are a few clues to suggest the latter was the case. At some stage the north tower appears to have been almost totally demolished, to be rebuilt later (Period 3b).

The north tower (illus 6–9)

Period 3a At ground-floor level this massive, circular tower measured 5.4 m in diameter internally, within walls 2.5 m thick. The outer face of the wall was squared off on its south and south-west



ILLUS 6 The ground floor of the north tower and north end of the east range showing the principal Period 2 and Period 3 features



ILLUS 7 The Period 3 features surviving at first-floor level in the north tower

sides where the tower abuts the east and north-west ranges. The tower was built directly on bedrock (which sloped down towards the east), beyond the line of the primary curtain wall. There the tower was supported on a plinth of masonry and the sloping ground on the east side of its interior was levelled up with compact mortared rubble. Overlying this rubble and the bedrock, which covered the remainder of the tower's interior, was a deposit of grey clay, gravel and small stones taken from the nearby shores of Dunstaffnage Bay. It is not clear whether the clay itself constituted the floor of the tower or whether stone flags or other flooring materials had been set upon it: no trace of such materials was located during the excavation.

At ground-floor level the tower's walls were pierced by window embrasures on its north-west, north-east and south-west sides. On the inside of the tower the north-east and south-east openings were 1.4 m and 1.9 m wide respectively; both were 1.9 m high and set about 0.5 m above the presumed floor level. The external openings of the north-east and south-east windows are not now visible from the outside of the tower because much of its exterior has been refaced on at least one occasion. The north-east embrasure had been blocked up with mortared masonry, laid flush with the internal face of the tower. It may have been sealed at an early date as a safety measure: the proximity of three wide embrasures might have been considered structurally unsound. The embrasure on the north-west side of the tower was 2.0 m wide and floored with grey clay and gravel similar to, and perhaps contemporary with, the clay that lined the base of the tower. The outer skin of the wall had been destroyed and rebuilt probably at least twice; the last time within recent years when a small aperture piercing the outer face of the wall was inserted to take away surface water from the tower and therefore minimize damage to its stonework.

There was no evidence that the first storey of the tower could have been accessed directly from



ILLUS 8 The inside face of the north tower, showing the blocked north-east and south-east embrasures. The foundations of the early curtain wall (F110) are in the foreground. Viewed from the north

ground level. Although there may have been a trap door at first-floor level, it is more likely that the tower's ground-floor apartment was entered only from the east range – or the castle courtyard, if the east range was yet to be built. The passage between these two buildings was 1.75 m high and 1.60 m wide at the opening into the tower where there was a drop of about 0.35 m. On the evidence of a check on one of its jambs, the door had opened into the tower. The passage had widened somewhat where it opened into the east range; although this opening had been reduced again when a fireplace was inserted into the north gable of the east range during the 18th century (see below). The eccentric angle between the two buildings was echoed by those of the north-west and south-east window embrasures in the north tower. The lowest jambstone(s) on each side of the south end of the passage were *in situ* below the level of the 18th-century fireplace, the outer face of each stone having a narrow chamfer. The walls of the passage were lined with mortared rubble which originally may have been plastered. Its floor, too, was of mortared rubble which showed no signs of wear, suggesting that there had been flags over this material. There were no lintels remaining in the roof of the passage.

The first floor of the tower appears to have been supported on massive timber beams set into its east and west walls: the only surviving evidence of the floor was a beam slot, 0.50 m wide and 0.25 m high, along the west side of the tower and extending 1.1 m into its north wall. At some stage the tower appears to have been demolished to the level of the first floor or lower; on the east side of the tower the stonework was dismantled beyond the levels of the (probably timber) lintels of the north-east and south-east window embrasures whereas the masonry survived a little higher on the

west side of the building, just above the beam slot. Alternatively, the evidence of subsequent rebuilding may simply reflect two separate campaigns of construction, although this is thought unlikely because there was a definite period of abandonment between these two events (see below).

Following the temporary abandonment of the tower and the removal of any formal floor surface it may have had, its ground floor was infilled with midden materials, rubble and other debris; this extended into the south-east window embrasure and the passage leading to the east range. Immediately above the clay and gravel at the base of the tower were fragments of burnt timber with attached nails, perhaps the remnants of one of the tower's floors. Collectively, the deposits in the lower part of the tower were 1.0-1.5 m deep. In the main they comprised rubble and mortar (at least some of which was probably collapsed masonry from the building); various burnt materials; and humic soils containing butchered animal bones, shells of edible marine molluscs and artefacts of 14th- and 15th-century dates. Of particular interest were two carved stones, interpreted as elements of a font; one was retrieved from the ground-floor chamber, the other from the south-east embrasure. Also within this debris were several nodules of iron, each measuring about 100-150 mm across and interpreted as iron blooms that had been rejected prior to refining and used instead as wall core (M Spearman, pers comm). There was no obvious pattern to the deposition of these materials.

Period 3b Although it would seem that its ground floor remained out of use, the tower was rebuilt to accommodate at least two (and probably three) more storeys. Its uppermost level is now almost completely ruinous, as is the whole of its north-west side. The only window still opening onto the west side of the tower is at second floor level on the north-east side. With the removal of the lintels over the south-east window embrasure, it would have been necessary to ensure the new stonework did not collapse. To achieve this, the embrasure was infilled with drystone rubble laid directly on the looser rubble and soils deposited after the partial demolition of the tower. Subsequently, some of this rubble blocking was to subside, causing a break in the overlying masonry. Following the completion of the excavation within the north tower, the materials within the embrasure were removed and its roof lined with concrete: a proper investigation of the embrasure and its infilling deposits was not possible as the work was undertaken without archaeological supervision. However, the clearance work did reveal the narrow slit which pierced the outer face of the tower wall. At some stage this opening had been sealed with masonry and bricks, evidently from the outside. The means by which the original first floor was supported had been swept away when the tower was near-demolished. Its replacement seems to have been supported on beams set onto a scarcement, 0.25 m-wide, which encircles the interior of the tower, about 0.5 m below the level of the Period 3a beam slot in the west wall.

Within the thickness of the west wall were the remnants of a mural stair that rose in a clockwise direction from first-floor level to the upper floor (or floors) of the tower. The two large flags which appear to have sat at the base of the stair were missing, whereas the next three steps survived as badly eroded blocks of sandstone, each about 0.2 m thick. Above this level only the mortared rubble foundations of the stair remained. The overall surviving length of the stair was 2.5 m, over which it rose to a height of about 2 m. It is not clear whether this stair was a surviving element of the Period 3a arrangement or if it originated in Period 3b. It has been suggested that the first floor of the tower was entered from the north-west range, at the base of the mural stair. There is a possible indication of a blocked doorway in the west wall of the tower, in line with the kitchen fireplace which was inserted into the east gable of the north-west range during the late 16th century. This view may be supported by the two, deep steps at the bottom of the stair; although, alternatively, these could indicate that there had been a niche for a light in the wall nearby.



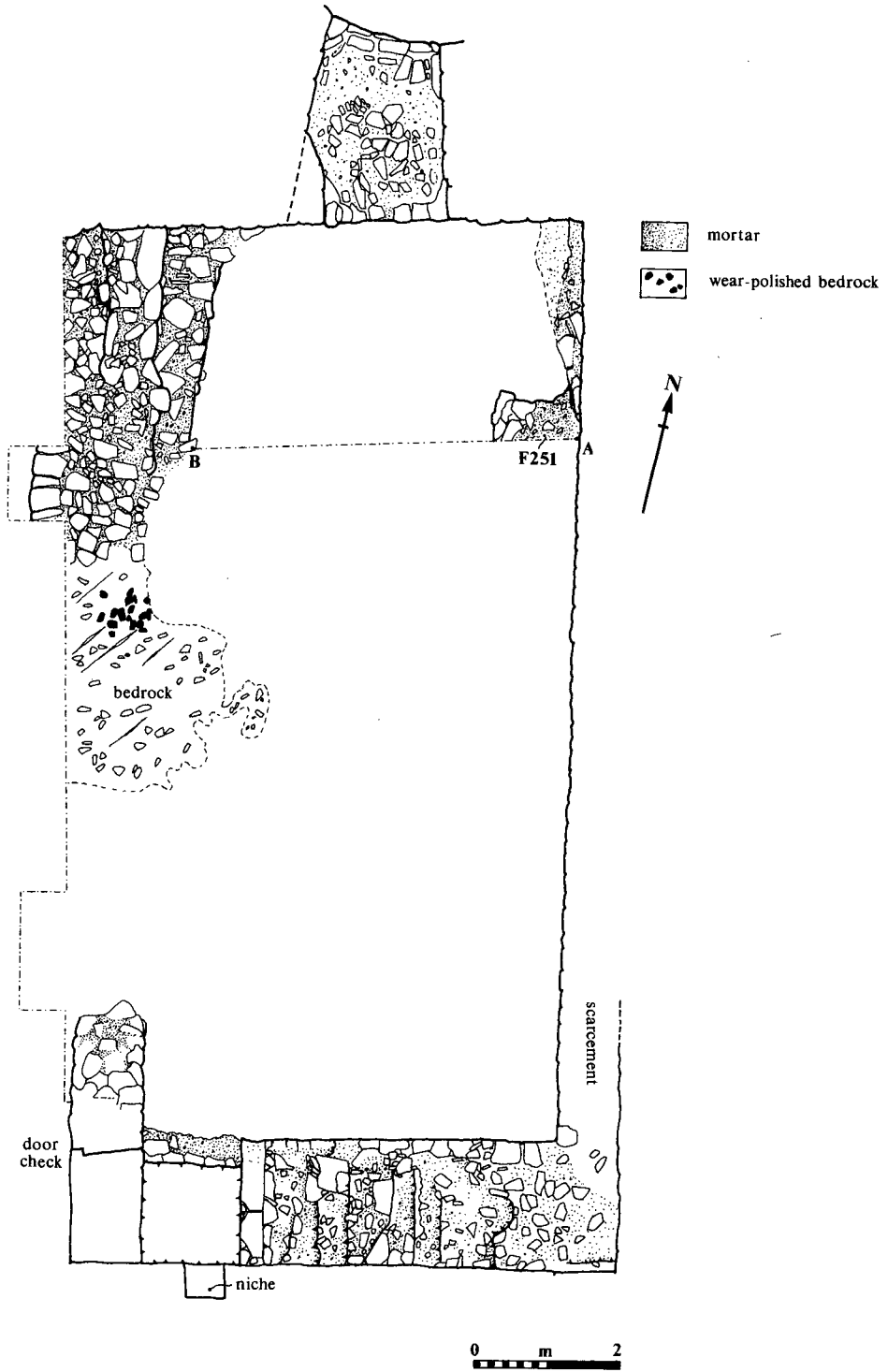
ILLUS 9 The mural stair in the west wall of the north tower, as seen from the south

The east range (illus 6, 10–12)

It is difficult to determine whether the east range is contemporary with the primary phase of the north tower or if its construction only came about when the tower was rebuilt. It has been suggested that the scarcement on the east curtain wall, 0.8 m-wide, may be another indication of the demolition phase apparent in the north tower and described above. As it has not been possible to prove this link, caution dictates that the phases of activity uncovered within the east range should be appraised separately.

The building measures 13.7 m north/south by 5.7 m wide internally. Along most of its length the east curtain wall is more than 3 m thick but it narrows to only 2 m at its junction with the north tower. The description by the RCAHMS (1975, 205) suggests that the outer face of the curtain wall was rebuilt at this point where it had been breached, perhaps in the 18th century. However, it is perhaps more than coincidence that the angled, outer face of this wall shares an alignment with the primary curtain wall revealed by excavation, and it appears that before building work could start on the east range the inner face of the east curtain wall had to be realigned. Very little of the west wall remained. At the south end of the range a section of the wall survived for a length of 2.5 m. It measured 1.1 m wide and about 1.5 m high; above this level the masonry is a recent rebuild. At the north end of the building the wall was very fragmentary: one course of its east face could be discerned over a length of about 2 m although its west face was missing and it was not possible to measure the width of the wall. Its foundations of two courses of mortared rubble, 2 m wide, protruded 0.5 m beyond the east face of the wall.

Another substantial feature that appeared to belong to this phase of the castle was a linear cut (F247) which ran at right angles from the east curtain wall, cutting the putative topsoil that covered the surface of the rock outcrop. This feature was up to 1.5 m wide and 0.8 m deep and was infilled with rubble, mortar and soils containing a few fragments of bone and only one artefact, a sherd of white gritty ware. This pottery probably dates from the 14th century. The south face of cut F247 was near-vertical, indicating that it had been deliberately cut. Its west face, however, was indistinct,



ILLUS 10 Plan of the east range, showing Period 3 features

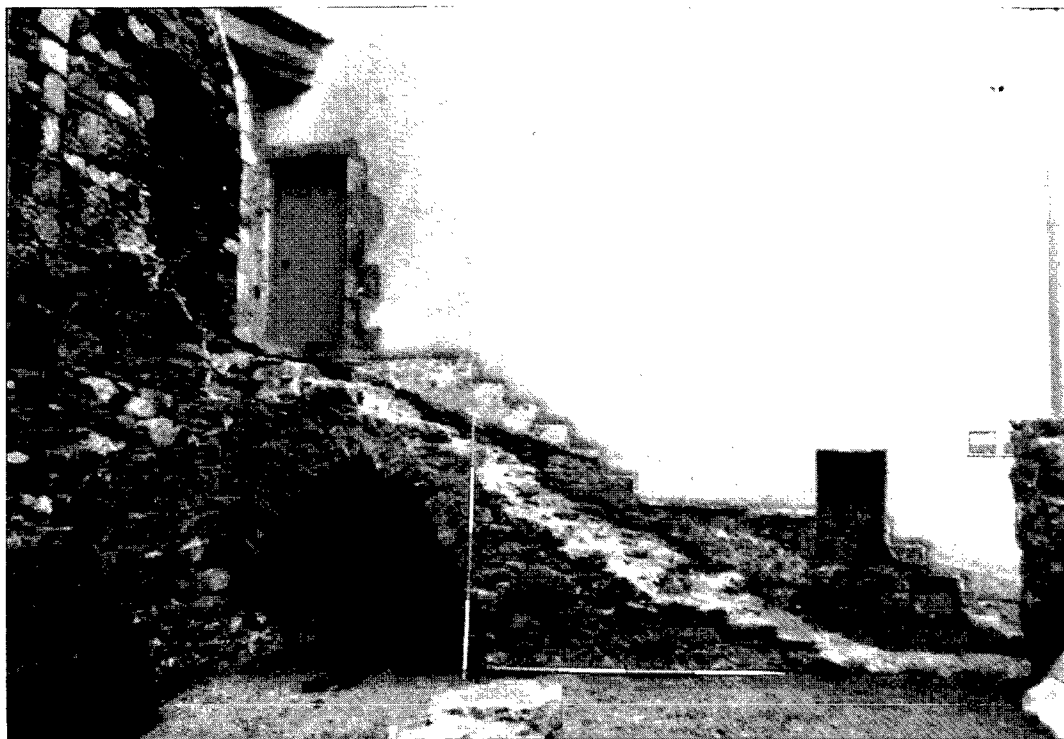
probably because of the disruption caused by the roots of the tree that stood within this area and which is depicted in a photograph dating to the early years of the 20th century (Simpson 1958, pl 11).

It is thought likely that the original access to the first floor of the range, the probable site of a hall, was by an external stair, possibly of timber. At some stage this putative structure was replaced by a stone stair, located at the south end of the range and accessed from the courtyard through a doorway in the west wall. A check on the wall face indicated that the door had opened into the courtyard. On the left side of the stair, which was 1.35 m wide, were the sparse remnants of a narrow retaining wall. It is not known whether this wall had extended up to the ceiling of the ground-floor chamber. The stair also led to the first floor of the adjacent gatehouse, although the doorway leading into that building is probably not the original one. Although the stair was built against the north wall of the gatehouse, its masonry was continuous with the inside face of the east curtain wall which, it can probably be assumed, was at least partially refaced at some point. Only the stair's bottom tread, a sandstone slab 30–45 mm thick, remained: the rest of its treads and risers had been removed, as had the flags from between the stair and the doorway in the south wall. These flags had been bedded onto a layer of substantial, drystone rubble which extended below the foundations of the stair. It also appeared to continue beneath the west wall of the east range and the north wall of the gatehouse: however, the investigation of this part of the range was unfinished and it remains incompletely understood. Although the steps had been removed, their impressions could still be discerned in the heavily mortared rubble upon which they had been set. Near the base of the stairs there is a blocked doorway in the north wall of the gatehouse. The bottom of this opening was at least 0.8 m below the base of the stair, indicating that the two features could not have functioned contemporaneously. If the floor of the east range had been reasonably level over its whole length, there must have been a few steps leading upwards into it from the gatehouse. About 1 m west of the doorway is a niche, 0.6 m wide and 1.0 m high, formed when a splayed opening (perhaps an arrow slit) in the south wall of the range was sealed on its north side. This slit would have looked into the gatehouse or perhaps into open ground prior to the construction of the gatehouse. Below the east end of the stair was a small alcove, 1.25 m wide and 1.7 m deep, its back wall being the north wall of the gatehouse. Its roof was a pointed arch, built mainly of schistose rubble, which reached a maximum height of 1.65 m. The alcove and the adjacent flight of stairs had been sealed by a masonry lining in relatively recent times, probably during the early years of the 20th century when the Duke of Argyll refurbished parts of the castle.

Very few internal features that could be ascribed to the 13th century were uncovered during the excavation, most, if not all, of the excavated occupation levels within the range being of 18th- or 19th-century date. There were clear remnants of several clay floors and associated deposits, although most of them clearly post-dated the insertion of the fireplace in the north wall of the building. Whilst there were also a few smaller patches of clay (probably remnants of a clay floor) which contained no post-medieval artefacts, such evidence is insufficient to attribute a medieval provenance to this material.

About 5 m from the north-west corner of the building, the exposed bedrock, which was very high at that point, was very worn, indicating the probable location of a doorway leading from the courtyard. It is not clear whether this doorway was contemporary with the construction of the range or if it was associated with later alterations to the building. There may also have been a doorway into the ground floor of the east range near the bottom of the stair, thus allowing access between the two floors without having to divert through the courtyard.

Overlying the foundations of the demolished primary curtain wall, 2.5 m from the north-east corner of the building, were the remnants of a masonry feature (F251), built of mortared rubble, which survived to a height of only 0.6 m but whose full width was not exposed. Because of the



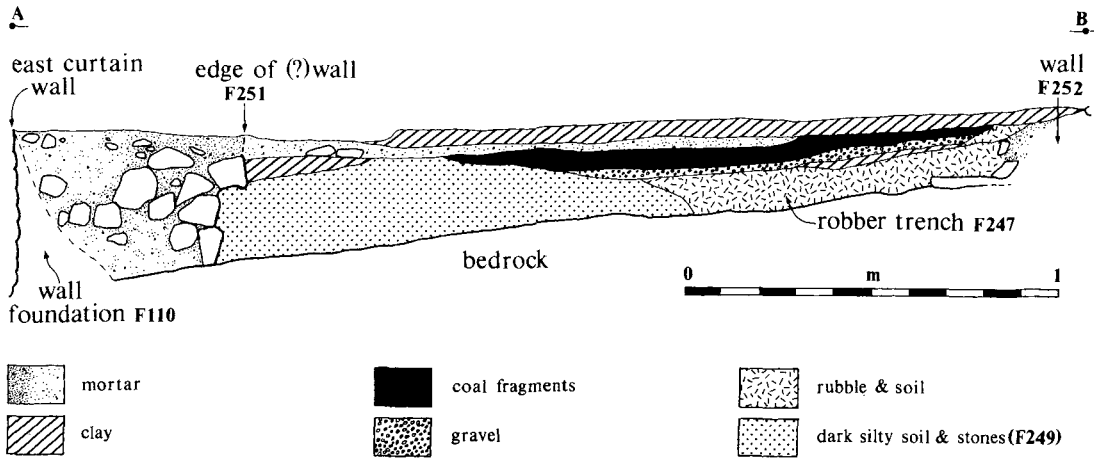
ILLUS 11 The foundations of the stair built over a small, arched recess at the south end of the east range. Viewed from the north-west

limited scope of the excavation, the relationship between this stone feature and buried soil F249 was not resolved. At first sight, masonry F251, which projected 1.1 m into the interior of the building, resembled a truncated cross wall. If it was, then that wall must have been demolished before soil F249 was deposited; on the evidence of its resemblance to an undisturbed buried soil, this is unlikely.

The ground-floor apartments may have been lit by windows in the west wall although there were no openings apparent in the east curtain wall at that level. On the floor above there were two pairs of lancet windows set into wide embrasures in the east curtain wall, the southernmost being near the top of the stair. This latter opening was interpreted as an oratory by Simpson (1958, 82) although there is little evidence to support this. There was another window – a simple slit with an estimated height of 0.6 m and lined with sandstone rybats – towards the north end of the curtain where the wall narrows towards the north tower. It is set somewhat higher than the pairs of lancet windows but not high enough to have belonged to a second storey. The window has been blocked with small pinnings on the outside but it is not now visible on the inside face of the curtain. As at courtyard level, there may have been a doorway in the north gable leading to the tower beyond although, again, this means of communication would not have survived the remodelling of the gable in the late 17th or early 18th century.

PERIOD 4: LATER DEVELOPMENTS

Large-scale alterations were undertaken between the late 15th and the 17th centuries, in particular, the rebuilding of the north-west range and the extension upwards and outwards of the gatehouse.



ILLUS 12 Section through the remnants of floors and associated levelling deposits in the north chamber of the east range

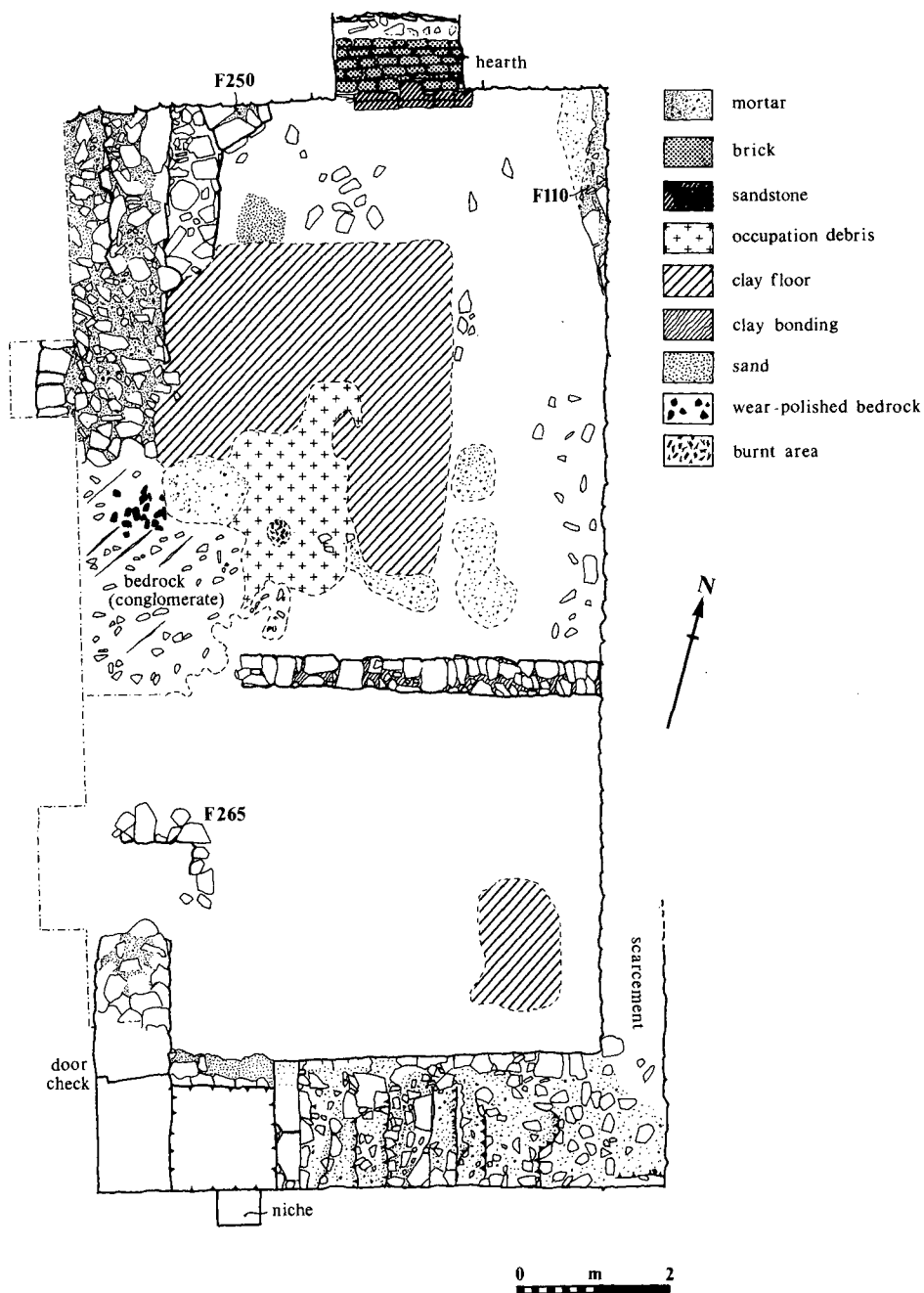
Doubtless other changes, many of them perhaps quite small in scale, were carried out in other parts of the castle, including the north tower and the east range. However, in the late 17th or early 18th century there was an important change to the east range when a fireplace was inserted in its north gable.

The north tower

The ground floor of the tower was abandoned some time before the fireplace was inserted in the north gable of the east range. By 1706 many of the castle buildings, including the north tower, were complete ruins, even following the Duke of Argyll's restoration work in 1689, four years after the Marquis of Athole had the castle put to the torch (Simpson 1958, 50). Overlying the rubble and midden materials dumped in the north tower before it was rebuilt were similar deposits of refuse which contained artefacts ranging from the late medieval period to the 19th century. Most of this debris was probably deposited by the occupants of the adjacent east and north-west ranges between the 18th and late 19th centuries, by which time the tower had been totally abandoned and its floors removed.

The east range (illus 12–14)

There was nothing to suggest that the primary ground plan of the east range was changed significantly; although doubtless numerous repairs and modifications would have been carried out to its fabric and fittings. A surviving modification was the insertion of a fireplace into the north gable of the building. The ground-floor passage that had led to the north tower was sealed up at its south end with masonry set against some of the rubble and midden deposits which continued into the tower. Its width was reduced somewhat on its west side to accommodate the fireplace. The jambs of the fireplace comprised quirked and keeled roll mouldings, four to five courses (up to 1.5 m) of which survived. These were evidently reused stones, perhaps from a demolished structure elsewhere in the castle or, more likely, from Dunstaffnage Chapel, built about the same time as the castle and located 150 m west-south-west of it (RCAHMS 1975, 124). The sandstone rubble sides of the fireplace may also have comprised reused stones. Measuring 1.6 m wide and 0.85 m deep, the hearth was floored



ILLUS 13 Plan of the Period 4 east range



ILLUS 14 The north end of the east range, viewed from the east, prior to the removal of the uppermost clay floor

with bricks which once extended up the back of the fireplace, although most of that lining had disappeared, exposing the mortared rubble behind. Each of the bricks measured 235 mm by 115 mm (9½ in by 4½ in) and was bonded with mortar and clay and set on a bed of mortar over a levelling deposit of sand and soil. Projecting slightly into the room, the front of the hearth was built of roll-moulded sandstone bedded in mortar upon large fragments of slate which, in turn, overlay sandstone rubble.

Only in the northernmost 3 m of the east range were floor surfaces and associated deposits investigated in any detail: only modern debris was cleared from the remainder of the building. Within the northern trench there were remnants of several clay floors and numerous other lenses of the same material, some probably originating from earlier floors, others perhaps used to repair worn surfaces. This was particularly evident near the fireplace where there were also several deposits of coal. The clay floors tended to overlie levelling deposits of small rubble and soil, sometimes intermixed with mortar, gravel, sand, ash and other burnt materials. In one of these deposits there were large quantities of charcoal, most of which appeared to be derived from squared timbers, including planks. It was not possible to say whether this material was the result of a conflagration within the range or whether it was simply demolished timber used as fuel. Perhaps the presence of a small amount of roundwood nearby indicates the latter. The overall depth of these materials was about 0.6 m. Some of the lenses of burning may have been occupation debris, although these materials could not be distinguished easily from some of the levelling deposits. There was no evidence of any floor surfaces, other than of clay, within the range.

Protruding from below the apparently relined face of the north wall of the building was the

stump of a wall (F250) which overlay some of the foundation stones of the west wall of the range. It also overlay floor and sub-floor deposits of probable post-medieval age within the north chamber of the east range and hence is included within this phase of the castle's development. It was not possible to investigate this structure further and its date and function remain unresolved.

At some stage the ground floor was divided into two apartments by the insertion of a cross wall. Further excavation would be necessary before this wall could be dated and its relationship with the various floor surfaces within the building resolved. The wall was definitely not an element of the primary 18th-century arrangement although its construction clearly predated at least one of the clay floors within it. It divided the range into two rooms of unequal size, the north and south chambers measuring 7.4 m and 5.0 m wide (north/south) respectively. The wall, which was only 0.4 m wide and built of clay-bonded rubble, survived to a maximum height of three courses. It stopped 1 m short of the west wall of the building, perhaps where there had been a doorway between the two rooms, although the gap may simply be the result of stone robbing. The bedrock was worn smooth nearby where there had been a doorway into the courtyard: there were no indications as to the date of this entrance which may have continued in use from the 13th century. Entry into the south chamber from the courtyard was through a doorway in the west wall, near its south end. Inside the entrance was what appeared to be a short, dog-legged passage which survived as one course of mortar-bonded, rubble walling (F265) enclosing a spread of mortar, perhaps the threshold.

Alterations at first-floor level included the complete blocking of the northernmost and the contraction of the southernmost of the two window openings in the east wall, the recess being put to a new, unknown use. The stair at the south end of the range was evidently still in use at this time, giving access to the first storeys of the east range and to the gatehouse. If the east range and the north tower had been linked at this level, as they were on the ground floor, then this opening must also have been blocked off when the fireplace was inserted below.

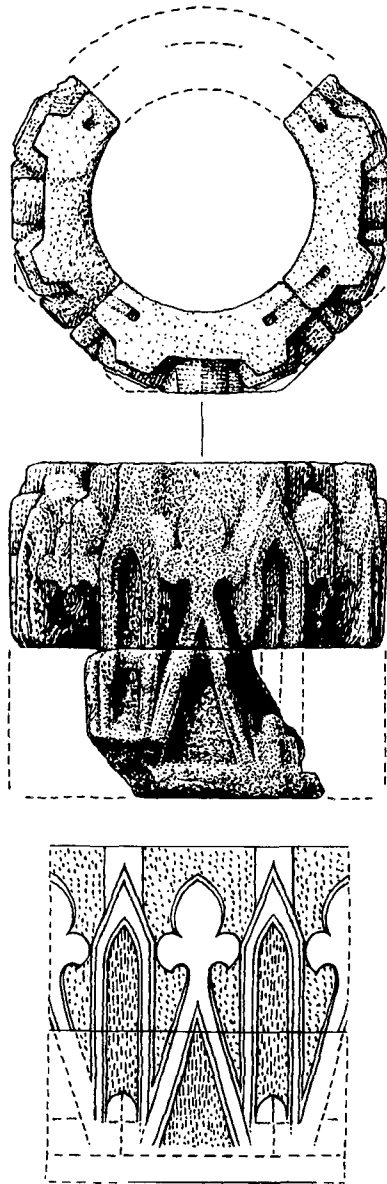
THE FINDS

SCULPTURED STONES (ILLUS 15)

Pamela Graves

Description

Four joining fragments, each a segment of a hollow octagonal shape, were recovered from Dunstaffnage: two were excavated from the north tower of the castle and two were found elsewhere, on the floor of Dunstaffnage Chapel. Together they form elements of two successive courses of what is interpreted as a font. Three of the fragments are approximately 0.37 m high, 0.16 m thick and form a single course. They each have angled cramp sockets and channels retaining lead and iron corrosion products in the upper beds to hold the pieces tightly together. The fourth fragment is about 0.30 m high and 0.10 m thick: it must have come from the course below the other three because the sculptured design continues without a break. The internal face of each fragment has been tooled to a smooth surface and together they describe a circular hollow 0.43 m in diameter. Externally, the fragments are decorated with shallow and blind, lancet-shaped niches within plain, acutely pointed gables, and with simple curved stops at the base of each niche. These are interspersed with simple fleur-de-lis finials to what also appear to have been pointed gables. The only moulded decoration is a plain chamfer to the inner and outer edges of the niches. The decoration is therefore a surface patterning based on architectural motifs.



ILLUS 15 The carved stones retrieved from the north tower and Dunstaffnage Chapel (scale 1:15)

Discussion

The fragments probably form part of a font with a panelled bowl. The size of the curvature of the interior would seem to rule out its use as the stem of a font, but it would be appropriate as a bowl. The water would have been retained within a lead lining. It can be compared with a very simple octagonal font on a square base from Caibeal Mheamhair, Lagan, Mull (RCAHMS 1980, 125, no 261, fig 155). This font has a bowl of diameter 0.35 m, and is described as late medieval. Another, plainer octagonal font, originally from Kilmalieu but now at Inverary, has a bowl of diameter 0.29 m (RCAHMS 1992, 47, no 3, fig A). Again, this has been assigned to the late medieval period. Both of these fonts, however, are devoid of decoration. There are a number of octagonal fonts from Scotland, but most of the panelled, late medieval fonts, like their English Decorated and Perpendicular equivalents, stood on stems (cf Walker 1887). None is decorated in a comparable way to the Dunstaffnage font which seems to have been too large to have been supported by a stem. The Dunstaffnage font seems to owe more to the late medieval monumental sculpture of the West Highlands rather than to the 13th-century decoration of Dunstaffnage chapel itself. Gables surmounted by fleur-de-lis finials and interspersed with upright standards, albeit with cusps and crockets and generally more ornate, can be seen on a number of West Highland graveslabs, including two examples described by RCAHMS (1982, 226–7, no 6, graveslabs 177 and 178) which are late 15th-century and c 1500–60 respectively; and another (RCAHMS 1984, 214) which is thought to be 15th century; and perhaps most impressively one at Ardchattan Priory (RCAHMS 1975, plate 19c). If these stones had appeared in a Lowland context, the decoration would seem to be consistent with the second or third quarter of the 13th century. There are no cusps inside the niches, and no crockets on the gables as would be expected on Lowland sculpture by the late 13th century. However, in a West Highland context, it seems more likely that the sculptural decoration dates to the 14th or 15th century. Given the use of gabled niches and upright standards on late graveslabs, it is even possible that the Dunstaffnage font is a simplified emulation of sepulchral motifs: the iconography of death and birth was linked theologically and liturgically in the late Middle Ages.

Fonts were often elaborately decorated because the sacrament and rite of baptism was the occasion for more than simply the admission of a child into the Christian community (and thus in a medieval context into society *per se*). Through baptism, legitimate scions of noble houses were acknowledged, with repercussions for inheritance of property and rights; and, through the institution of adult godparentage, alliances between houses were created and reinforced. In the context of high status, late medieval society in the West Highlands, the social and political repercussions of godparentage should not be underestimated.

Conclusions

These pieces most probably derive from a font, dating to the late middle ages, probably 14th or 15th century. They are entirely appropriate for a chapel under the direct patronage of a local high status family. The reformed Presbyterianism of Lowland Scotland eschewed stone fonts and insisted instead on the use of simple bowls often attached by a bracket to the pulpit. The break-up of a stone font at Dunstaffnage may, then, date to post-Reformation iconoclasm in this area.

COINS

Nicholas M McQ Holmes

Six coins were recovered from all phases of the excavation.

- 1 Silver penny of Edward I.
North tower: one of the basal infilling deposits.
- 2 Silver penny of Edward I.
North tower: one of the basal infilling deposits.
- 3 Charles I turner, 1632 issue.
East range: uppermost clay floor within north chamber.
- 4 Charles I turner, 1632 issue.
East range: mortar spread (perhaps the remnants of a floor) within north chamber.
- 5 Charles I turner, 1632 issue.
East range: possible occupation debris within the north chamber (perhaps 17th- or 18th-century deposit).
- 6 Charles II turner, 1663 issue.
East range: late 19th-century debris within south chamber.

OTHER SMALL FINDS

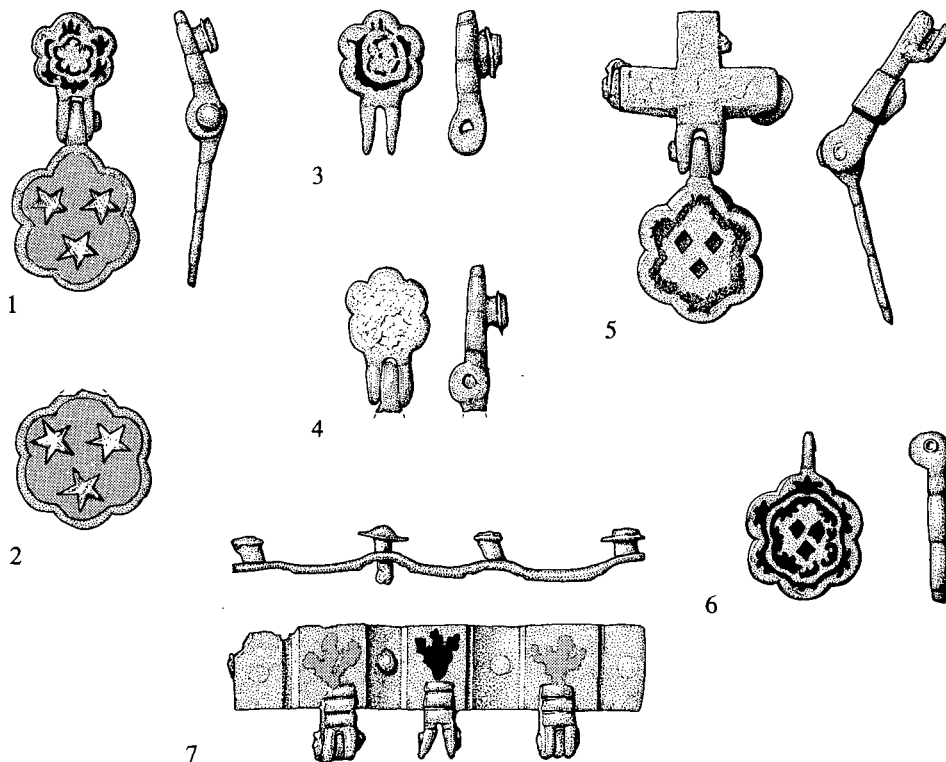
David Caldwell

Prior to analysis the artefacts were briefly examined by the conservation laboratory of the then Scottish Development Department (Historic Buildings and Monuments). All the metal was X-rayed and most was mechanically cleaned and stabilized. Attention was focused particularly on the copper alloy objects. The identification of much of the ironwork relies to a significant extent on the interpretation of X-rays. Of the many iron objects not listed, most appear to be fragments of nails and rivets retrieved from midden deposits within the north range and the passage between it and the east range. These pieces are typical of objects recovered from medieval and post-medieval sites. The iron strips listed as no 41 appear to be evidence for the manufacture of rivets on the site.

The opportunity has also been taken to publish a report on a lead seal matrix found near the castle in 1991.

Copper alloy (illus 16 & 17)

- 1 A decorative mount consisting of two six-lobed plates, hinged together. The smaller one has a stud on its rear, retaining a fragment of copper alloy sheet metal, and a design on its front surface of a six-petalled flower head within a fleury border, all originally picked out in red enamel against a gilt background. The larger plate, also gilt, has a coat of arms, azure, three mullets of five points, argent. The field is formed of translucent blue enamel; the stars are of silver.
North tower: one of the basal midden deposits.
- 2–4 Three pieces of decorative mounts, similar to no 1, consisting of two detached plates with flower head designs, and one larger plate with three silver mullets on a blue enamelled field.
North tower: one of the basal midden deposits.
- 5 A decorative mount, in poor condition, consisting of an hexagonal plate hinged to the broken remains of a cruciform mount. The plate has a coat of arms argent, three cushions lozenge-ways, gules, with a tressure flory-counter, gules. The gules is represented by red enamel.
Passage between north tower and east range: basal midden deposit.
- 6 A decorative mount with red enamel, consisting of a detached hexagonal plate with the same arms as no 5. There are no traces of the silver (argent) presumed to be the colour of the field.
Found during clearance work at the castle.
- 7 A decorative mount consisting of a strip of metal with three raised panels, each with an enamelled design of a three-leaved plant, two of them in blue, flanking a central one in red. A hinge attachment is fixed to



ILLUS 16 Copper alloy objects: decorative mounts (scale 2:3)

the bottom of each of these three panels and on the back there are four studs. Both ends of the mount are roughly finished, apparently as result of having been cut out of a longer piece. Found during clearance work at the castle.

XRF analysis was carried out on nos 1-4 by the National Museums of Scotland prior to conservation. This confirmed the presence of gilding and minor quantities of silver in the mullets. There can be little doubt, however, of the armorial requirement for them to have appeared as argent. The first four of these mounts obviously belong together. Although nos 5 and 6 were retrieved from different locations from nos 1-4 and have different arms, their design and armory suggest that they may belong to the same set.

The arms with the three mullets would, by themselves, be difficult to associate with any one individual. They could either represent the province or earldom of Moray, or perhaps have belonged to someone with Murray as a surname. The design of these mounts suggests a date in the 14th century. The arms with the cushions, however, are distinctive in Scottish armory as those of the Randolph earls of Moray. Mounts 5 and 6 could fit quite readily with the others if they were meant for the earldom of Moray. Assuming the mounts can be grouped together, their ownership would have been confined to one of two men and perhaps their retainers. The first of these men was Thomas Randolph who, as nephew and companion of Robert Bruce, commanded the left wing of the Scottish army at Bannockburn in 1314. Created Earl of Moray in 1312, he met his death in 1332, three weeks before that of his son who, although the second

earl, can be discounted as the owner of the mounts. John, the younger son of Thomas, was the third earl and the second of the possible owners of the mounts. He met his death at the battle of Neville's Cross in 1346.

There are no clues as to why or how these mounts arrived at Dunstaffnage Castle and it is difficult to estimate when they might have been lost. Two Edwardian pennies of the first or second decade of the 14th century as well as pottery which probably dates to the succeeding century were recovered from the same general deposit as some of the mounts.

The mounts are very similar to other armorial pieces of the 14th century which are thought to be horse harness pendants. None of those, however, is known to consist of two hinged plates as are nos 1–4, nor to have studs on their backs. Fragments of charcoal were associated with the copper sheeting round the studs on two of the mounts, suggesting that they were originally attached to a wooden object. They do not seem to be related to those items of regalia mentioned by earlier writers as being housed in the castle (eg Campbell 1885, 96). These included a spur, a stirrup and an axe, all allegedly left at the castle by Robert Bruce after he had captured it from the MacDougalls, although the illustrations do not inspire confidence that there is any truth in that story. Furthermore, these objects cannot be identified from the inventory, drawn up in 1767, of furnishings within the castle (Dunstaffnage Case, 251–3).

Remarkably, the enamelled arms of either the first or the third Randolph earl of Moray are found on another rare survivor from the 14th century, the baldric of the Savernake Horn, now in the British Museum, London. Although the horn, which is carved from an elephant's tusk, is thought to be English work of the 13th century and has long been associated with the wardenship of the Forest of Savernake, the presence of the arms on the baldric must surely indicate an earlier Scottish provenance for this (Caldwell 1982a, 36–7).

Taking into account the silver gilt and enamelled mount of c 1320 in the Bute Mazer (Caldwell 1982, 1982a 37–8) and Barbour's epic poem about the enamelled casket made for Bruce's heart (McDiarmid & Stevenson 1981, 230), it is clear that Bruce's circle could command fine enamelled work for themselves in the early 14th century, possibly from one or more Scottish workshops. The Dunstaffnage mounts are further evidence of this.

- 8 Ring brooch of thin, rectangular section, engraved on the front with a chevron design of alternate plain and line triangles, and on the back with five groups of notches. The pin is cut from sheet metal similar to the brooch; it is looped over the bar on the ring but has an engraved cross design at its neck.
North tower: one of the lower rubble and midden deposits.

A 14th-century date would seem appropriate for this piece. The tradition of making and wearing ring brooches (latterly by women alone) continued in the Highlands and Islands into the 19th century. This example appears to be transitional in style between earlier 13th- and 14th-century ring brooches of a more general European style (some silver examples have been recovered from Scottish coin hoards of Edwardian date) and later Highland-style brooches. It can be compared with another copper alloy brooch with similar chevron design retrieved during recent excavations at Finlaggan on Islay (Caldwell, forthcoming).

- 9 Strap-end (incomplete) with two, long, thin plates, decorated at the end with ribbing.
North tower: one of the lower rubble and midden deposits.
- 10 Plate from a strap-end, similar to but larger than no 7.
North tower: one of the lower rubble and midden deposits.

Strap-ends nos 9 and 10 may be from a matching set.

- 11 Oval shaped ring or link, perhaps a brooch or buckle, lacking its pin.
North tower: one of the lower rubble and midden deposits.
- 12 Rectangular buckle, lacking its pin. A post-medieval type.
East range: 19th- or 20th-century disturbed deposit within south chamber.
- 13 Four pins, one with traces of tinning. Lengths: 30 mm, 28 mm, 27 mm and 20 mm. Not illustrated.
East range: uppermost clay floor in north chamber.
- 14 Two rings and split pins.
North tower: one of the lower rubble and midden deposits.
- 15 Several fragments of cast bronze cooking pots, including a skillet with long handle. Not illustrated.
North tower: rubble and midden deposits throughout the tower.
- 16 Rim sherd of a cast bronze ewer. Not illustrated.
North tower: one of the lower rubble and midden deposits.

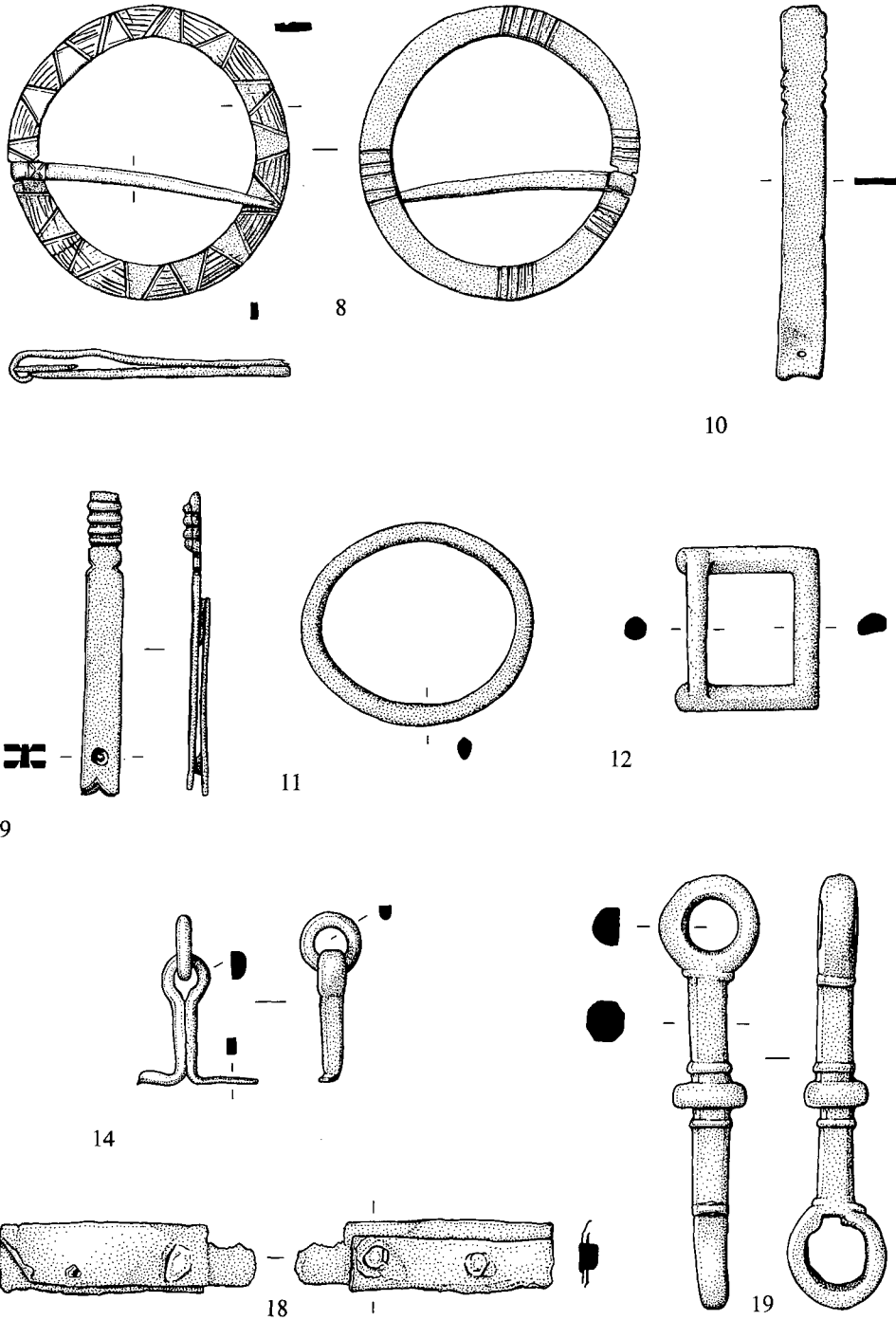
This appears to be from a three-legged ewer with tubular spout and pear-shaped body, a type prevalent throughout the 14th and 15th centuries. The National Museums of Scotland has a collection of over twenty with Scottish provenances.

- 17 Piece of sheet copper. Not illustrated.
North tower: one of the lower rubble and midden deposits.
- 18 Two fragments of sheet copper held together with two rivets.
North tower: one of the lower rubble and midden deposits.
- 19 Rod-shaped implement with central knop and loops at both ends, at right angles to each other. One of the loops has a rectangular recess cut in it.
North tower: one of the lower rubble and midden deposits.

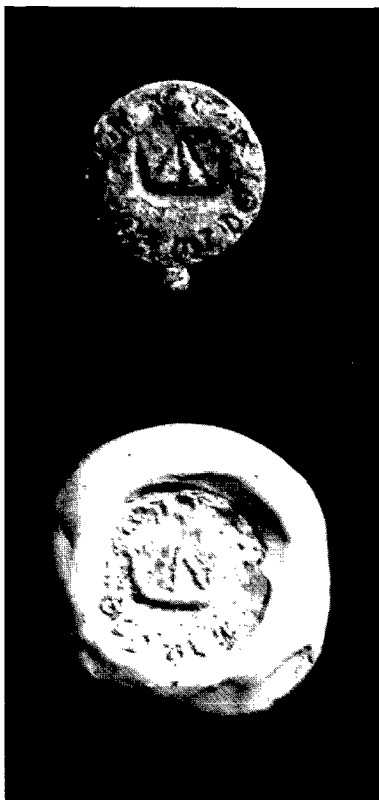
Lead (illus 18)

- 20 Lead seal matrix found on the shore beneath the castle in November 1991 and claimed as treasure trove. It is now in the collections of the National Museums of Scotland.

It has a circular face, 24 mm in diameter, with a simple design of a galley of West Highland type with mast supported by fore and back-stays. The inscription in Lombardic capitals around its circumference can be read as . . .MARI DE IN. . . Its back is crudely incised with a five petalled flower from which the handle rises as a stalk, pierced at the top for suspension. It is now bent out of shape. The letters DE IN. . . signal the designation *De Insulis* (of the Isles) used by members of the chief families of the branches of Clan Donald. A galley, or more correctly a lymphad as it is known armorially, was the device on the coat-of-arms of the MacDonalds. The smallness and crudeness of this matrix may indicate it belonged to a lesser member of the family. It has been suggested that . . .MARI could be the genitive ending of the name Imarus, the latinized form of Gaelic *Imer*, modern Gaelic *Iomher* (in English, Ivor); or else *Molmarus* or *Gilmarus*, latinized forms of *Mael-Moire* and *Gille-Moire*, both meaning 'devotee of the Virgin Mary' (J Bannerman, pers comm). It is not possible to make a positive identification of the owner of the piece; and its exact date must also be in some doubt. The simplicity of its design could allow a date in the 13th century or, perhaps less likely, the 14th century. Certainly by the 14th century it would have been more usual for the galley to be shown upon a shield. A 13th- or 14th-century date is consistent with the style of the lettering.



ILLUS 17 Copper alloy objects (scale 2:3)



ILLUS 18 The lead seal and its impression (actual size)

- 21 Piece of scrap lead sheet, 110 mm by 20 mm. Not illustrated.
North tower: one of the lower rubble and midden deposits.

Iron (illus 19 & 20)

- 22 Padlock, with ribbed, disc shaped body.
North tower: one of the lower rubble and midden deposits.
- 23 Padlock, with rectangular ribbed body, faced with copper alloy plates.
North range: basal rubble and midden deposit.

Although barrel padlocks are the more typical medieval type, this type of padlock, which is not unlike some modern forms, was not unknown. A similar one was recovered from Dunglass Quarry, near Balaggan House, Stirlingshire (NMS MJ 187); and a smaller one, without the ribbing, was recovered from Achanduin Castle, on the nearby island of Lismore. That padlock was dated on stratigraphical grounds to the 13th century (D Turner, pers comm).

- 24 Barrel padlock key.
North tower: one of the upper rubble and midden deposits.

- 25 Part of a hinge.
North tower: one of the lower rubble and midden deposits.
- 26 Rectangular padlock, lacking its hasp. X-rays show it has its key-hole at the bottom left.
North tower: one of the lower rubble and midden deposits.
- 27 Hasp.
North tower: one of the lower rubble and midden deposits.

Similar hasps have been found at Finlaggan on Islay and Achanduin Castle on Lismore as well as other locations throughout Scotland. They served to lock the lids of chests. An example of one still in place on a 15th-century chest is illustrated in Chinnery (1979, fig 2, 121).

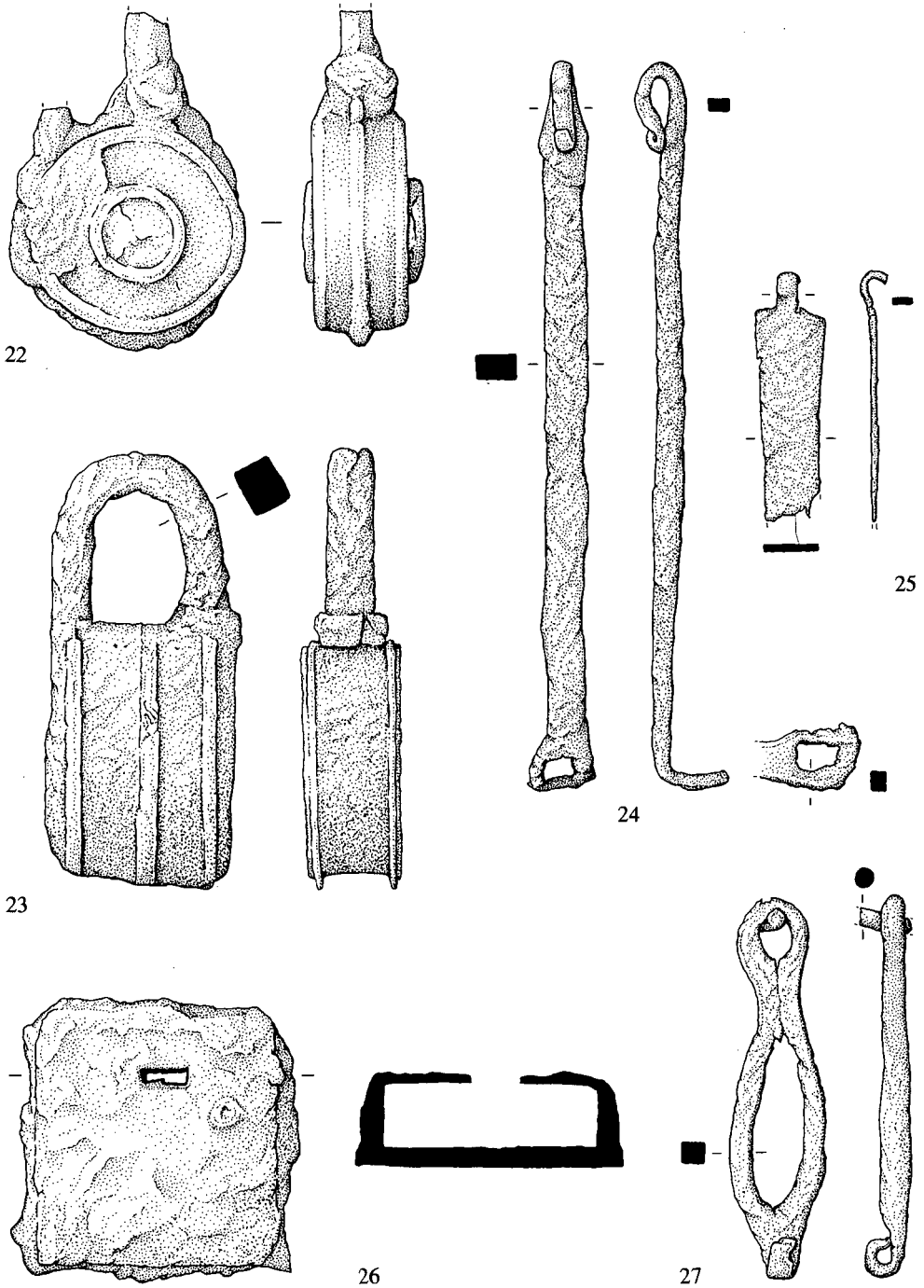
- 28 Rectangular lock, perhaps for a chest, measuring 120 mm by 100 mm. Not illustrated.
Passage between north tower and east range: rubble and midden deposit on the floor of the passage.
- 29 Rectangular lock, perhaps for a chest, measuring 130 mm by 125 mm. Not illustrated.
North tower: one of the lower rubble and midden deposits.
- 30 Small key, probably for a casket. Not illustrated.
North tower: one of the lower rubble and midden deposits.
- 31 Piece of cast iron shot. Diameter 95 mm (3¾). Not illustrated.
East range: 19th- or 20th-century disturbance in south chamber.

Cast-iron shot of this diameter is likely to have been manufactured for use with 16th- or 17th-century muzzle-loading pieces of artillery known in Scotland as culverin bastards (Caldwell 1982b, 60). A late 16th-century bronze gun by A Koster of Amsterdam has long been preserved at the castle. It has a bore of 3¾ in. It is said to be one of the guns from the Spanish Armada wreck in Tobermory Bay, Mull, raised for the 9th Earl of Argyll in 1666 (Hist MSS Comm 1877, 627, no 176).

- 32 Piece of cast-iron shot. Diam 105 mm. Not illustrated.
East range: uppermost clay floor in north chamber.

Cast-iron shot of this size could have been for use with 16th- or 17th-century muzzle-loading guns known as demi-culverins (Caldwell 1982b, 60).

- 33 Piece of sheet iron with pieces of mineralized wood adhering to it.
North tower: one of the lower rubble and midden deposits. Three other similar pieces of iron, retrieved from the same context, perhaps represent the remains of an iron-bound chest.
- 34 Portion of a strap from a door hinge. Not illustrated.
North tower: one of the lower rubble and midden deposits.
- 35 Portion of a strap from a door hinge. Not illustrated.
North tower: one of the lower rubble and midden deposits.
- 36 Hinge pivot, the shank 170 mm long and measuring 55 mm to the top (broken) of the pivot. Not illustrated.
East range: levelling deposit beneath the ?18th-century fireplace in the north gable.
- 37 Barbed arrowhead. This is a type normally used for hunting.
East range: sub-floor levelling material, probably 17th century or later.
- 38 Blade?
North tower: one of the lower rubble and midden deposits.
- 39 Conical, hollow object with enclosed base.
North tower: one of the lower rubble and midden deposits.
- 40 Hook.
East range: fill of robber trench F247.



ILLUS 19 Iron objects (scale 1:2)

- 41 Two strips of pierced iron, apparently unfinished roves for rivets.
North tower: basal rubble and midden deposit.
- 42 Two horseshoes.
North tower: one of the lower rubble and midden deposits.
- 43 Part of a sickle, including the tang for the handle and 180 mm length of the blade. It is wedge-shaped in cross section with a maximum width of 37 mm. Not illustrated.
East range: topsoil.

Window glass (not illustrated)

- 44 Fragment of poorly preserved window glass, 3 mm thick, with grozed edge.
North tower: one of the lower rubble and midden deposits.

Antler (illus 21)

- 45 Perforated disc.
North tower: one of the lower rubble and midden deposits.

Stone (illus 21)

- 46 Red sandstone whetstone, blackened with oil. It is long and rectangular in shape, well polished on all its faces.
North tower: one of the lower rubble and midden deposits.
- 47 A half of a two-piece steatite mould, for making beads.
East range: possible occupation debris (probably 17th century or later) in north chamber.

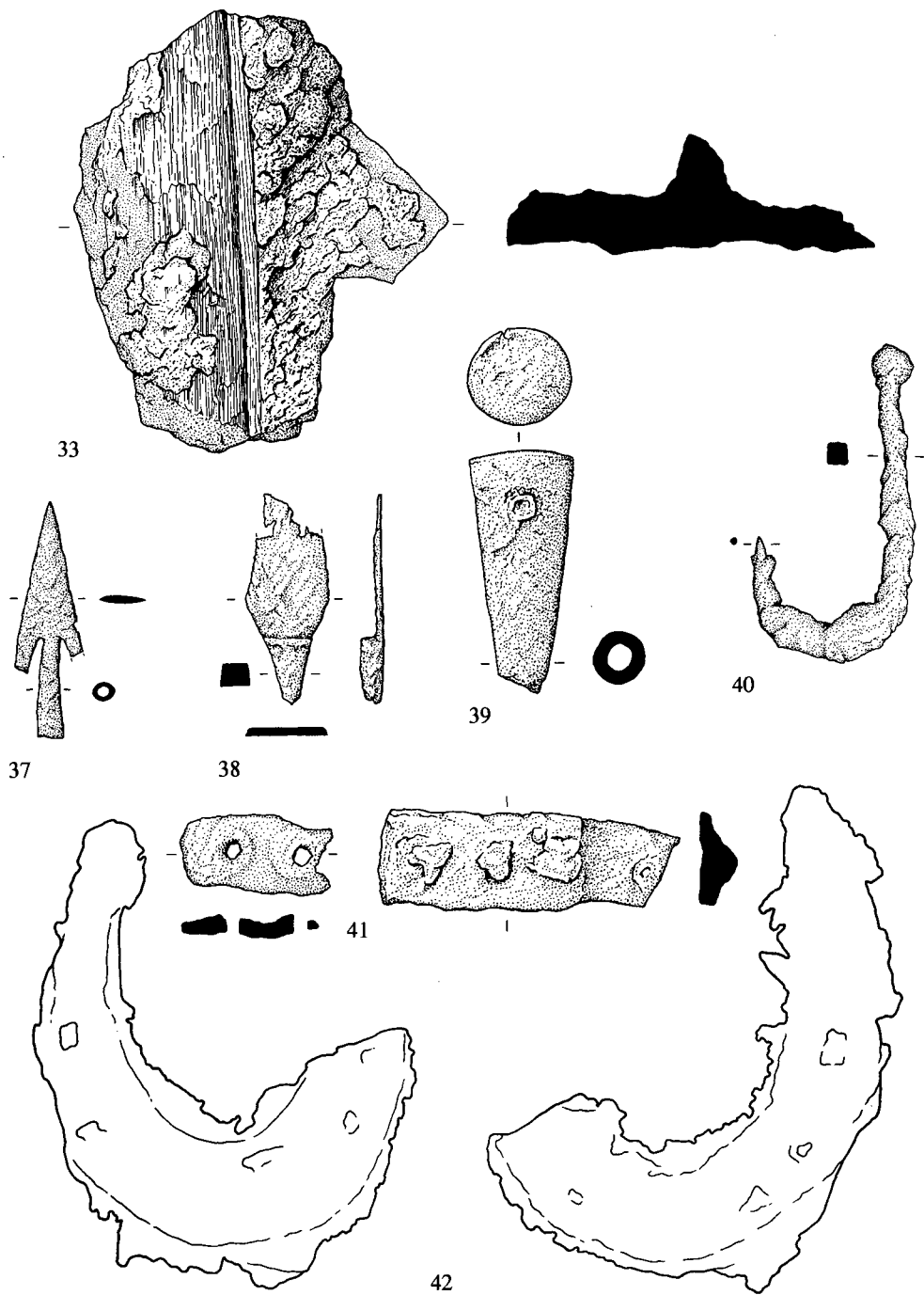
POTTERY

Prehistoric pottery

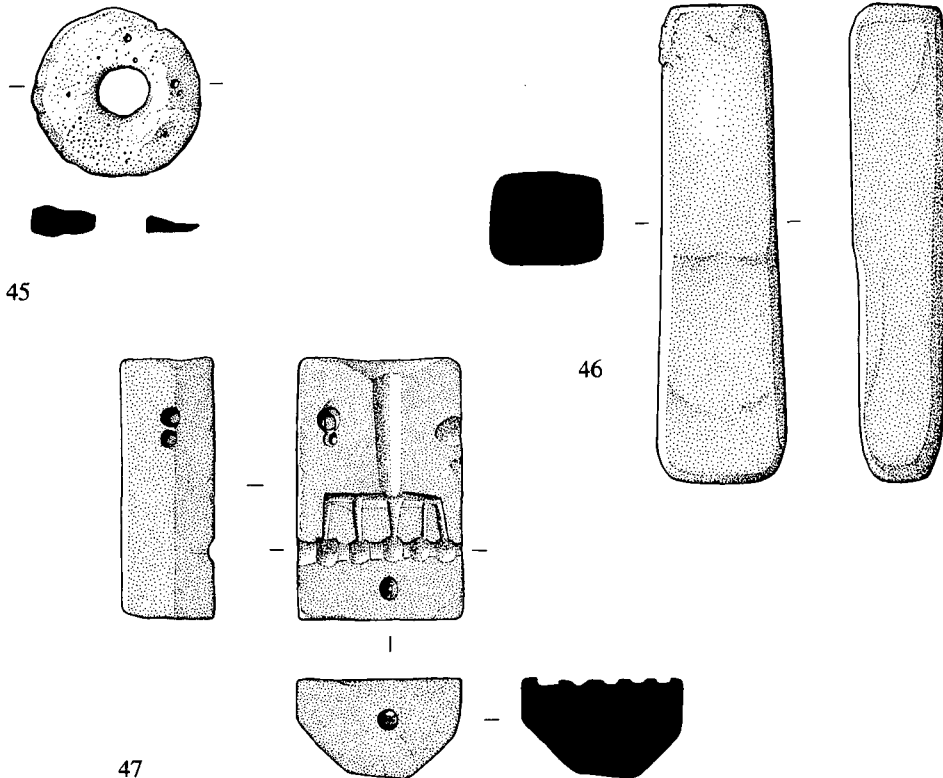
Helen Smith

A single sherd of prehistoric pottery was recovered from one of the infilling deposits within the north tower. The interior of the abandoned 13th-century tower was used as a midden over a long period and the pottery was retrieved from one of the post-medieval levels of this material. Despite the residual nature of this deposit, it is unlikely, given the difficulty of access to the site, that the pottery was brought in with material from beyond the castle rock. The remains of extensive, pre-13th-century activity on the site are unlikely to have survived as the castle was built directly upon the bedrock although, given its prominent and defensible location, it is possible that the castle rock was occupied in earlier times.

The single body sherd has a partially concave profile and measures 64 mm across and 60 mm high. It is 8 mm thick and is made of a fine clay with fine angular crushed rock inclusions, mainly of quartz (0.5–1.0 mm in size) with occasional flecks of mica. The exterior of the sherd is a greyish-pink which graduates to a dark grey in the core and interior. This coloration is consistent with the oxidation of the outer surface, which might result from inversion of the vessel during firing in a simple bonfire kiln. The sherd comes from a hand-built vessel with smoothed surfaces. Although part of the interior is irregular and rough, this may be due to erosion or decay of the fabric in the soil after deposition. Decoration of the exterior surface consists of a carefully executed horizontal line of oblique impressions, spaced approximately 8 mm apart. These appear to have been made with



ILLUS 20 Iron objects (scale 1:2)



ILLUS 21 Antler and stone objects (scale 2:3)

the end of a small mammal or bird bone (cf Liddell 1929). Traces of a second parallel line of impressions are also visible along one edge of the sherd.

Given the difficulties of positive identification from a single body sherd, it is tentatively suggested that the decoration and form are consistent with the neck of a large vase-type food vessel of the early second millennium. These pots are found in both domestic and funerary contexts (Gibson 1986, 40). Whilst there are no known Bronze Age settlement sites in the immediate vicinity, there is ample evidence of human presence at this time from a series of burial cairns along the southern shore of Loch Etive (RCAHMS 1975, 9). Other monuments of this period in the locality include stone circles, standing stones, cists and cup-and-ring marked stones. Bronze Age pottery has been found at a number of these sites (RCAHMS 1975, 14–15), including a complete food vessel from the chambered cairn at Dalineun (Ritchie 1974, 59) and food vessel sherds from the chambered cairn at Achnacreebeag (Ritchie 1973, 41).

Medieval and post-medieval pottery (not illustrated)

Robert S Will

A total of 123 sherds of medieval and post-medieval pottery was examined. Six of the 55 medieval sherds are in a red fabric, presumably of local origin, and are from jugs. These sherds, recovered

from lower infilling deposits in the north tower and levelling material below one of the floor surfaces in the east range, probably date to the 15th century. The remaining medieval sherds are in Scottish east coast white gritty-type fabrics, dating probably to the 14th or early 15th century. The early post-medieval sherds are in Scottish post-medieval reduced ware fabrics, this material often being referred to as 'reduced green glaze' ware. This material occurs throughout Scotland and dates from the 15th to the 18th century. The only kiln site to be positively identified was at Throsk, near Stirling (Caldwell & Dean 1992), although it has been suggested that another kiln was operating near Glasgow (Haggarty 1980). At least two vessels are represented: a jug recovered from the uppermost clay floor in the east range; and a larger, two-handled storage jar with a decorative incised line round the shoulders which was retrieved from a 19th-century deposit.

The remaining 48 sherds are of Early Modern material, most of which was retrieved from disturbed contexts and other recent deposits. One sherd of particular interest is from an English slip-decorated platter, probably dating from the late 17th or early 18th century. Such vessels are highly decorated with various designs in two or even three colours and often have inscriptions, names and dates on them. Unfortunately, this sherd is from the outer rim and, although highly decorated, does not bear any letters or numerals. There were other slipwares present, including a platter with a combed design dating to the mid-18th century and a large dairy bowl from the 19th or 20th century. Other vessels of interest include the base of an 18th-century, salt-glazed, globular storage jar; a fragment of a small stoneware mug that has been machine-finished on a lathe and is probably English; the complete base of a jar or bowl in red earthenware with a hand-painted flower on the inside; and two sherds of 'creamware' dating to c 1800. Two sherds of white earthenware with a pale blue tin glaze and a hand painted design were also recovered. They share all the characteristics of vessels manufactured at the Delftfield pottery in Glasgow which operated from 1748 to 1810. However, without a maker's mark, it is very difficult to be certain of their provenance.

The remaining sherds consist of various white and red earthenwares with no distinguishing features, which date to the 19th and 20th centuries.

CLAY TOBACCO PIPES (ILLUS 22–24)

Dennis B Gallagher

The excavation yielded 111 clay pipe fragments (14 bowl, 85 stem and 12 mouthpiece fragments). A further 21 pipe bowls, comprising examples recovered from earlier investigations and stray finds at the castle, are also considered here. This report comprises a catalogue of illustrated material and a discussion of the pipes in relation to their economic and social contexts.

Catalogue of illustrated pipes from the recent excavations

- 1 Slender heeled bowl, bottered with partial milling on front and rear of rim; $\frac{7}{64}$ in; probably a Chester product; cf Chester type 53, Rutter & Davey 1980, 219; c 1640–80.
East range, north chamber: uppermost clay floor.
- 2 Bowl with ligatured HL incuse; bottered and milled; $\frac{7}{64}$ in; south Lancashire; cf Davey *et al* 1982, 195, fig 13, no 8; and Davey 1985, 174–5, fig 3, no 22; 1640–60.
East range, north chamber: uppermost clay floor.
- 3 Spurred bowl; bottered and finely milled; $\frac{6}{64}$ in; north-west England, cf Rutter & Davey 1980, 219, no 55; c 1640–80.
East range: levelling material below ?18th-century hearth in north gable.

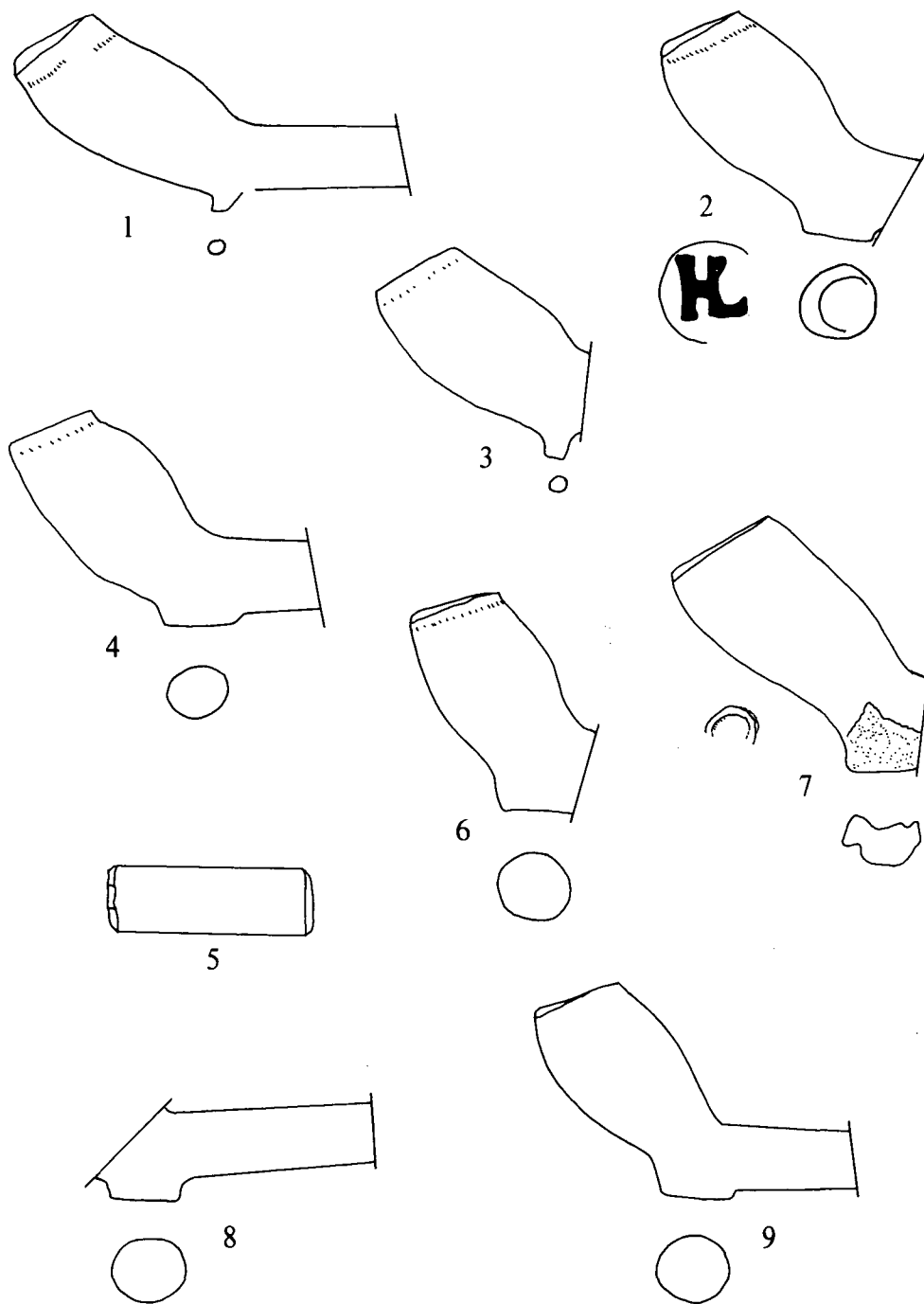
- 4 Heeled bowl, bottered and milled; $\frac{6}{64}$ in; north-west England; cf Chester type 32; Rutter & Davey 1980, 219; c 1640–80.
East range: levelling material below ?18th-century hearth in north gable.
- 5 Burnished stem fragment with both ends ground smooth for reuse as a wigcurler; $\frac{6}{64}$ in.
East range, north chamber: uppermost clay floor.
- 6 Upright heeled bowl, bottered, milled and burnished; north-west England; $\frac{7}{64}$ in.
East range: uppermost clay floor in north chamber.
- 7 Low quality bowl, mould-imparted C on right side, damaged on left side of foot, lightly bottered but not milled; $\frac{7}{64}$ in; James Colquhoun of Glasgow; c 1660–80.
East range: uppermost clay floor in north chamber.
- 8 Basal fragment; $\frac{7}{64}$ in; 17th century.
East range: thin layer of coal dust and trample overlying 18th-century or earlier floor surface within north chamber.
- 9 Low-quality slender bowl, lightly bottered; $\frac{7}{64}$ in; north-west England type; cf Davey 1978, 7, Fig 3.J.
East range: uppermost clay floor in north chamber.

Bowls 2 and 4 are both of a mid-17th-century date. All the stems have bores consistent with 17th-century types; those from the uppermost clay floor of the east range fall within a date range of c 1640–80. Over half (59 fragments, or 53%) of the fragments were recovered from that clay floor, which is thought to date to the 19th century: these pipes are, therefore, residual. Two bowls, dated to the period 1640–80, were retrieved from below the hearth in the north wall of the building, perhaps making them contemporary with that deposit.

Catalogue of pipes recovered from earlier investigations

NMS refers to the National Museums of Scotland catalogue number

- 10 Bowl with slightly damaged rim; fully milled, heavily bottered; $\frac{6}{64}$ in; 1640–60; NMS: HX1261.D.
- 11 Bowl with slightly damaged rim, bottered, no milling; $\frac{7}{64}$ in; 1640–80; NMS: HX1262.
- 12 Bowl, fully milled and heavily bottered, base scored during finishing; $\frac{6}{64}$ in; 1640–60; NMS: HX1261.F.
- 13 Bowl, three-quarters milled, lightly bottered; $\frac{7}{64}$ in; 1640–80; NMS: HX1261.C.
- 14 Burnished bowl, one third of rim missing, complete milling on extant part; lightly bottered; $\frac{7}{64}$ in; possibly north-west England, cf Chester form 28–9, c 1640–80 (Rutter & Davey 1980, 217); NMS: HX1261.B.
- 15 Elongated bowl, three-quarters milled; lightly bottered; $\frac{7}{64}$ in; possibly north-west England, cf Chester form 28, c 1640–80 (Rutter & Davey 1980, 217); NMS: HX1261.A.
- 16 Bowl, fully milled and heavily bottered; $\frac{6}{64}$ in; 1640–80; NMS: HX1261.E.
- 17 Bowl, three-quarters milled, heavily bottered, orange discolouration on surface; $\frac{6}{64}$ in; 1640–80; NMS: HX1261.G.
- 18 Heeled bowl with mould-imparted W/B and castle type basal stamp, burnished, rear of rim missing, full milling on extant rim; $\frac{6}{64}$ in; William Banks of Edinburgh, 1640–60; NMS: HX1260.
- 19 Spurred bowl, orange discoloration on surface, rim mostly missing but traces of milling on extant part; $\frac{7}{64}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.H.
- 20 Spurred bowl; front of bowl damaged, milled; $\frac{7}{64}$ in; English, 1640–80; NMS: HX1263.I.
- 21 Spurred bowl; milling surviving on damaged rim; $\frac{6}{64}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.J.
- 22 Spurred bowl, fully milled; $\frac{6}{64}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.A.



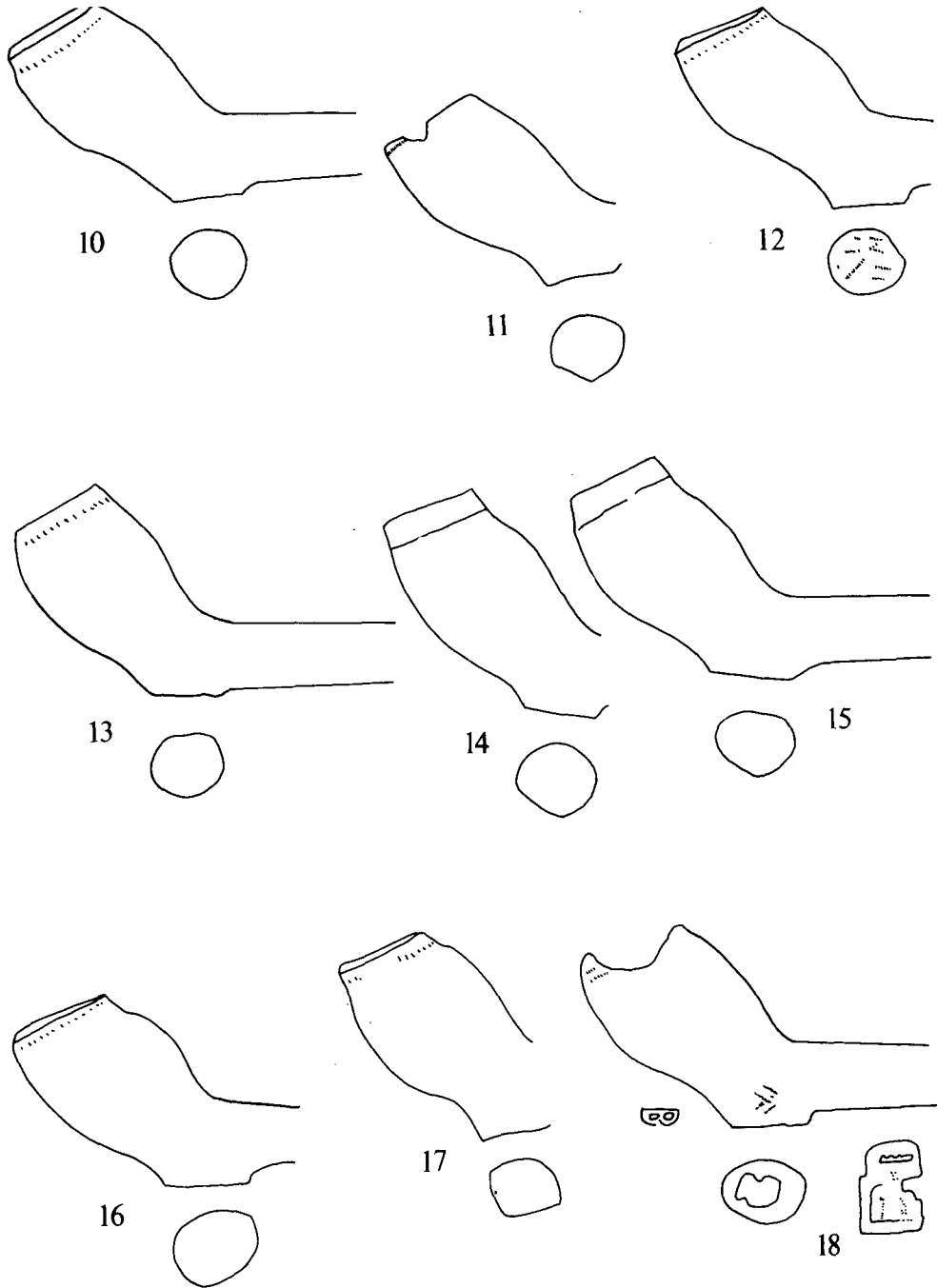
ILLUS 22 Clay tobacco pipes (scale 1:1)

- 23 Spurred bowl, finely bottered, fully milled; $\frac{6}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.B.
- 24 Spurred bowl, finely bottered, half milled; $\frac{6}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.C.
- 25 Spurred bowl, finely bottered; fully milled; $\frac{6}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.D.
- 26 Bowl with damaged spur, finely bottered, fully milled; $\frac{6}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.E.
- 27 Spurred bowl, finely bottered; fully milled; $\frac{6}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.F.
- 28 Spurred bowl, finely bottered; fully milled; $\frac{7}{8}$ in; possibly north-west England, cf Chester form 54, c 1640–80 (Rutter & Davey 1980, 219); NMS: HX1263.G.
- 29 Bowl with damaged spur, fully milled; $\frac{6}{8}$ in; form similar to no 28, c 1640–80; not illustrated; NMS: HX1263.K.
- 30 Upper fragment of a bowl, finely bottered, half-milled; bowl form similar to no 21, c 1640–80; not illustrated; NMS: HX1264.A.
- 31 Upper fragment of a bowl, finely bottered, full milling; bowl form similar to no 21, c 1640–80; not illustrated; NMS: HX1264.B.

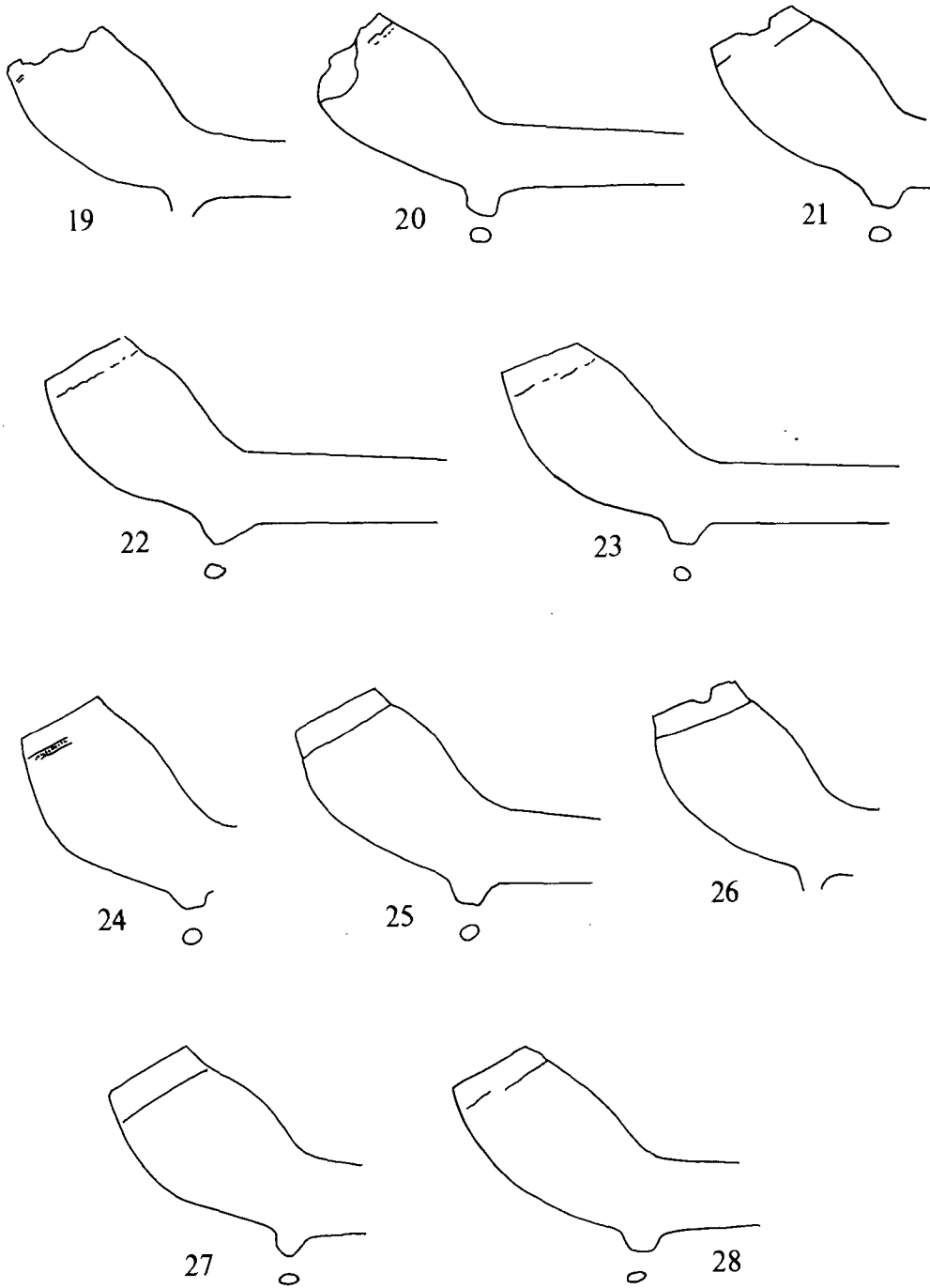
The clay pipes: discussion

During the 17th century, Dunstaffnage was a long way from the known centres of pipe manufacture: Edinburgh, the most important centre of pipe-making, was 120 miles away; and Glasgow, where pipes were manufactured from the 1660s, was a little nearer although still 90 miles from the castle. Little work has been done on pipes recovered from west coast sites, as the number of excavated fragments is small. It is clear, however, that the pattern of distribution differed from that elsewhere in Scotland. In the mid-17th century the pipe supply of south-east Scotland was dominated by Edinburgh manufacturers whilst Dutch imports were dominant in the north-east of the country. Glasgow entered the market from c 1660. The Dunstaffnage pipes include marked examples of both Scottish and English products. Edinburgh is represented by the products of William Banks (no 15) who monopolized Scottish pipe-making before c 1660. There is also a Glasgow bowl (no 7) by James Colquhoun, the most prominent pipe manufacturer in 17th-century Glasgow (Gallagher 1987, 38–9). His products were widely distributed throughout southern Scotland and he supplied pipes for the ill-fated Darien expedition. There is one marked example of an English pipe in the Dunstaffnage assemblage: a bowl stamped with HL (no 3) which was probably made for a member of the Lyon family (King 1982, 273; Pope 1982, 302). This piece was manufactured in the Rainford area of south Lancashire, as in all likelihood were nos 2, 4, 5 and 6 (R Dagnall, *pers comm*). Most of the pipes are unmarked and include forms that were common to many centres of production in the mid-17th century. Heeled bowls were not favoured in Scotland and such pipes can be assigned to English sources. Bowls 19–28 are similar to Chester form 54 (Rutter & Davey 1980, 219) although they are not necessarily from Chester itself. The unheeled bowls are more difficult to provenance: nos 10–16 may be Scottish forms; the fine bottering and low position of the milling on nos 17 and 18 are atypical of Scottish bowls, those examples probably being from north-west England.

With such a small group it is unclear whether this is evidence of sea-borne trade or merely the mobility of personal possessions, possibly during a military campaign. It is probably no coincidence that the castle was garrisoned by Cromwellian troops between 1652 and 1660. There is documentary evidence for the export of pipes from Chester to Northern Ireland in the 17th century (*ibid*, 47) and from Chester to Kirkcudbright at about the same time (Smout 1959, 40). Pipes from south Lancashire



ILLUS 23 Clay tobacco pipes (scale 1:1)



ILLUS 24 Clay tobacco pipes (scale 1:1)

have been found in Dumfries (Williams 1980, 15) and Drogheda, on the east coast of Ireland, the latter including a fragment of a stamp similar to the HL stamp on no 3 (Norton 1984, 201).

Although this is a small assemblage, the large number of burnished fragments is indicative of the high social status of the smokers, as would be expected of a castle site. The presence of the stem of a wig curler (no 5) also indicates the high status of a site of this period. Wigs became fashionable in England after the Restoration and, while purpose-made wig curlers were manufactured from pipe clay, pipe stems were also reused for this purpose (Cheminant 1982). The length (29 mm) of the Dunstaffnage wig curler is short compared with those of purpose-made examples and is likely to reflect the reuse of a random selection of burnished stems.

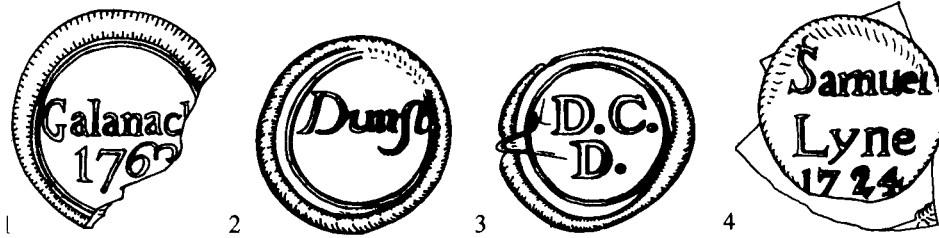
VESSEL GLASS (ILLUS 25)

K R Murdoch

The assemblage retrieved from the east range and the north tower comprises a relatively small but interesting group of wine bottle fragments dating from the early 18th to the mid-19th century. Most of these items were probably manufactured in Glasgow which produced bottles from 1701 or 1702 onwards or from Dumbarton where glass production began in the early 1770s. A quarry of crown glass recovered from recently deposited material was probably from Dumbarton. By far the most interesting fragments consisted of a group of five shoulder seals, all within 19th- or 20th-century deposits. The seal with the self-explanatory legend 'Dunst' (2) was executed in a style very similar to three seals recovered in the late 1970s from an unpublished excavation at Cramond, Edinburgh: these are thought to date from the early 18th century. Another relatively early seal, inscribed 'Samuel Lyne 1724', may be an English import. This piece is very dark green: a rare colour in Scotland but common south of the Border at that date. Another indication of its probable English origin is the lack of a definite border to the impression; Scottish seals usually have a thin ring enclosing the legend or device. The date, 1724, probably refers to the date of manufacture; on rare occasions such dates may be commemorative, although this is unlikely in this case. Several examples are illustrated in Ruggles-Brise (1949, 158–59). The 'Galanach' seal probably refers to a relatively important local figure who lived at Gallanach, about 3 km south-west of Oban. It is possible, but much less likely, that it was the seal of a public house or a vintner. Two seals bearing the initials 'D.C.D.' are slightly later in date. The neatly formed capital letters indicate a precise manufacturing process, free from the blemishes which tended to beset earlier examples. The 'C' and second 'D' could be translated as 'Captain (or Campbell) of Dunstaffnage', the first 'D' perhaps being the first name of one of the office holders.

All the seals described below were recovered from post-abandonment debris within the east range of the castle.

- 1 Broken seal in dull, mid-green glass with no patina. It bears the name 'Galanach' and the date 1763, within an enclosing ring 34 mm in diameter. The date is almost certainly the date of manufacture.
- 2 Shoulder seal, in green glass, with the legend 'Dunst' in script form, the 's' being of the long, 'f' type. The lettering is poorly centred within an enclosing ring of 31 mm diameter.
- 3 Shoulder seal in dull, mainly firebright, olive-green glass bearing the initials 'D.C.D.' in capitals. The letters are enclosed within a thin, raised ring of diameter 29 mm. Probably late 18th or early 19th century.
- 4 Shoulder seal, mainly firebright, in dark, olive-green glass bearing the inscription 'Samuel Lyne 1724'. The legend is not enclosed but is simply in relief on a flat pad of glass, 37–38 mm in diameter.
- 5 Shoulder seal, identical to 4, on a part side wall of a bottle. Appears to be from the same die as 4. Not illustrated.



ILLUS 25 Glass bottle seals (scale 2:3)

ENVIRONMENTAL REMAINS

CHARCOAL

Sheila Boardman

Clean charcoal retrieved from a levelling deposit below the remnants of a clay floor at the north end of the east range was coarse sieved at 4 mm and all material greater than c 5 mm was identified.

The majority of the material can be described as radially split/sawn oak (*Quercus*) timber. Wood timbers are easier to split or saw along the grain but will also break in this direction as they decay, become charred or as the charcoal breaks down in the soil. It is also very difficult to detect wood-working in charcoal because the outer layers of the original wood have usually been lost. In this sample smoothed surfaces were noted and where they run contrary to the grain of the wood and were sufficiently 'clean', they have been interpreted as possible sawn or chopped surfaces. There was sufficient evidence on the larger charcoal fragments (up to 92 mm long) to suggest that most are derived from squared timbers and that some were probably half or quarter sawn/chopped. The great variation in the ring patterns on the larger fragments suggests several different worked oak timbers are represented. This supports the hypothesis that this material was originally derived from demolished timbers in the east range or the adjacent north range or that it was the result of a conflagration within the east range. One piece of the mature oak timber was a flattened rectangle (77 mm by 56 mm) which was 10–15 mm thick and slightly wedge-shaped. This is a possible plank fragment which was subsequently split along the weaker, radial line of the wood. This could also represent the remnants of a wedge or block of larger timber.

The other material present in the sample was some small (mostly less than 8 mm) ash (*Fraxinus*) and hazel (*Corylus*) charcoal, perhaps the remnant of fuel debris dumped from the hearth in the north wall of the building.

FAUNAL REMAINS

Tanya O'Sullivan & Jennifer Thoms

The animal bone assemblage has been divided into those recovered from materials deposited into the base of the north tower after it had been abandoned; those retrieved from floor surfaces within the east range; and occupation debris and levelling deposits in the same building.

The north tower

The upper deposits within the tower contained late 19th-century artefacts as well as those of medieval date, indicating that these materials were residual in nature. As a consequence, bones recovered from

those levels were not retained for examination. Not all of the assemblage from the lower levels was available for analysis. A minimum of three cows, four sheep, one pig and one domestic fowl were represented. The evidence of butchery indicates that the long bone shafts had been split for marrow; cut marks on the rib blades may be the result of meat being removed with a knife during a meal. The cut marks on the distal condyle of the domestic fowl tibio-tarsus are consistent with the removal of the lower limb bones before cooking (O'Sullivan 1991, 34). A number of the bones had been gnawed by carnivores, probably dogs or foxes. Only the sheep provided some data on ageing (after Silver 1969) which indicated that these particular animals were under 21 months at the time of death. Sheep of this age would have provided no more than one fleece of wool.

The east range

The amount of information gained from these bones was limited by the small number of fragments recovered from the excavation. It is not possible to infer much about the economy of the site from such a small sample. However, it was possible to glean some information on the range of species that had been exploited and to get a rough idea of the ages at death of some of the animals represented in the assemblage. A total of 121 bone fragments was retrieved from four groups of contexts, of which 34 fragments were identified to species. These were: cattle (*Bos taurus*); pig (*Sus sp*); goat (*Capra hircus*); sheep (*Ovis aries*); red deer (*Cervus elaphus*); domestic fowl (*Gallus gallus*); duck, possibly mallard, (*Anas platyrhynchos*); and cat (*Felis catus*). The fragmentary state of most of the bones suggests that they are butchery remains; butchery marks were also noted on some fragments.

Within the uppermost clay floor there were remains from two cattle: one mature beast and a young calf. Ribs from a small ungulate (sheep, goat or roe deer) and a small fragment of a pelvic bone from another were also present within the clay of the floor. Two bird bones, provisionally identified as from a domestic fowl (hen) and a mallard duck, were also retrieved. The bones were in good structural condition, not rotted or worn. While their fragmentary state indicates that they are butchered remains, few butchery marks are visible on the bone fragments although a calf humerus does have a number of filleting marks. One indeterminate bird bone has a cut mark on it. Two contexts interpreted as occupation debris and/or levelling materials (perhaps components of the same general deposit) yielded several bones. A minimum of two cattle (one over three years and the other more than seven months old at death) and at least one (but probably more) pig were represented. The fourth premolar and first molar on a fragment of pig maxilla were so badly worn that the biting surface was concave, an indication of old age (Silver 1969). The pig appeared to be over three years old and was probably breeding stock. There were also several fragments of goat/sheep bones and perhaps one from a red deer. The earliest identifiable clay floor contained only five bones, of which four were rib fragments (three from the same rib) from a large ungulate. Six fragments were recovered from the grey-black, silty soil (F249) that sat directly on the bedrock. The bones were in poor condition, perhaps because of the length of time they had been buried. One fragment, displaying a butchery mark, was from a red deer and another appeared to be from a bovid, more than one year old at death. The remainder were indeterminate.

The bone fragments from the east range appear to derive from domestic waste although the relatively small size of the assemblage obviously limits the information that can be obtained from such data. It is evident, however, that the expected domesticates are present and that deer were also exploited. The occurrence of meat-bearing and non-meat-bearing bones implies that the animals were butchered on the site rather than being imported as joints of meat.

DISCUSSION

Although the overall area of investigation was relatively small – consisting only of the interior of the north tower, the adjacent part of the east range and the stair at its south end – the excavation posed several questions concerning the layout and phasing of the castle. An examination of the excavation results coupled with a reappraisal of the architecture of the north tower and other parts of the castle suggests that the original layout may have differed considerably from its previously assumed design.

THE EARLY OCCUPATION OF THE SITE

Dunstaffnage would have been a prime location for a fortification long before the construction of the (?13th century) castle. With the exception of a single sherd of Bronze Age pottery, no material evidence of such occupation was uncovered within the area of excavation. However, although the levelling operations associated with the construction of substantial masonry buildings on the summit of a rock might be expected to destroy the evidence of earlier structures, it is quite possible that traces of pre-13th-century occupation may still survive at some points around the site.

THE 13TH-CENTURY CASTLE

The summit of the castle rock covers a relatively small area and the whole of it would have been exploited by the castle builders. It is probably safe to assume that the curtain wall was always perched near the edge of the plateau which, as well as affording the maximum amount of space for its inhabitants, would have presented a daunting prospect to would-be attackers.

The earliest structure uncovered was a section of the primary curtain wall that evidently predated the north tower. It is thought likely that this early curtain wall also predated the east range, the west tower and the extant south corner of the curtain wall. Shortly before they meet the west tower, both the north-west and south-west curtain walls return inwards, the quoins being of sandstone in each case. This suggests that those walls were built before the west tower although it is not easy to envisage the precise layout of that corner of the castle during its primary phase. There are few architectural features by which these structures might be dated, other than the fish-tail slits in the west tower which bear comparison with those at Inverlochy Castle, Lochaber, which are thought to date to the late 13th century. The breach at the south end of the south-west curtain may be an indication that the enclosure had been extended outwards at some stage. Where the bedrock falls away sharply, both the north tower and the protrusion at the south corner are supported on masonry plinths, the sloping ground being levelled up thereafter. The south corner may have been redesigned simply to strengthen it whereas the towers built at the north and west corners would have either increased the available living space or replaced earlier, perhaps less substantial structures. In all probability the donjon was the north tower rather than the west tower, as suggested by Simpson (1958, 78) and by Cruden (1960, 41). Prior to this, most of the buildings within the enclosure were probably of timber although the principal accommodation may have been within a stone building. This type of arrangement, comprising a simple stone curtain wall enclosing mostly timber buildings, occurred at several contemporary and near-contemporary castles on the western seaboard of Scotland including: Rothesay, on the Isle of Bute; Castle Sween, at the north end of Knapdale; Mingarry, in Ardnamurchan; and Duart, Isle of Mull. As well as increasing accommodation space, the addition of towers at the north and west corners of the enclosure would have provided convenient look-out

points from the tops of those buildings. The entrance to the enclosure may also have been upgraded at this time, perhaps from a simple gateway to a round tower projecting beyond the east curtain; which was further extended at a later date.

The excavation did not reveal any evidence with which to date either the construction of the original curtain wall or the addition of the north tower or any contemporary structures. Furthermore, there are no known historical events with which these building phases can be linked with any confidence, although a few possible options may be worth considering. If it was Duncan MacDougall who added the corner towers, it is difficult to imagine who was responsible for the original work. It is more likely that Ewen, Duncan's son, carried out the alterations either on becoming Lord of Lorn in c 1240 or after 1255 when he was restored to royal favour following his expulsion from Argyll in 1249. Alternatively, the towers could have been added at a much later date, perhaps after the MacDougalls forfeited the castle to King Robert I in 1309, although little building work was carried out under Robert as the exchequer simply could not afford it. Another, albeit unlikely, possibility is that these alterations were carried out following the castle's transference into Campbell hands after 1321. In short, the most plausible explanation is that the original work on the castle was undertaken in the third quarter of the 13th century by Duncan MacDougall, as was the construction of the nearby chapel (RCAHMS 1975, 124), and that the north and west towers and perhaps other structures were added a short time later by his son, Ewen.

Dating subsequent phases of the building history of the north tower has proved even more difficult. The two major structural phases apparent inside the tower could perhaps be attributed to separate building campaigns; although it is thought far more likely that they reflect a stage of partial demolition followed by one of rebuilding. Whether this demolition was the result of structural weakness within the building or was caused by deliberate destruction is unknown. If the latter, then it is difficult to find a likely candidate for it. It is conceivable that Robert Bruce's policy of slighting castles to render them uninhabitable for English armies could have reached Dunstaffnage during the early years of the 14th century. However, this would not explain why other parts of the castle, which to this day retain their 13th-century arrow slits and windows, were left unscathed. Although we are left with few clues as to when the tower first collapsed, the artefactual evidence indicates that it could not have been rebuilt until the 15th century.

There was no material evidence to substantiate or refute the suggestion that the north tower and one of the adjacent ranges contained the lord's private apartments. Simpson (1958, 87) concluded that the 'great hall' occupied the first floor of the north-west range and that it was linked directly with the first storey of the west tower, which he assumed was the donjon. The north tower is a considerably larger building, however, and far more likely to have been the donjon. Although the evidence is inconclusive, there might have been a short passage at first floor level between the north tower and the east range. If there had not been a fireplace in the east end of the north-west range (as there was in the 16th century) there may have been direct access between it and the north tower. Either of these ranges could have contained a hall; whereas the solar and perhaps further private apartments were probably located within the upper floor(s) of the north tower. If there was a kitchen or other domestic apartments at ground floor level in the east range, the fireplace would most probably have been in its west wall: a chimney could not have been accommodated anywhere else. Alternatively, this bottom floor of the building could have been simply a store; and the kitchen housed within the north-west range. The basement of the north tower was probably also a store; its windows perhaps affording defenders lines of fire rather than illuminating the room's interior. It was not possible to confirm when the stair at the south end of the east range was built although it would be reasonable to assume that it had replaced an earlier stair set against the outside of the range. The floor level in the ground storey of the building is considerably higher than it is in the gatehouse and, if the two

structures functioned simultaneously, there must either have been a short flight of steps leading upwards into the east range or its floor sloped downwards towards the south. Unfortunately, excavation within this area was somewhat limited and it is not possible to speculate with any confidence about the precise relationship between these two buildings during the 13th century.

THE NORTH TOWER AND THE EAST RANGE IN THE LATE MEDIEVAL AND POST-MEDIEVAL PERIODS

Six centuries of occupation have left their mark on the layout of Dunstaffnage Castle. Changing fashions of architecture and the needs of residents are reflected particularly in the differences between the north tower and the gatehouse, of which the main surviving elements date from the 13th and 16th centuries respectively. Other, less conspicuous alterations may be masked within the castle's masonry; others perhaps still await discovery. But much of the evidence of change may well have been swept away by still later programmes of remodelling, masonry collapse and stone robbing. Doubtless, many modifications were imposed on the east range and the north tower between the 13th and 19th centuries. Most of the modifications revealed by excavations within the east range could not be ascribed firm dates because the area of investigation was very limited and there were few stratified artefacts.

The insertion of the fireplace in the north gable of the east range (probably in the early 18th century) signifies a time of remodelling within this building. The presence of the fireplace and its flue would definitely have prevented access between the east range and north tower at any level. It may not be unreasonable to suggest that the final abandonment of the north tower – its ground floor having been out of use for some considerable time – coincided with the extension and upgrading of the gatehouse tower in the late 16th century. It was there that the Captain of Dunstaffnage chose to live.

By the end of the 18th century much of the castle was in a poor state of repair, although evidently there were 'some habitable bedrooms' in the east range (Philo-Scotus 1861, 109). This supports a description given by Tobias Smollett in 1771: he tells of a stay at what can only have been Dunstaffnage Castle whose 'landlord is a man of consequence in this part [Argyll] of the country; a cadet from the family of Argyle, and hereditary captain of one of his castles – his name, in plain English, is Dougal Campbell. He describes one of the castle buildings as follows: 'The great hall, paved with flat stones, is about forty five feet by twenty two, and serves not only for a dining room, but also for a bed-chamber to gentlemen-dependants and hangers-on of the family. At night half a dozen occasional beds are ranged on each side along the wall' (Smollett 1771, 96–8). The only building at Dunstaffnage that fits such dimensions is the east range whose measurements concur with Smollett's. Although this extract is from a work of (?part) fiction, it is highly unlikely that this passage was a complete fabrication.

ARCHIVE AND FINDS

All project records are lodged with the National Monuments Record of Scotland. All finds are with the National Museums of Scotland.

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