

## Excavations at Sauchie Tower, Clackmannanshire

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### ABSTRACT

*Excavations were carried out in 1984 and 1985 within the ground-floor chambers, the kitchen at entresol level and the first-floor hall of this 15th-century tower, prior to its restoration as a domestic residence. In addition, trenching outside the tower revealed traces of at least one lean-to building and the outflow of a latrine chute against its north wall; and, further north, remnants of a barmkin wall. The excavation was funded by Historic Scotland (former SDD/HBM).*

### INTRODUCTION

Sauchie Tower (NGR: NS 896 957) stands near the right bank of the River Devon, 3 km north of Alloa in Clackmannanshire (illus 1). It is thought to have been built by one James Schaw, 'Comptroller to the King' (RCAHMS 1933, 312), some time between 1430 and 1440 (MacGibbon & Ross 1887, 270), and bears close comparison with the secondary wing of nearby Clackmannan Tower (RCAHMS 1933, 309, 316).

About 25 m west of the tower, and just inside a defensive ditch which is still visible, can be traced the remnants of a barmkin wall into which the residential successor to the tower was incorporated in 1631 (*ibid*, 311). This house had two storeys and a round tower (perhaps originally an element of the enclosure wall) projecting from its north-west corner. Later still a cottage was built against its south gable. Both buildings were demolished in c 1930, leaving only traces of the west face of the 17th-century house and its tower.

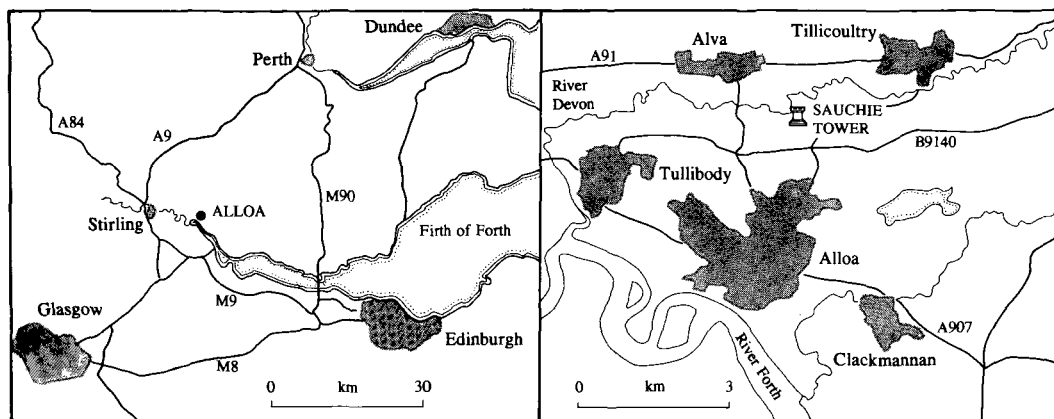
Perhaps the most striking aspect of the architecture of Sauchie Tower is the sharp contrast between its external and internal appearances. Its rather plain, solid exterior, albeit of high quality, coursed ashlar, is relieved only by an attractive entrance arch and some decoration at the wall heads (illus 2). Within its walls, however, lie several features of architectural interest including mural chambers at several levels, ornate fireplaces and elaborate window recesses complete with bench seating.

The tower has four principal storeys. However, the division of the vaulted ground floor into two levels and the near certainty that there had once been apartments within the attic effectively makes it a six-storey building. It measures 11.5 m by 10.3 m externally over walls 1.6–2.0 m thick, with the exception of the west wall, which is over 3 m thick and contains mural chambers at ground, entresol and first-floor levels.

The entrance, which is now bricked up but which formerly had inner and outer doors, is at ground-floor level in the west wall and opens into a lobby contained within the thickness of the

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

wall. From there access is gained to a circular stair (the only one in the tower) in the north-west corner of the building. Opposite the stair is a small chamber for a guard or porter. The south end of the west wall is taken up by a small cellar, accessed only from the main ground-floor chamber. There are two narrow windows in the east wall and a semicircular well in the south wall of this room which is roofed at a height of approximately 2.25 m.

The main chamber at entresol level is lit by a recessed window with bench seats in the west wall. Contained within the thickness of the west wall is a long, vaulted chamber — a kitchen or bakehouse — with a fireplace at its south end, wider than the room itself.

At first-floor level is the main hall, formerly heated by a large fireplace with fine, moulded jambs and a massive lintel in the east wall. To its immediate north is a large, recessed window with bench seating; there is another such window in the south wall. In the west wall a spacious window recess, almost a room itself, leads to a private chamber. The north wall contains a mural garderobe and a small wash-hand basin.

The main apartments are larger at second- and third-floor levels because there are no mural chambers within the west wall: although there are small, L-shaped chambers within the north-east and south-east corners of the building on the second storey, the former containing a garderobe. Other features at that level include a large fireplace and another garderobe in the south wall and a window with bench seats in each of the south, east and west walls. Amongst the few original features surviving at third-floor level are a small fireplace, a pair of cupboards and a sealed window, all within the south wall.

The wall heads survive reasonably intact, with a broad parapet walk supported on double corbels and embellished at the corners of the tower with small, circular turrets resting on four continuous corbel courses. At the top of the stairs, in the north-west corner of the tower, is a hexagonal cap-house with a pyramidal roof.

Before consolidation work began, the tower was surprisingly intact. Its basic structure appeared sound despite a crack down the east wall where the first-floor fireplace had reduced the wall's thickness to only 0.5 m. The ground-floor vault appeared to be as strong as when the tower was built. Nevertheless, there had been some noticeable deterioration at other points of the building since the survey published by MacGibbon & Ross (1887) a century earlier: they depict the gable ends of the building as more or less complete, and record the presence of oak beams,



ILLUS 2 Sauchie Tower, from the south-west; the entrance to the tower is through the west wall, on the left.  
 (*Historic Scotland © Crown Copyright*)

albeit in poor condition, still visible in the upper storeys. Neither gables nor beams were evident in 1984.

It was not easy to discern contemporary features lying outwith the walls of the tower. Although the course of the barmkin wall could be traced along its north and west sides, the remains of other structures that may have once stood within the enclosure were buried beneath rubble, soil and coal waste, and further masked by dense vegetation. The heightened ground level is particularly noticeable on the south side of the tower where the road, which runs very close to the building, is almost at entresol level; against its west wall two gun ports have been completely covered with debris.

## THE EXCAVATION

In 1982 Sauchie Tower was purchased by Messrs Robert Heath and Alexander Mair with the intention of restoring it, as far as was practical, to its original condition as a dwelling house. Prior

to this proposed work, it was decided to carry out a brief archaeological investigation of elements within the tower and specific parts of its immediate environs. Inside the ground floor of the tower the floor was partly excavated and the adjoining mural cellar cleared of debris. The kitchen, at entresol level, and the first-floor hall and its associated chambers were treated similarly. Outwith the building three small exploratory trenches were opened: one adjacent to the entrance to the tower; one against its north wall; and another cutting across a revetted bank some distance to the north of the tower.

This project was initiated and funded by the Ancient Monuments division of the Scottish Development Department (now Historic Scotland) and directed by John Cannell. On-site work was carried out in November 1984 and March 1985. All of the rooms and trenches were excavated by hand.

#### THE ENTRANCE TO THE TOWER (ILLUS 3)

A small trench, measuring approximately 2.5 m east/west by 1.5 m wide, was opened immediately outside the entrance to the tower. The remnants of what appeared to be a path were uncovered up to 1 m below the modern ground surface. The path was made up of large, tightly jointed, rectangular sandstone flags, 0.2 m thick, and seemed to run along the side of the tower, extending 2.5 m from its west wall. It stretched beyond the north edge of the trench, but the flags appeared to have been robbed out on its south side. Near this point was a layer of bricks, perhaps evidence of a later repair to the path; unfortunately, it was not possible to investigate this feature further. Evidently, the flagstones had continued into the entrance passage of the tower, although few survived into the 1980s: most of the floor had been removed, exposing its mortared rubble base.

#### THE GROUND FLOOR OF THE TOWER (ILLUS 3 & 4)

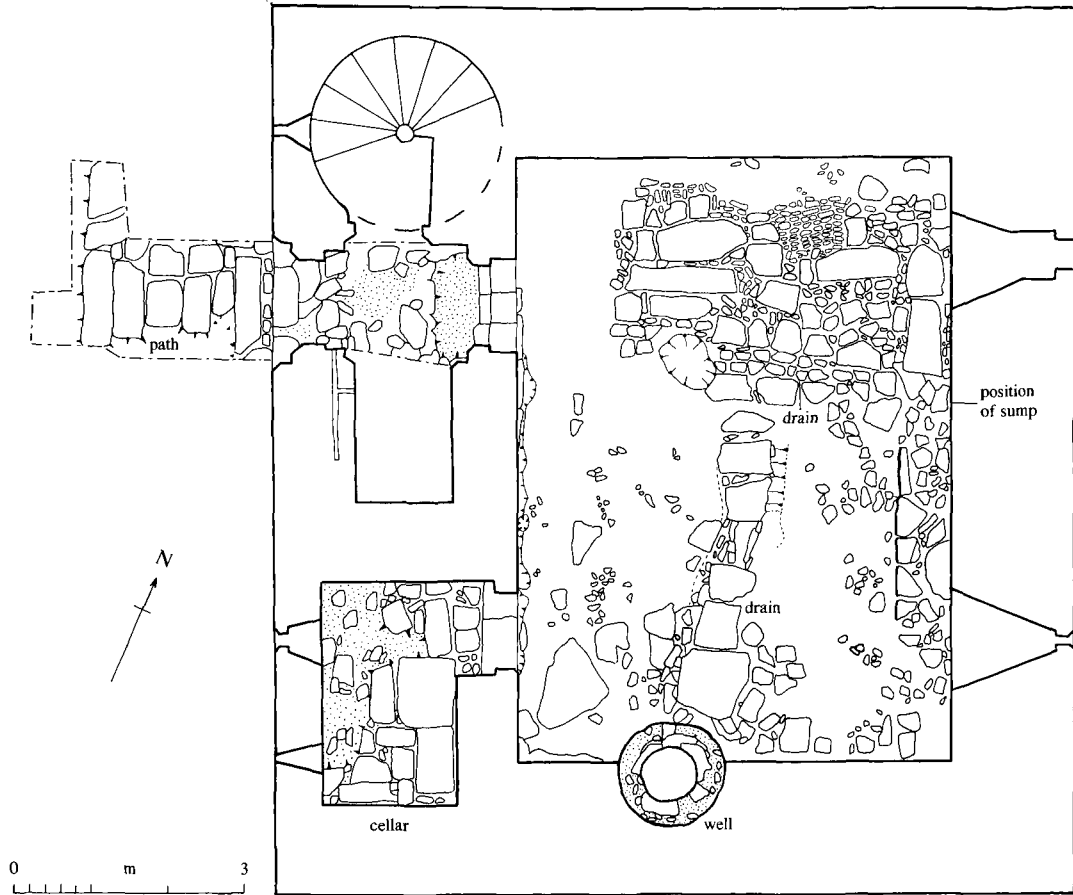
An original objective of the project had been to investigate the well which was built into the south wall of the building at ground-floor level. However, during this investigation it became clear that features of archaeological interest also survived within the floor of the main chamber at this level. As a consequence, the excavation brief was extended to allow for a more thorough examination of these features.

The tower was built on the clay subsoil, its walls bedded into shallow trenches that extended only 80 mm beyond their internal faces. At ground-floor level the principal chamber measured 8.0 m north/south by 5.65 m east/west within walls 1.6 m wide (except the 3 m-wide west wall which contained a guard room and a small mural cellar). The only evidence of constructional activities consisted of a beam slot and three post-holes — presumably traces of scaffolding — cutting the subsoil along the south wall, towards its east end.

Although the interior of the tower was not completely excavated, it appeared that the subsoil sloped downwards in an irregular fashion towards the north and east where the floor level had been made up with deposits of silt and coal-rich soils, 0.1–0.2 m deep. Grey Reduced Ware pottery (broadly dated between the 15th and the 17th centuries) was recovered from these materials.

Built into the south wall of the chamber was a circular well, its shaft measuring 0.7 m in diameter and lined with ashlar. The well was contained within a semicircular recess, 1.0 m high, beneath a low arch and roofed behind the arch with lintels. Approximately 1 m of deposits, containing recent artefacts and pottery dating from c 1700 onwards, were removed from the well. At that level the water-table was reached: during the excavation heavy rain caused its level to rise, flooding the ground floor of the tower.

The overflow from the well would once have been removed by a drain. This measured 0.2 m square, with a base of undisturbed clay subsoil, but lined and capped with sandstone flags, up to 1 m across. It was



ILLUS 3 Plan of the excavated features at ground-floor level within the tower and adjacent to the doorway in the west wall

completely infilled with silts, the upper layer of which contained 18th- and 19th-century pottery. This drain extended 4.3 m from the well where it issued into an open drain, 1 m wide, which ran from just inside the doorway in the west wall and which emptied into a sump near the east wall. The sump contained rubble and gravel, presumably to aid drainage, and was sealed with sandstone slabs which had slumped downwards. These slabs formed part of a floor surface which extended over an area measuring approximately 4.5 m by 2.0 m at the north end of the room: it was made up of large flags, rounded cobbles and some bricks. The flags continued sporadically along the east and south sides of the chamber as far as the well, forming a slightly raised platform, 0.7 m wide, adjacent to the east wall.

Lenses of clay and silt lying on the capped drain and the stone floor may have been deposited whilst the well was in use; whereas the more uniform layer of silty loam that covered those materials, as well as most of the rest of the floor, probably post-dates the abandonment of the tower as a principal residence. Several post-holes which cut into this material and through the underlying features may date from a time when the ground floor was used as a store or animal house, perhaps in association with a nearby farm. Recently deposited rubble, loam, coal waste and animal dung sealed those features.

A brief examination was made of the small, mural cellar within the west wall of the tower. Its doorway was 1.05 m wide and had a raised threshold which led into a low, vaulted chamber which measured 3.1 m north/south by 1.85 m wide. In the west wall were two gun ports, each sealed with bricks. Its floor, which



ILLUS 4 The interior of the tower at ground-floor level, viewed from the south; the capped drain, in the centre foreground, leads from the well towards the paved and cobbled floor at the north end of the principal chamber

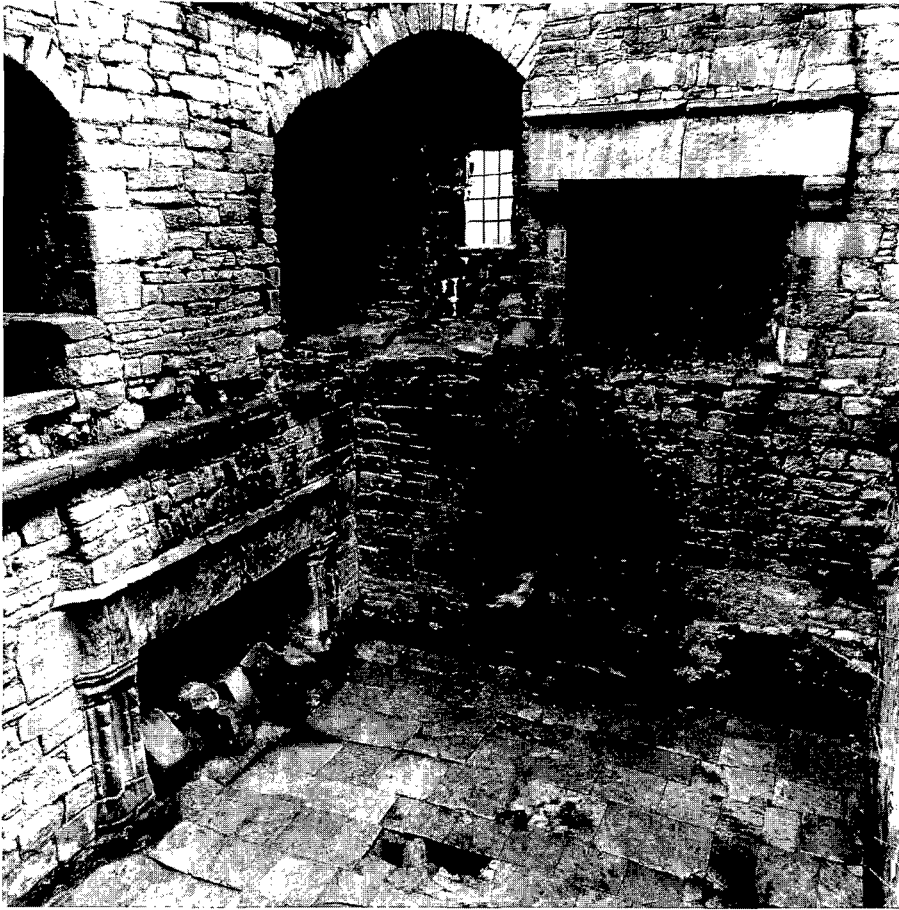
was missing from the north-west corner of the chamber, consisted mainly of squared, sandstone flags packed with small fragments of stone and brick. The flags were laid on a bed of hard-packed, mortared rubble.

#### THE ENTRESOL LEVEL

There was only time to examine very briefly the kitchen contained within the west wall of the tower at this level. Excavation involved no more than the removal of accumulated masonry debris and dust. Entered directly from the stair in the north-west corner of the tower, the kitchen consisted of a long, narrow room with a fireplace, wider than the room itself, built into its south wall. At some stage the fireplace had been blocked off by the insertion of a domed oven. At the same time, a brick floor, which was almost intact, had been laid over the rest of the room. In the east wall, at waist height, were two cupboards.

#### FIRST-FLOOR LEVEL (ILLUS 5)

Rubble, derived from the partly collapsed gables of the tower, was removed to reveal an almost intact flagged floor. The garderobe chamber in the north wall, the window recess and a private chamber set into the thickness of the west wall were also cleaned out.



ILLUS 5 The first and second storeys of the tower, viewed from the south-west; the hall fireplace is on the left

### *The hall*

The hall measured 8.1 m north/south by 5.7 m wide. It was floored with neatly cut sandstone flags, aligned east/west but of varying sizes. These were laid on a thick bed of red sand which overlay mortared rubble used to level up the room over the top of the vault below. On the east and west sides of the room, where the rubble infill was at its deepest, the floor had subsided slightly in places. No floor surface survived within the deep window embrasure in the west wall; in places the extrados of the underlying vault was exposed.

### *The garderobe chamber*

The flat-roofed garderobe chamber measured only 3.0 m by 1.1 m. There was no trace of fixtures or fittings around the garderobe itself; simply a hole in the floor towards the east end of the chamber which connected with the chute from the floor above. A small cupboard had been built into the wall in the south-east corner of the room. There were slight traces of a smooth mortar surface at the west end of the chamber whereas most of the floor area comprised uneven, mortared rubble.

*The private chamber*

The private chamber, which was entered from the window embrasure in the west wall, was also cleared of debris. The extrados of the underlying vault, which was aligned north/south, was exposed along the centre of this room. Red sand, identical to that below the hall floor, appeared to have been used to bed the floor in this chamber, although no flags survived *in situ*. Three small post-holes, each measuring approximately 0.25 m in diameter and 0.15 m deep, and a shallow slot, 1.0 m long by 0.1 m wide and 0.1 m deep, were aligned alongside the east wall. These may have been associated with internal wall fittings or with scaffolding, perhaps inserted to facilitate repair work.

Overlying the sub-floor deposits were several patches of burning and associated sherds of recent pottery, evidence of post-abandonment fires. A series of grooves and sockets set into all of the walls of this chamber are thought to indicate that this room had been wood-panelled. In the east wall was a window which looked into the hall: it had two iron hinges on its north side and the remains of an iron fastener on its south jamb. Two sockets, 1.06 m above threshold level in the entrance, retained fragments of wood from a door frame.

## EXCAVATION AGAINST THE NORTH WALL OF THE TOWER (ILLUS 6 &amp; 7)

Measuring 5.5 m north/south by 2.0 m wide, this trench was opened mid-way along the outer face of the north wall in an attempt to locate the outlet of the latrine chute leading from the tower's first- and second-floor levels. It was also hoped that this investigation would help clarify the nature of two outbuildings apparently built against this side of the tower. On the evidence of a row of small sockets cut into the wall along most of its length, one of these structures was a lean-to building; the other structure appeared to have been a much smaller, gabled building whose outline could still be discerned in 1984. It is not clear how these two structures were related chronologically.

For some unknown reason, the area of investigation had been badly disturbed in recent times by a large, irregular cut which extended beyond the north, east and west sides of the trench. This earlier excavation had cut through deep deposits of overburden to a maximum depth of 2 m at the northern end of the trench where the silty clay of the subsoil had been exposed. The resulting depression had been backfilled with rubble, bricks, coal, ash and loam containing artefacts of very recent dates. Removal of these modern deposits from against the tower exposed the outlet for the latrine. The opening was 1.05 m wide and 0.4 m high with a fairly flat arch built of four large, sandstone voussoirs.

The earliest features to be uncovered within this trench were what appeared to be three post-holes, each 0.2 m in diameter and 0.1 m deep, forming a short line along the east side of the trench. They were exposed 1.6 m below ground surface; although it was not clear from what level they had been cut. To the west of the post-holes, and also cut into the subsoil, was a box drain, 0.3 m high internally and constructed of crude sandstone flags which were bonded and sealed with yellow clay. The drain continued beyond the northern limit of the trench. About 3 m from the north end of the trench the drain bifurcated, its western branch running towards the latrine outlet and its other arm seemingly aiming for the north-east corner of the tower.

It was not clear whether the drain had been intended to remove waste from the latrine outlet, but at some undetermined stage it went out of use when a cobbled surface was laid over it. These cobbles consisted mostly of rounded pebbles, up to 0.3 m across, bedded in a layer of fine, pale yellow sand with sandstone chips, 0.3 m deep. It was not possible to trace the full extent of the cobbling: it appeared to have been truncated by the recent intrusion; and excavation was incomplete adjacent to the tower. At some stage the metallised surface was raised when loam and sand were used to bed another set of similar cobbles. This surface was also truncated on its north side although it was well defined on its east. The layer of soil separating the two sets of cobbles extended into the latrine outlet, effectively blocking it. Sealing the upper cobbled surface and extending beyond its eastern limit was a thin, compact, spread of mortar. If both sets





ILLUS 6 The cobbled surfaces outside the latrine outlet on the north side of the tower; viewed from the north

of cobbles and the mortar spread were floor surfaces, it seems likely that they were associated with different structures, or a structure which was rebuilt.

Overlying these remnant floor surfaces were deposits of brick and sandstone rubble 1.25 m deep. These materials were sealed by a thin layer of topsoil which now supports fairly dense vegetation.

#### THE BARMKIN BOUNDARY

Some 25 m north of the tower the ground dips steeply into a narrow gorge, running east/west. Visible among the roots and undergrowth at the top of the gorge was a masonry wall set into the sloping bank. A stretch of the stonework, 1.5 m wide, was cleared and a trench measuring 2.5 m long was opened from its south side. The drystone rubble walling, set against the embankment at an angle of about 30° from the vertical, survived to a height of 2 m and was 0.75 m thick. This is interpreted as a retaining wall, built to stabilise the embankment, rather than the barmkin wall. However, about 1 m from the south face of the wall, and parallel to it, was a band of sandstone rubble, 0.75 m wide; this may be the surviving foundations of the barmkin wall, but it was not possible to investigate this further.

At the south end of the trench were the remnants of a crude, stone-capped and brick-sided drain, 0.2 m square internally. It was not clear whether this drain was contemporary with the tower although its location and north/south alignment suggest that it was.

#### FINDS

Many of the artefacts, such as bottle glass and iron objects, retrieved during the removal of overburden, were of relatively recent origin and were not retained.



ILLUS 7 The north face of the tower showing timber sockets associated with at least one building formerly set against it

Of the 52 sherds of pottery retained from the excavation, 34 were Grey Reduced Ware, frequently covered with a green glaze. A few sherds appeared to be from jugs although it was not possible to be more specific. The material is probably of local origin although its precise source is uncertain (perhaps Throsk or Stenhouse). By the same token, it is not possible to suggest a more accurate date than 15th–17th century. Two sherds of Midlands black-glazed ware (1670–1810) were found, one within the upper fill of the overflow drain from the ground-floor well, the other from a recent deposit. Two sherds of Staffordshire slipware (1600–1800) were found in post-abandonment deposits in the ground floor of the tower. Six sherds of Staffordshire white, salt-glazed stoneware jars (1720–70) were retrieved from a post-abandonment deposit in the ground floor of the tower. One sherd of Staffordshire manganese-glazed, mottled ware (1700–1800) was found within the infill of the well in the ground floor.

## DISCUSSION

It is not clear whether waste was disposed of by means of the drain that appeared to run from the latrine outlet in the north wall of the tower. Its location certainly suggests such a function whereas its internal dimensions might argue otherwise. However, the discharge of waste may have been helped by flushing water down the chute, augmented by water flowing down the other arm of the drain, thought to have led from the sump in the north-east corner of the ground floor. The ultimate destination of the waste is unknown; perhaps it debouched into the ravine to the west of the tower.

The two cobbled surfaces (and perhaps the overlying mortar spread) seem to have been associated with the structures whose roof lines can be traced on the outside of the tower. Both

sets of cobbles appear to have been laid down after the abandonment of the latrine chute and, by inference, the first floor hall of the tower and the storey above it. It is not immediately obvious why a lean-to structure of some substance (at least on the evidence of its roof timber sockets) should be built against the tower (illus 7), while its main chambers lay empty. It is possible that after 1631 the ground floor of the tower became an animal house or a store, perhaps associated with a nearby farm, whereas the building's upper storeys, being less than ideal for such roles, were abandoned.

#### ACKNOWLEDGEMENTS

The authors would like to thank Noel Fojut of Historic Scotland who initiated the investigation and the owners of Sauchie Tower, Messrs Robert Heath and Alexander Mair, who allowed it to take place. We are also grateful to Richard Fawcett and Christopher Tabraham for taking the time to read this report. Thanks are also due to Mike Spearman and Alan Radley who assisted during the excavation; Naomi Crowley who analysed the pottery; and Jane Siddall who was responsible for the drawings. Alan Radley also helped compile the site archive which is deposited with the National Monuments Record of Scotland.

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*This paper is published with the aid of a grant from Historic Scotland*