Excavations at Niddry Castle, West Lothian, 1986–90

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ABSTRACT

Excavations and limited architectural analyses carried out in 1986–90 revealed that Niddry Castle developed from a manor of two timber buildings, through a stone and timber phase, to a late medieval tower house with turreted barmkin and provision for early artillery. It was adapted and altered by the Setons during the 16th and 17th centuries, while under the Hopes partial demolition preceded limited reoccupation, followed by abandonment by the late 19th century. Evidence of architectural detail, including a possible oratory and fragments of a Scottish Renaissance extension were revealed. Remains of early gardens were identified. Significant finds included floor tile, some in situ or in primary deposits, door and furniture fittings, part of a pistol, spurs and exotic vessel glass. This evidence contrasted strongly with the essentially domestic nature of the pottery assemblage. Previously Niddry Castle has been classed as a simple, one-period structure, but excavation has shown glimpses of structural complexity and affluence, particularly from the mid 16th to the early 18th centuries. Funding for post-excavation work and publication were provided by Historic Scotland and St Andrews Heritage Services.

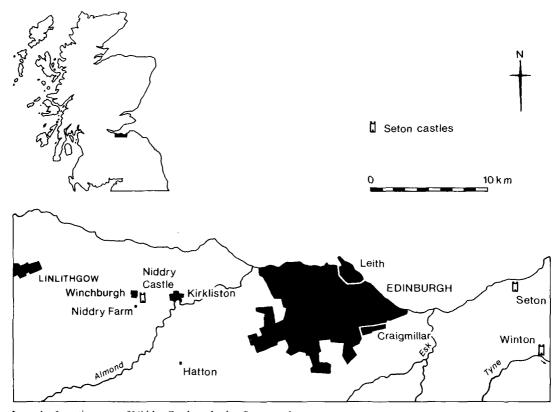
INTRODUCTION

The restoration of the ruined Seton tower house of Niddry was initiated in 1986 by the owner, Peter Wright, with a Manpower Services Commission labour force which was directed on-site by Christopher Aliaga-Kelly. Limited architectural analyses and recording were carried out, as well as excavation of the basement and extensive deposits around the tower house. The final stages of the project, including preparation for publication, were funded by Historic Scotland and St Andrews Heritage Services.

GEOLOGY AND TOPOGRAPHY

Niddry Castle (NGR: NT 095 734) occupies the west end of a ridge at nearly 70 m OD, lying south of Niddry Burn, 1 km south of the village of Winchburgh in West Lothian (illus 1 & 2). The ridge is a glacially eroded boss of Carboniferous lava agglomerate (Mitchell & Mykura 1962), with some clay till extending ESE.

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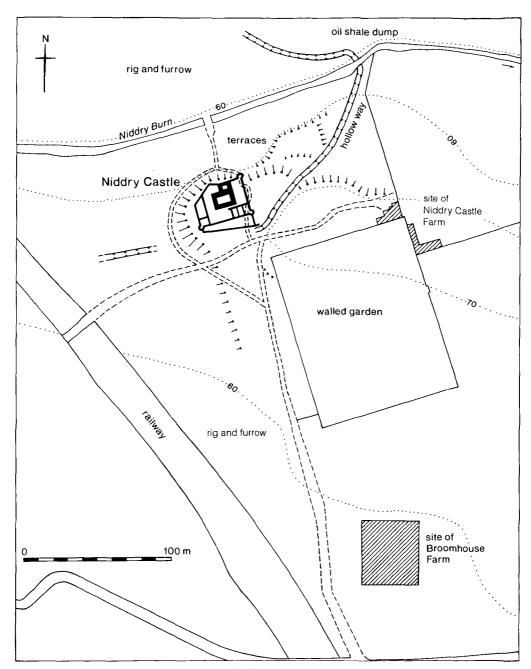
ILLUS 1 Location map of Niddry Castle and other Seton castles

The castle was built on a shelf, rising slightly to the east (illus 3). The brittle nature of the agglomerate bedrock facilitated general scarping of the site and the cutting of post-holes or foundation trenches, and up to 1 m of bedrock was removed prior to construction of the tower house itself. This provided level surfaces, but truncated earlier features, so that the few surviving remains of the earliest phases were recorded by excavation (Phases 1–3, below).

The lower ground surrounding the ridge is poorly drained, limiting access to only two directions. From the south-west there is access from the route between Kirkliston and Niddry farm; from the north-east a route leaves the Edinburgh/Linlithgow road east of Winchburgh and descends to cross the Niddry Burn 100 m east of the tower house, approaching the site by a hollow-way from the ENE.

PLACE-NAMES

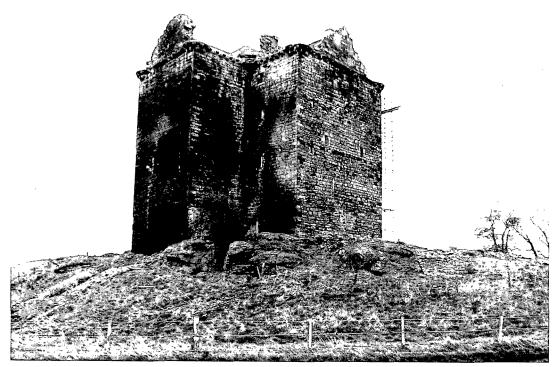
Niddry derives from two Brittonic or Old Welsh words *newydd* and *tref*, meaning 'new settlement' (Macdonald 1941, 43; Nicolaisen 1976, 169). Winchburgh comes from the Old English words *uincel* and *burh*, meaning 'bend [of a watercourse] settlement' (Macdonald 1941, 44). Archaeological evidence for early settlement can be seen on aerial photographs of the area, but none has been tested by excavation and there is no obvious continuity between earlier sites and the tower house at Niddry.



ILLUS 2 Niddry Castle and its environs. (Based on the Ordnance Survey map © Crown copyright)

DOCUMENTARY BACKGROUND

The earliest reference to Niddry is in William I's confirmation charter to Alexander Seton, of 1179, of an earlier grant of 'Setune Wintune Wincelburgh' (Barrow & Scott 1971, no 2000). A



ILLUS 3 View of the tower house from the north-west

charter of James I, of 1426, refers to 'George Seton, Lord [of Parliament] and Lord of the barony of Winchburgh' (Reg Mag Sig 2, 8, no 42).

As the fortunes of the Setons changed Niddry was also greatly affected. In 1499, the second Lord Seton was required to hand over to royal wardship 'the toun of Winchburgh', because he had failed to repair the royal ship *The Egil*, as he had promised (Seton 1896, 124). This concession appears to have included the castle or manor since Maitland (1829, 41; RSS 4, 172) in his history of the Setons noted that the third Lord Seton redeemed 'the toun of Winchburgh, the house and a great part of the lands of Westnetherie'. This involved payment of 1000 merks to James IV by 1506 (Dickson 1910, 2). Maitland (1829, 41) also noted that the fourth Lord Seton repaired and built a great part of the house before his death in 1549. In 1539, James V titled the lands 'the free barony of West Nudry with the castle, tower and fortalice of West Nudry ordained as the principal manor thereof' (Reg Mag Sig 3, 449, no 2001).

On the night of 2 May 1568, George, fifth Lord Seton, led Mary Queen of Scots to Niddry Castle for rest and refreshment (Thompson 1825, 24). This episode — fictionalized by Sir Walter Scott in Chapter 36 of *The Abbot* (1820) — followed her escape from Loch Leven Castle and preceded her travelling to Hamilton Palace. For his actions, Seton was formally deprived of his lands and title by a decree of July 1568, which also mentioned a 'James Young, in Winchburgh' (RSS 6, 73, no 340).

Lord Seton returned to Scotland before 1572 and used Niddry as part of the supply route to Edinburgh Castle, which was then held by Kirkcaldy of Grange, in the name of Mary Queen of Scots. This led the Privy Council to note, on 20 June 1572, that the goods of His Majesty's subjects were being used improperly, as some were being taken to the 'place of Niddry' (Burton

1878, 147). Consequently, in the same year, Niddry was the subject of two unsuccessful sieges by the forces of the Regent, the Earl of Morton (Thompson 1825, 105; Mackay 1899, 281). Seton survived the capture of Edinburgh Castle and was able to hold the wedding of his daughter Margaret to Claude Hamilton, Commendator of Paisley Abbey, at Niddry Castle on 4 August 1574 (Seton 1896, 201).

James VI & I gave the Setons the title of Earls of Winton in 1600 (Reg Mag Sig 6, 691, no 1904), but because they were on the Royalist side during the Civil War they were soon to lose their lands and possessions (Seton 1896, 204). The English army was quartered in and around Niddry Castle on the night of 14 September 1650, although Cromwell was not present (Gaunt 1987, 208).

The Setons regained their possessions with the Restoration of 1660, and subsequently sold Niddry and its lands to the Hopes of Craigiehall, Fife, in 1676. The Hopes evidently developed the surrounding lands, as Sibbald (1720, 14) could describe the castle as 'a large Tower with low buildings joined to it and convenient Office Houses, surrounded with large Parks, and a stately Avenue from the East, all well planted'. The Hopes seem to have moved to Hopetoun House as their principal residence in 1702/3, although it was not completed until 1710 (RCAHMS 1929, 121). Thereafter Niddry was lived in by factors, secretaries or chamberlains of the Hopes (Crichton 1997).

CARTOGRAPHIC EVIDENCE

The earliest known depiction of Niddry Castle is on Blaeu's map of Scotland (1654) which shows it as a symbol surrounded by an enclosure of trees. The first detailed map of the Hopetoun lands (Lesslie 1759) depicted the castle as a plain square, with 'kennels' on the far side of the burn, a walled garden south of the castle, and an orchard in the sheltered ground to the east. Roy's map (1755) also shows the castle as a plain square. It was accompanied by the legend 'in ruins' on Armstrong's county map (1773). Forrest's map (1818) shows a ruined tower house and a turreted barmkin wall, and identifies a building on the north side of the Niddry Burn as 'Burnside'. The first edition of the Ordnance Survey (1854) shows lines of planting in the walled garden, but these do not appear on the second edition (1893).

LANDSCAPING AND GARDENS

One of the earliest books about gardening in Britain, The Scottish Gard'ner, was published in Edinburgh in 1683. The author was John Reid, who was born at Niddry Castle, the son and grandson of the castle gardener (Hope 1988). Though no details are recorded of the gardens attached to the castle during Reid's life (1656-1723), his family background attests that there were managed gardens at Niddry as early as the mid-16th century. A charter of 1506 refers to 'the orchart of Winchburgh' (Reg Mag Sig 2, 637-8, no 2995) and another of 1548 records 'orchards, enclosed gardens within and outside, protected by the defences (of the castle)' (Reg Mag Sig 4, 54-5, no 222).

Gardening appears to have been a concern of the Lords of Seton. There is a record of a 'garding' at Seton Palace, East Lothian, in 1478 (Seton 1896, 103); and Maitland (1829, 52) recorded a yard and orchard, along with the garden, at Seton in 1560. Hynd's observation (1984, 269) that 'Scotland was a major exponent of gardening, particularly throughout the 17th century, with origins well-rooted in the 16th century' is clearly reflected at Niddry too.

THE EXCAVATION

The excavation consisted primarily of removing the rubble and other debris surrounding the castle, as part of the restoration work. Limited architectural recording was carried out in association with the archaeological work; though this was not undertaken on a systematic basis, a great deal of evidence was recorded for building alterations. The excavation was extensive, both in the basement of the tower house and in its immediate environs, but with few targeted trenches designed to interpret the stratigraphy. On the south a service trench cut through a cobbled yard and a narrow trench was cut through a garde-robe midden at the base of the north wall of the tower. Elsewhere, the overburden was removed to bedrock, including the removal of rubble and soil overlying the remains of previously unsuspected barmkin towers.

The incidence of deeply stratified features from earlier phases was limited by later scarping and levelling. A cobbled yard was uncovered but was not excavated, so that the only information on deeper, underlying features derives from the service trench cut through it. The ultimate demolition of the barmkin wall and associated structures involved a mixture of loss and preservation. For instance, building remains within the west barmkin were almost entirely removed, yet the south-west barmkin turret and nearby walling were preserved within the rubble demolition and levelling fills to a height of up to 2 m.

Although few datable finds came from stratified contexts, six phases of building and occupation could be identified on largely stratigraphic grounds, from earlier medieval structures to post-abandonment sediments, with the main occupation occurring in Phases 4 and 5.

PHASE 1 (ILLUS 4)

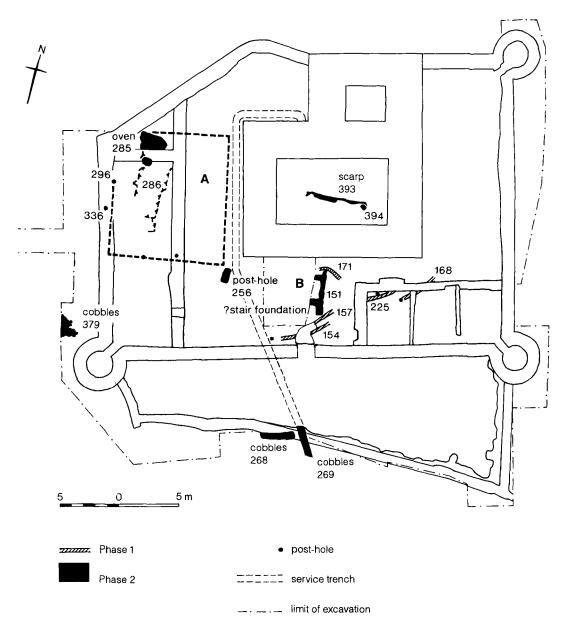
Five short, curvilinear, rock-cut foundation trenches or ditches (F157, F154, F168, F171 & F225), with possibly associated post-holes, were recorded in the south barmkin. None had identifiable terminals and all were badly eroded. There were no contemporary floor levels or finds. Since these trenches were not on a slope, they are unlikely to have been drains, but they could be the slight traces of circular wooden structures.

PHASE 2 (ILLUS 4)

Slight traces of two groups of structural features (Structures A & B) were identified. These were on similar alignments to one another, though differing from that of the later tower house. Remnants of paving or cobbling are also described in this phase.

Timber enclosure (Structure A) This lay within the north-west quarter of the barmkin, where later activity had cut into and disturbed remains of the early features. It was severely truncated, and was recognisable only as an enclosure, approximately 11 m square, defined by more than 20 post- or stake-holes (eg F296 & F336). These enclosed a rock-cut hollow (F286) which was 7 m long by 4.6 m wide). An oven recess (F285) with traces of burning in its base was located at the north end of the rock-cut hollow and, at its west end, fragments of two courses of dry-stone walling indicated an oven of 1 m diameter. There were no surviving floor-levels or associated finds recorded in this structure.

Sill-beam and posts (Structure B) This was represented by various features in the central area of the site which were partly overlain by the later tower house. Though these remains are slight, enough could be recorded within the limited areas of excavation to show that they were all of an early phase, probably



ILLUS 4 Phases 1 and 2: early timber buildings

contemporary with Structure A, and that they might represent more than one structure. Two post-holes (F256 & F336) may have held structural uprights. A linear scarp or possible wall footing (F393) was cut into bedrock within the main part of the tower house basement. A group of three sill-beam trenches (F151), up to 0.44 m wide and 0.2 m deep, enclosed a space 1.5 m wide, but which extended beyond the excavated area. This resembled a feature at Clifton Hall, Cumbria (Fairclough 1980, 52), which was identified as a stair foundation.

Paving remnants in this phase included cobbles or flagstones (F379) outwith the barmkin on the west side; cobbling (F269) revealed within the moden service trench at the south side and a second area of cobbling (F268) in the same area.

Two sherds of pottery (SF3263 & SF3282), dated to the 12th-14th centuries, may have been deposited during this phase. They had been pressed into a soil layer (F377) which was cut by the later walling of a mortared building (Phase 3: F332) within the west barmkin, and were overlain by a soil layer ascribed to a later phase (Phase 3).

PHASE 3 (ILLUS 5)

Phase 3 included the remains of a rectangular stone building (Structure C1) with an L-shaped extension at its south end; a well (F403); and features representing a timber building (Structure C2) which were found within the tower house basement. Several minor post-holes and rock-cut features were also recorded in this phase.

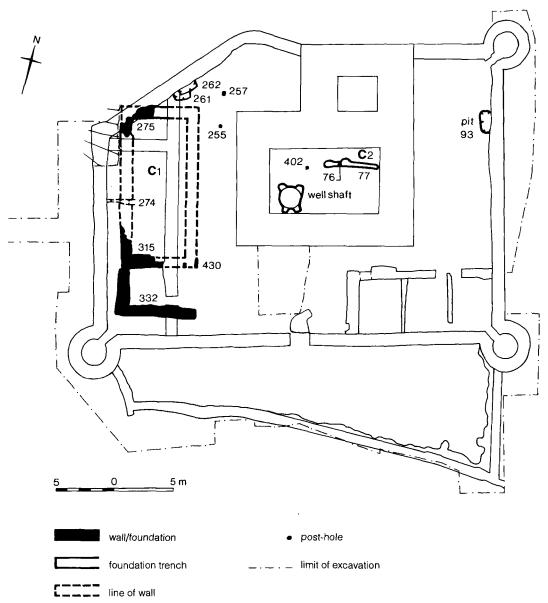
Stone hall (Structure C1) This was defined by wall remnants forming a south-west corner (F315), associated stretches of foundation trench (F275), and a mortar-lined, rock-cut hollow (F430) defining its south-east corner. The surviving masonry in the south-west corner was built of crudely dressed, dark grey, sandstone blocks, clay bonded, with quoins of finely smoothed, pale buff sandstone. A possible drain cut (F312: not illustrated) traversed the assumed west wall-line of Structure C1, but was truncated by the later scarping beyond the barmkin. The remnant foundation trench (F275) which defined part of the north wall had a surviving butt end, possibly indicating a gap for a door, c 1.8m from the north-west corner. Aligned with the proposed doorway were two shallow, sub-rectangular hollows (F261 & F262) cut into the slope to form steps 1.2 m wide. These were also partly infilled by the construction of the later barmkin wall. Overall, these features formed a groundplan of north/south orientation, 13.5 m long by 5.2 m wide, with walls 0.85 m thick.

An extension to Structure C1, in the form of an L-shaped wall (F332), abutted the building at the south end. This was clay bonded, with mortar pointing on the outer wall faces. It survived to 1.5 m in height; the west arm was 3.8 m long and from 0.7 to 1.2 m wide, while the south arm was 7 m long and between 0.9 and 1m wide.

Sill-beam and posts (Structure C2) Possible building remnants within the basement of the tower house comprised a sill-beam trench (F77), 0.2 m wide by 4 m long, and two post-holes (F76 & F402).

Well shaft A well shaft was identified at the centre of the site, within the south-west corner of the tower house, and partly overlain by its south wall. It was 1.8 m in diameter by c 7 m deep. On the lip were four subrectangular post-hole cuts (0.26-0.34 m wide) arranged in opposing pairs on the north and south sides; these were possibly for the well superstructure (illus 6). Several pieces of flat, white sandstone, found in the fill of the well, appear to be from the curved edge at its top.

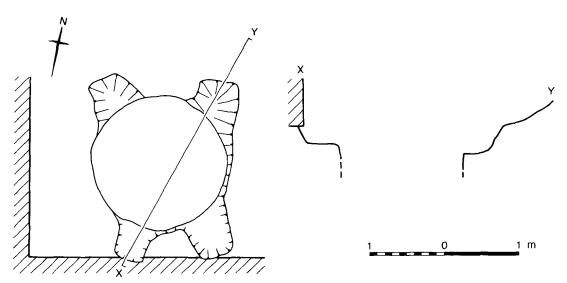
Other features A sub-rectangular pit (F93) was recorded in the east barmkin, where it was partly overlain by the barmkin wall. This was 1.4 m long by 0.9 m wide and 1 m deep. It was backfilled with a mixture of stoney rubble, butchery debris and other midden material, including a sherd of Langerwehe ware (SF2441) of 14th- or 15th-century date (Hurst, pers comm). A possible foundation remnant (F274) traversed the west wall-line of Structure C1, but its relationship with that building is unclear (it was infilled by the construction of the later barmkin wall). Two small post-holes (F255 & F257) north-east of Structure C1 may also belong to this phase.



ILLUS 5 Phase 3: the well, stone hall and possible timber building

PHASE 4 (ILLUS 7 & 8)

Phase 4 comprises all the major elements of the tower-house and barmkin, including the L-plan tower house itself (Structure D1), the barmkin wall (Structure D2) with its corner turrets (Structures D3, D4 & D5), a stone building within the south barmkin (Structure E), a second stone building in the west barmkin (Structure F), and traces of a timber building within the north end of the east barmkin (Structure G). The walls of the constituent structures abutted each other



ILLUS 6 Plan and section of the well, with two post-holes partly overlain by the tower house wall

to form a coherent whole; the basic plan was of a type typical of Scottish castles of the 15th and 16th centuries (Tabraham 1988, 268).

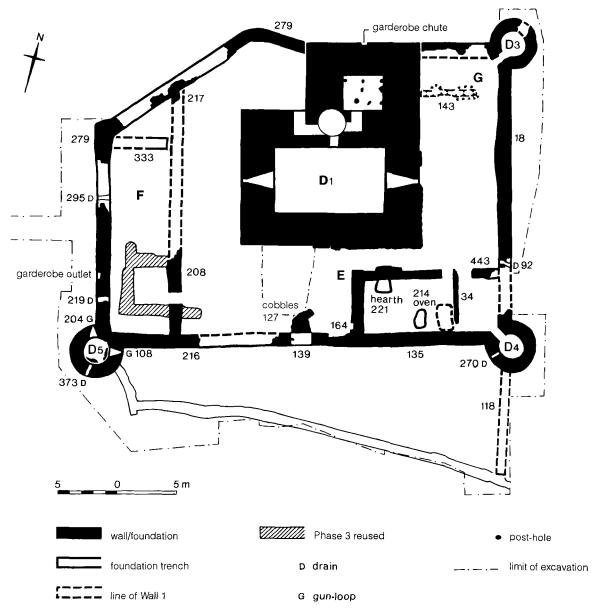
Tower house (Structure D1) This was an L-shaped, four-storey structure of coursed sandstone with ashlar quoins, consisting of a main block (17.2 m east/west by 11.2 m north/south overal) and a north wing (9.2 m east/west by 6 m north/south), with a common wall thickness of c 3 m. The entrance was in the north wall at the re-entrant angle, providing direct access to the basement, with a newel stair immediately to the east. Originally, stone vaults supported the first storey of the main wing, as well as the first, second and fifth storeys of the north wing, while the other floors were timber. However, all flooring had collapsed or had been removed, prior to excavation, except in the north wing, where the first floor survived over vaulting.

Within the first storey, the Great Hall had a west fireplace, an intramural chamber in the north-west angle, and a socket in the south wall indicating the position of a partition 3.9 m from the south-east corner. The kitchen, with a large west fireplace and a slop basin in the west window, was on the same storey. Entresol levels were below the first storey vaults of both parts of the building, while a door from the staircase allowed direct access to the north wing. This had two windows and access to the garderobe-chute, for which the shaft ran the full height of the north wall. The first storey was approached by an intra-mural corridor running south of the newel stair. A laver with an ogee-decorated lintel was set in the north wall of the corridor, south of the door to the north wing.

The second storey of the main block included fireplaces in the west and the south wall and an intramural chamber in the north-west angle. In a blocked east window an oratory (illus 9) was identified, which had a recess with a basin in the south wall, and slight traces of a stone altar table, which had been destroyed. The rubble fill in the blocked east window included two fragments of Type 2 tiles (see 'Tiles' by Aliaga-Kelly, below). Several Type 1 tiles remained *in situ* in the recess for the west window of the north wing. This also had a fireplace in the east wall and recesses in the north.

The third storey of the main block had a fireplace with lintel and jambs decorated by edge mouldings of Zeune's (1992, 27) Type F3-H. The north wing, east fireplace and west walls had all been reduced in thickness in order to expand the floor area.

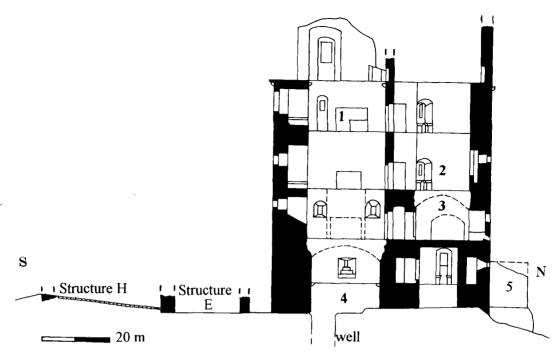
Although later alterations had modified much of the fourth, roof storey, the east and west walls of a penthouse could still be identified, along with corbelling, which supported five corner rounds or bartizans.



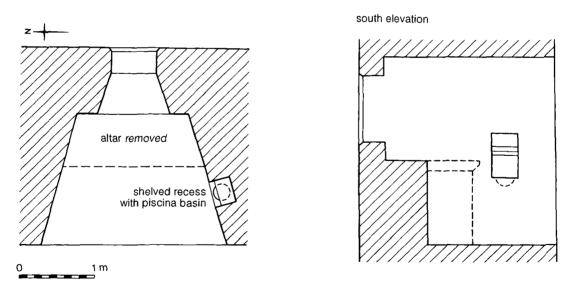
ILLUS 7 Phase 4: the tower house and barmkin

Barmkin (Structure D2) The barmkin wall had largely been demolished and removed, but parts of the circuit survived (F18, F135, F216 & F279), as did the culverts (F92, F270 & F373), the remains of a gateway through the south wall (F139), an area of flag-stones (F127) within the gate, and two gun loops through the south-west turret (F108 & F204).

The barmkin enclosed an area measuring 23.7 m east/west by (variously) 22.8–24.2 m north/east It was of a single build, with walls of buff sandstone rubble, 1.2–1.3 m thick, incorporating both lava and dark grey sandstone. A buff sandstone lintel or window sill had been reused in the base course at the north-west angle (F279).



ILLUS 8 Cross section through the tower house (viewed from east)



ILLUS 9 The remains of the chapel or oratory within the east window of the south wall, on the second storey

The remains of the gateway (F139) in the south wall consisted of a worn threshold stone with a hole for a door swivel on the west side. Although nothing survived of the opposite or east side, the paving (F127) within the barmkin on the north side of the gateway gives an indication of its width. This extended over an area of 1.3–2.1 m north/south by 0.8–1.2 m east/west, indicating a gateway c 1 m wide or more.

The turrets were all bonded with the barmkin wall. They varied in size between 4 m and 4.5 m in diameter. The south-west turret had two integral gun ports of the 'inverted keyhole' type, one directed to the east and the other to the north.

Five culverts pierced the barmkin wall. These were from 0.2 m to 0.4 m wide and drained through the east, the south-east and the south-west turrets (F92, F270 & F373, respectively; the remaining two culverts are associated with Structure F, below). Culvert F270 was built 0.23 m above the bedrock and appears to have related to a surface which had been scarped away. Sherds of an almost complete pitcher (SF2260, illus 17) were found in the sandy soil, against the outer wall face, immediately north of the outlet of this culvert.

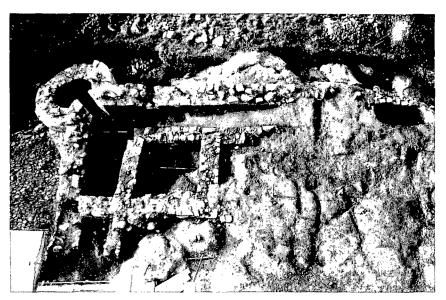
South courtyard building (Structure E) This was a stone building which was built within the south-east corner of the barmkin. The north and west walls (F133) were from 0.35 m to 1.02 m thick, and formed a ground-plan 11 m east/west by 4.5 m north/south internally. The building initially comprised two rooms; the east room was 3.4 m east/west and the west room was 7.2m east/west. Access to these was via two doorways in the north wall (F443 & F444), both 0.45 m wide with thresholds c 0.15 m above the bedrock. The doorways were divided by the north/south partition wall (F34); this, in turn, featured a doorway 0.62 m wide at its junction with the south barmkin wall which gave access between the two rooms.

Within the west room, against the south wall, a clay oven (F214) had been raised on a flagged stone base (F197) measuring 1.6 m by 1.3 m. Immediately east of this a large, rectangular, rock-cut pit (F165) measured 1.3 m by 1.8 m by 0.3m deep. A crudely mortared hearth setting (F221), 1.5 m wide by 1 m long, abutted the inner face of the north wall at the point where its outer face was expanded (by 0.49 m to 1.7 m), possibly to carry a fireplace and chimney on an upper storey. A recess in the outer face of the west wall (F164), 0.4–0.7 m wide by 0.2 m deep, was situated 0.35 m north of the angle formed with the south barmkin wall.

West courtyard building (Structure F; illus 10) This structure within the west barmkin was appended on the south and west barmkin walls to form a building with a maximum internal width of 5.2 m and length of 19.4 m. The surviving wall remnants (F208 & F217) were up to 1.2 m thick. A doorway near the south end gave access to the courtyard; there was also access to the south-west turret (Structure D5) at this level. Two slab-lined culverts (F219 & F295) and a garderobe chute outlet (F294) issued through the west barmkin wall. The culverts were 0.3 m wide; they issued above the bedrock surface and, again, evidently related to a destroyed floor level. The garderobe chute (0.6m wide) is clear evidence of an upper storey with domestic accommodation. Parts of the L-shaped extension to the earlier Structure C1 (Phase 3) were still upstanding at this time and were incorporated in the floor of the present building. An east/west foundation trench (F333) was recorded within the north end of the building. This may represent the partition wall for a small chamber, but its relationship to Structure F is unclear. All other related features and floor levels had been destroyed.

Sill-beam (Structure G) This survived only as a sill-beam trench (F143) at the north end of the east barmkin, 4 m long, 0.53 m wide and up to 0.17 m deep. This was secondary to bedrock scarping in this area to a depth of over 0.9 m. The trench may have held substantial structural timbers, perhaps part of Structure C2.

Other features Several post-holes were recorded in the bedrock floor of the north wing of the tower house. These were up to 0.34 m wide by 0.25 m deep. A robber trench (F118) for a stone wall abutted the south face of the south-east turret. This was 0.9 m wide and extended south over a span of 8.2 m. It appears to have formed part of the enclosure for a later cobbled outer yard (Phase 5, below), but as it was not keyed to the remaining part of the enclosure wall, at the south-east corner, the robbed sector described here may have been built during Phase 4.



ILLUS 10 Structure F in the west barmkin, its floor partly formed by a bedrock exposure

PHASE 5 (ILLUS 11 & 12)

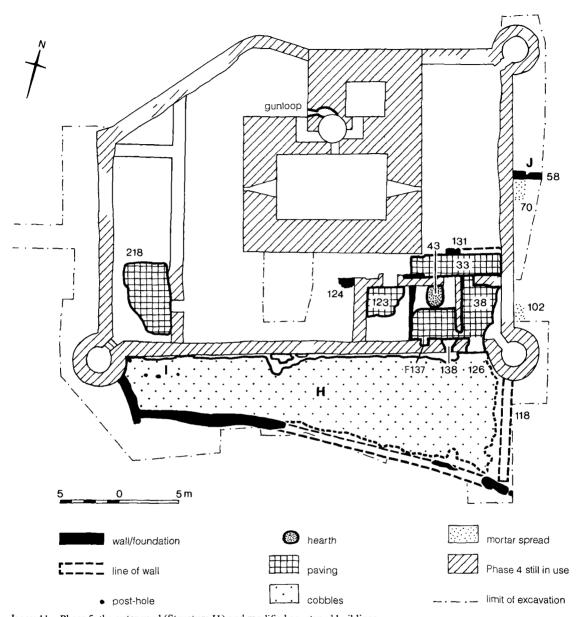
Phase 5a was a period of alterations and additions by the Setons to the tower house and courtyard buildings (Structures E & F). Drastic changes followed in Phase 5b, when the Hopes took over, including reduction of the barmkin wall to a uniform height and demolition of the courtyard buildings (Structures E & F). The additions to the tower house, including the insertion of an elaborate double dormer window (illus 13 & 32), were evidently intended to improve and enlarge it on a grand scale. The evidence comprised in situ stonework as well as architectural stone and fragments of furnishing which were found among the demolition debris. In the associated redistribution and levelling work, objects of metal, glass, pottery and clay pipe were sealed. These ranged in date from the 16th to the late 17th century.

Phase 5a: alterations by the Setons

The tower house Alterations to the tower included a new door which was inserted into the main entrance, with a second lintel below the original, to reduce the height. Both this lintel and the new jambs had roll-mouldings. At the same time, and integral with the build, a wide-splayed gun-loop, 0.4m wide and 1.8 m high, was inserted into the adjacent west wall of the north wing, while the early window above this was blocked.

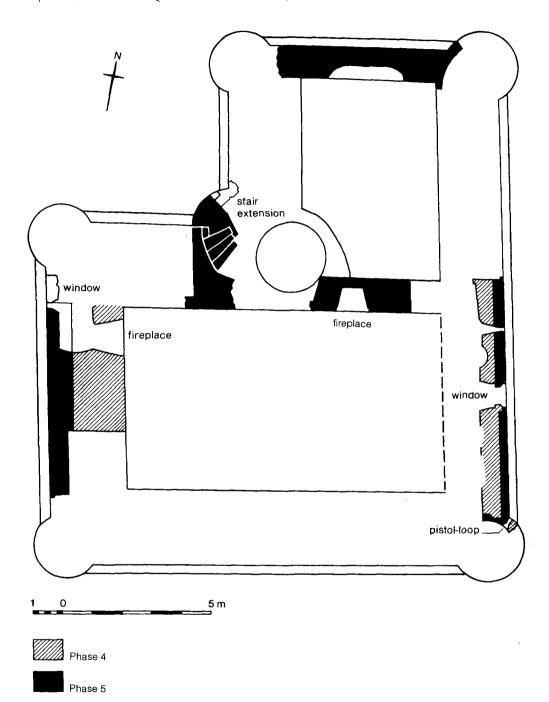
Access was created between the Great Hall and the stair by a secondary door. An oven (an irregular hollow 1.0–1.4 m wide) was inserted within a corner of the kitchen fireplace and a large window was cut through the fireplace in the south wall of the second storey (this gave a view of an avenue from the south which was also created at this time). The altar table of the oratory in the east window of the second storey was almost completely removed and the supporting masonry cut back, while the recess in the south wall was blocked up. Plaster was applied over these alterations. A smaller, plain fireplace was inserted into the west fireplace of the third storey; when this was cleared fragments of plain glazed tiles were found in the fill.

Substantial alterations (illus 12) were made to the upper storey of the tower house, including the addition of an outer face of ashlar work in dark grey sandstone, although later collapse and demolition had removed much of this. Parts of the east and west penthouse storey walls survived to a height of 1.7 m, as did

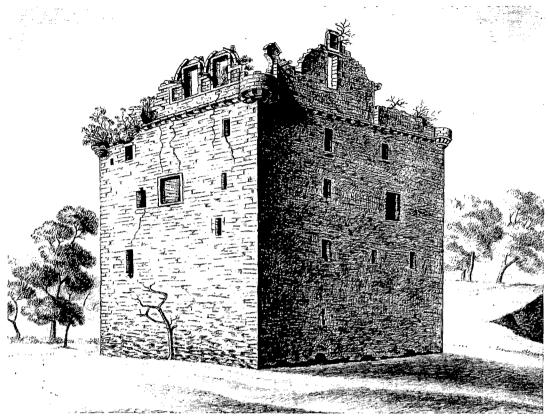


ILLUS 11 Phase 5: the outer yard (Structure H) and modified courtyard buildings

a pistol-loop in the remains of the south-east bartizan. Remnants of an extension of the newel stair survived where this had been corbelled over the re-entrant angle. A fireplace and jamb, both with roll-mouldings similar to the new entrance, were still in place within the remains of the north wall of the main block. A stretch of rubble wall, with a fireplace recess, rose from the corbel level of the north wall of the wing. As the ashlar facing and the rubble wall on the north wall of the wing overlay corbels and bartizan bases of buff sandstone, it is probable that an earlier roof-line scarcement wall was removed prior to this construction. Some of these details were recorded in a drawing made by Alexander Archer in 1835 (illus 13).



ILLUS 12 Phase 5: plan of the roof level extension, showing surviving details from Phase 4



ILLUS 13 Archer's (1835) depiction of the tower house from south-east, showing the double dormer still in situ. (© Crown copyright RCAHMS)

South courtyard building (Structure E) Alterations to this building may have been designed to converted the structure from a bakery into a forge or smithy (illus 14). The works included a second partition wall (F34), 0.4–0.5 m thick, which was inserted to divided the west room into two smaller chambers. Rough flagstones (F38) in the east room overlay a stony earth fill which contained three fragments of window glass. The same paving extended into the nearer subdivision of the west room, sealing more stony fill in which a glass urinal fragment was found (SF2955: see Murdoch, below). In the same subdivision, a large mortared hearth (F43), 1.7 m wide by 2.8 m long, abutted the north wall and lay directly on the earth fill of the floor. This was subsequently overlain by a smaller hearth, 1.4 m wide by 2 m long. Both were covered by layers of cinders. In the second or western subdivision of this room, a stone platform (F123) was built against the north-west corner where it overlay an earlier mortared hearth (Phase 4, above). The platform was 2.3 m wide by 2.8 m long and was built of large sandstone and lava blocks, unlike the flag-stones in the adjacent subdivision and east room. This may have supported an anvil.

A mid 17th-century scythe blade (SF2557: not illustrated) was found in the trampled layer over the bedrock floor, similar to one from Basing House (Moorhouse & Goodall 1971, fig 20, no 1).

A number of new features were cut into the barmkin wall which, in this sector, formed the south wall of Structure E. In the first subdivision of the west room, these included a chimney flue (F137) and an embrasured window (F138); and in the east room, a door (F126), 1.4 m wide, which gave access to a new outer courtyard (Structure H, below).

There was also evidence for external changes to Structure E, including clear indications that at least one additional chamber was added to the north side. An area of paving (F33), 1.5 m wide by 7.8 m long,



ILLUS 14 Phase 5: Structure E, in the south barmkin; modifications include subdivision of the west room, paving and a doorway opening onto the cobbled outer yard (Structure H)

was created on this side of the building; the paving included dressed and shaped pieces of buff sandstone and volcanic lava, and overlay a sandy soil fill (F70) in which there were sherds of a pitcher (SF2269) with a metallic brown glaze. A drain was carried along the outer edge of the paving. This was set beside an east/west wall remnant (F131), 61 m thick, with a door-check at the west end. Possible masonry remnants overlay the flag-stones at 1.3 m from the east barmkin wall and may also represent a wall-line. A window jamb, in buff sandstone, was set in the centre of the gap between the new wall (F31) and the tower house. At the north-west corner of Structure E, an irregular wall remnant (F124) abutted the outer face of the building from the west, and the thickening in the outer face of the adjacent north wall was extended. Both areas of new masonry contained pieces of dressed and shaped buff sandstone, either discarded or reused from earlier work.

West courtyard building (Structure F) The south end of this building (illus 10) was infilled with an earth and rubble fill. Set onto this, and incorporating wall remnants of the extension to Structure F1 (Phase 3), was a heavy stone surface of irregular, dark grey, sandstone blocks (F218). This pavement extended over an area of 6 m by 4 m within the doorway in the east wall. A clay pipe bowl of mid 17th-century type was found below this paving. Three stone steps were set in the doorway between this building and the south-west turret.

Outer yard (Structure H) This was an enclosed yard with a pavement of assorted water-rolled cobbles (illus 10 & 11). This new, outer court was created by appending an enclosing wall (F211) on the barmkin; the terminals were butted onto the turrets at each corner of the south barmkin wall (though it has been suggested, above, that the eastern wall sector — F118 — may already have been standing in Phase 4). The yard was trapezoidal or wedge-shaped in plan within maximum dimensions of 31.4 m east/west by 10m north/south. A gutter was led along the north edge, at the foot of the barmkin wall. The surface sloped gently towards the north and west, over a fall in height of about 1 m. The surrounding wall was up to 0.85 m thick. Although later demolition had removed all trace of the entrance, this was probably in the south side. There is no evidence that a sector of the barmkin wall was demolished for ease of access to the new yard, though this remains a possibility.

Lean-to (Structure I) This slight, timber lean-to building stood against the barmkin wall within the northwest quarter of the outer yard (illus 11). The building occupied an area measuring 1.4 m north/south by 4.4 m east/west and was defined by a group of four sub-rectangular post-holes, from 0.1 m to 0.3m wide.

Wall remnant (Structure J) A structure or enclosure appended on the outer face of the east barmkin wall was represented by a short wall remnant (F58), 0.35 m thick and 2.5 m long, which abutted the barmkin (illus 11). An irregular patch of mortar (F70) on its south side also abutted the barmkin wall and extended over an area measuring 2.8 m north/south by 1.2 m east/west. A worn, reused sill or lintel of dark grey sandstone formed a threshhold within the wall, indicating the position of a doorway.

Other features A miscellany of other, minor features is ascribed to this phase. Traces of a mortar surface (F102) were found at the outer face of the east barmkin wall, extending northward from near the south-east turret over a span of about 2.5 m. A pit (F112, not illustrated) in this area contained 94 whelk shells. Immediately south of this a mass of dark grey sandstone chippings (F110, not illustrated) infilled a small hollow, 7 m wide, to form a level ground surface. At the north end of the west barmkin wall, a small quantity of re-deposited bedrock chips suported a hearth (F383, not illustrated).

Phase 5b: alterations by the Hopes

Phase 5b began before all the rebuilding had been completed and can be attributed to the initial period of ownership by the Hope family, from the 1670s, before their principal seat at Hopetoun House was completed. This phase includes the demolition of the courtyard buildings (Structures E & F), and the barmkin wall and turrets. The remains of these features were buried by quantities of demolition rubble which also overspread part of the outer yard (Structure H). The rubble, in turn, was sealed by a uniform layer of earth and stone, indicating that an effort had been made to landscape the environs of the tower after the demolition of the surrounding built features.

Numerous finds were recovered from the rubble fills. In contrast, there were few architectural fragments, though fragments of roll-mouldings, in dark grey sandstone, were found in the rubble fill of the former doorway in Structure E, which was cut through the south barmkin wall.

PHASE 6

The tower house was probably ruinous by the end of the 18th century. In the basement, the well was filled with a range of stone debris and discarded objects, including glass, tiles and barrel staves, all sealed by mortar and building rubble, to make a surface flush with the bedrock floor. A deposit of straw, up to 1 m deep, attested to the use of the basement as a byre in the modern period; but this was subsequently sealed by rubble from the collapse of the first storey vault. The newel stair was completely removed and some stones were also robbed from the east face of the tower.

Some of the rubble from the collapsed vault was used to repair the north wall of the basement in this period. A pathway was worn through a breach in the remains of the north-east turret, possibly relating to a right-of-way which traversed the site until it was re-directed in 1986.

NIDDRY CASTLE FARM

Niddry Castle Farm was abandoned in the 1940s and remained derelict until the 1960s, when the buildings were demolished and the rubble deposited down the slope to the east. Before the excavation was undertaken by the authors, partial clearance had already been carried out on the farm site (illus 2) to recover building stone for the tower house restoration project. This revealed dressed and shaped stones which were evidently taken from the tower. Some of these were recorded by the Royal Commission (RCAHMS); others were recorded during the excavation. A floor of large sandstone blocks, 11.6 m east/west by 5 m north/south, was found under the rubble immediately east of the farm. The remains of a Clydesdale horse with complete leather saddle and harness fittings were found in a midden nearby; the harness and trappings were sent to the Museum of Leathercraft, in Northampton. This work is referred to here simply to record that it occurred; it was not archaeologically supervised, no records were kept and no further information is available.

ARTEFACTS

The range of artefacts from Niddry is wide, with both surprising gaps and unusual discoveries. Their value may be limited in strictly archaeological terms, since relatively few finds were from well-stratified deposits, but their historic importance is considerable, since they show that even a denuded site such as Niddry has potential to provide archaeological data across a wide range of constructional elements, and may also provide valuable artefactual evidence. The following reports have been abbreviated; complete reports and catalogues may be consulted in the archive of the project records at the National Monuments Record of Scotland (RCAHMS).

COINS AND JETTONS

C Aliaga-Kelly; identifications by J D Bateson

Twenty-three coins and two jettons were found. Most occurred in late deposits (Phases 5 and 6), including rubble spreads and topsoil, or the fills of the well and garderobe chute; one 17th-century jetton was found in a foundation trench for the tower house.

The assemblage dates from the late 16th to the 20th century (11 coins were of 19th or 20th century date; these are omitted form Table 1, below). It compares well with dates for other material from Niddry, which mainly reflects the later Seton occupation from the mid to late 17th century. The absence of coins of mid 16th-century date is notable.

The two jettons from Nuremberg are of special interest as they reflect not only the function of Niddry and its household as the economic centre of the Seton estate, but also its wider contacts.

Table 1
The earlier coins and jettons

Coins	Origin	Date	Location
James VI copper turner	Scottish	1597	Topsoil
Charles I copper turner	Scottish	1640s	Fill of well
Charles I copper turner	Scottish	1640s	Rubble over Structure H
Charles I copper turner	Scottish	1640s	Fill of foundation trench of the tower house
Charles II copper turner	Scottish	1663-8	Topsoil
Charles II copper turner	Scottish	1663-8	Deposit in east barmkin
James VI & I silver shilling, with martlet	Dublin	1604-5	Rubble outside east barmkin
William III bronze halfpenny	English	1699	Rubble over Structure H
George III bronze halfpenny	English	1775	Topsoil in east barmkin
Brass jetton	Nuremberg	Late 16th century	Fill of garderobe chute
Brass jetton	Nuremberg	Early 17th century	Phase 5a midden

These were reckoning counters, which would have been used with a counting-board or cloth in keeping accounts.

POTTERY (ILLUS 15-18)

C Aliaga-Kelly

with comments by J W G Hurst & George Haggarty

Approximately 1085 sherds of pottery were found, mainly in the latest soil and rubble deposits (Phases 5 & 6), with a only small number from stratified deposits. Four basic fabric groups can be distinguished, although more than 30 types of fabric could be distinguished by manual inspection.

Group 1 East Coast Gritty Ware of the 12th–14th centuries (illus 15). This was represented by sherds of pale unglazed, oxidized, quartz-grained fabric. There were identifiable fragments of three cooking pots and a possible pitcher. Although the quantity is limited, this ware clearly indicates a presence at Niddry in this period.

Table 2 East Coast Gritty Ware

Group 1: unglazed, oxidized, quartz-grained, pale. 12th-14th centuries

Find Number	Sherd	Description	Vessel type	Location
3282	Rim	D-section rim	Cooking pot	Residual soil in E barmkin
312	Rim	Square-section rim	Pitcher	Silt in E barmkin
1770	Rim	Rounded square- section rim	Cooking pot	Lowest deposit in N midden
3457	Rims	Rounded square- section rim	Cooking pot	Lowest deposit in N midden
1904	strap handle	oval section rim	Cooking pot	Lowest deposit in N midden

Table 3
Group 2: Late and post-medieval Greyware 15th–18th centuries

Find Number	Sherd	Description	Vessel type	Location
414	Rim	Reduced	Globular, with short, thick rim	E barmkin
2913	Rim to base, profile	Oxidized	Chamber pot or cooking vessel	Rubble E of castle
3369	Rim with handle	Oxidized	Chamber pot or cooking vessel	Rubble W of castle
2669	Handle and body	Oxidized	Cooking vessel	Silt under Phase 5a platform in Structure E
5135	Rim, with lid edge	Reduced	Cooking vessel	N midden
2344	1 rim, 6 body	Oxidized, fine	Pitcher	Deposit in E barmkin
2064	Handle	Reduced, diagonal cut decoration	Pitcher	Silt in W barmkin
3586	1 handle, 2 rim	Reduced	Pitcher	W midden

Group 2 Reduced Greyware of the 15th to 18th centuries (illus 16 & 17). The predominance of Greyware in the total assemblage is similar to that from recently excavated late- and post-medieval settlement sites elsewhere in Scotland (Haggarty 1988, 255). Since several sherds resembling post-medieval Greyware were found in deposits of Phase 4 or earlier date, it is probable that this type of pottery at Niddry was, in fact, of late medieval origin.

A pitcher from the soil below the east barmkin wall is similar to vessels of 15th or 16th century date from Fast Castle, Berwickshire (V Dean, pers comm). No comparison is known at present for the metallic brown glaze of the pitcher from under the paved surface north of Structure E (Phase 5a). Two handles have ridges comparable with unpublished 14th- to 16th-century examples from Dirleton Castle. The sherd of a globular vessel has a short, thick rim, similar to a pottery urinal, of 14th- to 16th-century date, similar to those from Bothwell Castle and Melrose Abbey (McCarthy & Brooks 1988, 383–4; after Cruden 1952 & 1953). In general, the forms and details of the Greyware from Phase 5a deposits of soil and rubble are very similar to examples from Stirling Castle (Haggarty 1980) and Throsk (Caldwell & Dean 1992), suggesting that they were used and deposited in the 17th and 18th centuries. Although both oxidized and reduced fabrics are present, the material is grittier than that from Throsk, indicating probable manufacture at a site which has yet to be identified, possibly near Linlithgow (Laing 1967, 139–40) or perhaps closer to Niddry.

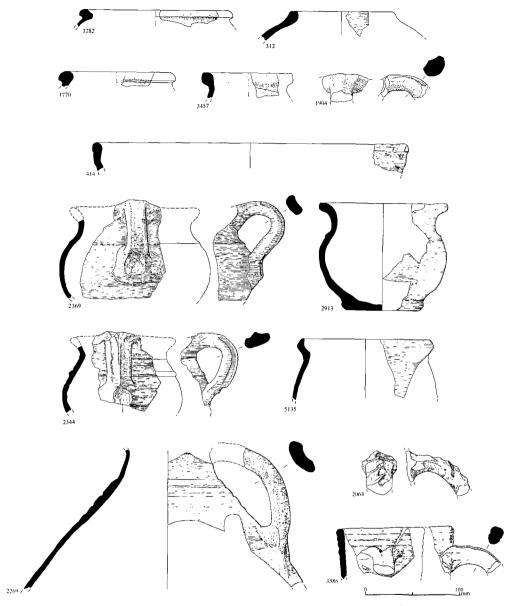
Between 30 and 50 vessels could be identified and include urinals, cooking vessels or pipkins, bowls, dishes or platters, pitchers or jugs, storage vessels and jars. Decoration was limited to such details as splayed or frilled bases on a number of pitchers, as at Throsk (Caldwell & Dean 1992, figs 9.66, 8.60). There was also heavy decoration of the rims or bases of some thick-walled bowls or dishes, probably in imitation of imported wares, though this tended to emphasise the plain, almost utilitarian nature of this ware. Two possible inkwells are similar to examples found at the Tron Kirk, Edinburgh (Holmes 1986, 147), and dated to the 1630s.

Table 4
Greyware bowls and platters

Find Number	Sherd	Description	Vessel type	Location
1593	Rim	Oxidized, thick	Pitcher	E midden
3040	Rim	Reduced	Heavy Bowl	SW midden, Phase 5A
3039	Body	Reduced, relief decoration	Heavy bowl	SW midden, Phase 5A
1940	Rim	Oxidized	Bowl or plate	N midden
2912	B and body	Reduced	Flat dish	SW midden, Phase 5A
3003	5 rim, 3 body	Oxidized	Jar or inkwell	Midden in SW tower
1901	Rim	Reduced	Jar or inkwell	Deposite in N midden
2885	Rim	Reduced	Heavy dish	Soil over Structure H
2788	Rim	Oxidized	Bowl	W barmkin
1517	Rim	Oxidized	Bowl or plate	E barmkin

Group 3 Imported wares, mainland European and English origin of the 15th–18th centuries (illus 18). Imported wares of 17th-century and earlier dates are represented only by isolated sherds; this is typical of Scottish late medieval and post-medieval sites. The sherds of French origin (the Loire jug and the possible Saintonge vessel), along with those of German and Low Countries origin (Langerwehe, Raeren, Frechen 'Bellarmine' and Westerwald) are unexceptional. However, a Ligurian 'berettino' landscape plate, and a possible Seville 'starred costrel' are important, since neither type is commonly found in Britain (Hurst *et al* 1986, 26–7, 63). Trade with England is represented by a sherd which resembles North English ware of the 14th century, along with fragments similar to skillets of Surrey ware (Jennings 1981, 131, fig.53: 882) or those manufactured at Woolwich (Pryor & Blockley 1978, 60, fig 12:56).

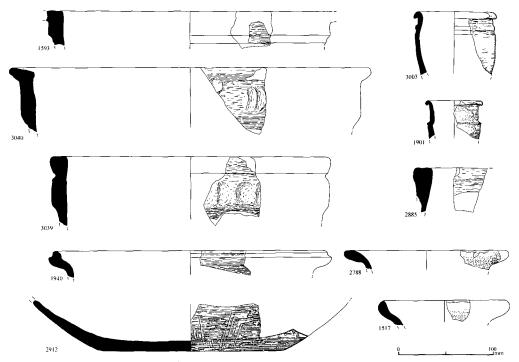
The 82 sherds of hard ware, of orange glaze and fabric, from two locations in the Phase 5a rubble and soit deposits may have come from only two vessels. Although generally small and abraded, these sherds showed that the vessels were approximately 0.3 m in diameter, with flat base, wide outer lips and oval



ILLUS 15 Pottery: East Coast Gritty Ware, Reduced ware and Greyware bowls and pitchers

handles. The fabric and colour are similar to that of Dutch-type glazed red earthenware of the late 16th and early 17th centuries (Jennings 1981, 137–40, fig 57). Indeed, the pinched handle indicates Dutch manufacture and influence, although no comparison is known for the wide flange below the rim.

Group 4 Recent fabrics (illus 18). Also found in the Phase 5a rubble and soil deposits were 94 small abraded sherds of plain and decorated tin-glazed earthenware. These represent at least two dishes, five plates, five bowls or porringers and a possible jug or vase. A six-lobed porringer handle can be compared



ILLUS 16 Pottery: Reduced ware and Greyware platters

with an example of late 17th- or early 18th-century date, from Norwich, although the latter was of a single-handled vessel (Jennings 1981, 214, no 1514). It is possible that the porringer may have been used as a quaich, a distinctive type of Scottish drinking vessel which had two handles. No comparison has been identified for the vertical-sided vessel. The dish of scalloped design is a distinctive type which may have been imported from mainland Europe to hold rose water at table, like an example from the 1650s found at Finavon Castle (Simpson 1956, 412). One 'set' of tin-glazed earthenware, of 1686, from London, consisted of a rose water dish, three plates, three porringers and two jugs (Garner 1948, pl 12). This group was of similar proportions to that described above, and it is possible that the finds from Niddry were from a similar 'set' of plain and decorated tin-glazed earthenware. A number of sherds were of blue-painted ware, possibly from a single source.

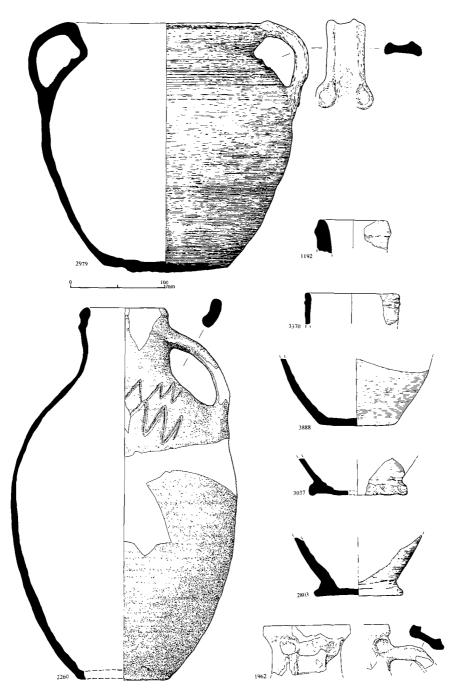
TILE AND BRICK

C Aliaga-Kelly

There were 1300 tile fragments and 135 of brick, ranging from complete examples to small fragments. From these, four distinct types of tile and two of brick were identified. Their significance has been established in relation to comparable examples from other sites in Scotland (Aliaga-Kelly & Proudfoot 1996). Although only a few tiles remained *in situ*, tile distributions within the site provided some indications of their original positions.

Tiles

Type 1 These fragments represent 40-50 tiles of Flemish origin, with black or white slip. Over half were from deposits within the tower house and in the east barmkin, with 10 complete tiles from the backfilled



ILLUS 17 Pottery: Greyware pitchers and storage vessels

Table 5 Greyware pitchers and storage vessels

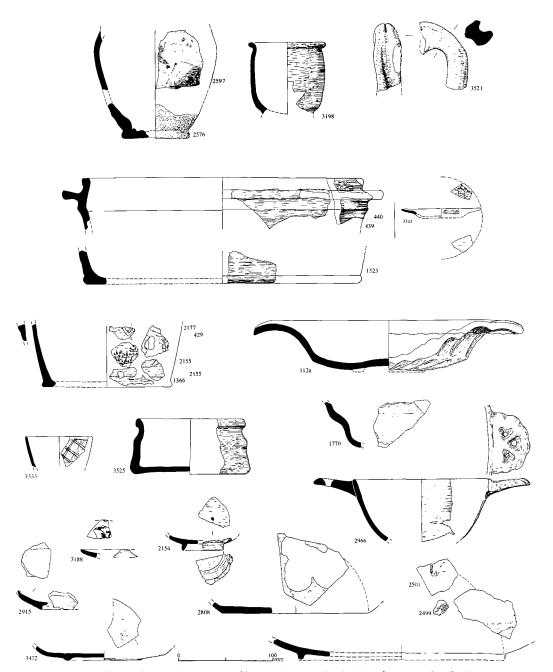
Find Number	Sherd	Description	Vessel type	Location
2979 2260	Complete vessel Body, handle	Reduced reduced, dark brown glaze, single strap handle	Storage vessel Pitcher	Midden, SW tower under floor against Structure E
1192	Pitcher rim		E midden	
3370	Rim		Pitcher	Rubble outside W barmkin
3888?	Base	Oxidized	Cooking vessel	N midden
3037	Base	Reduced, imitation frilling	Pitcher	Midden, around SW turret
2803	Base		Pitcher	Deposit over cobbled yard
1962	Strap handle, with rim	Oxidized	Pitcher	N Midden

Table 6 Group 3: Imported wares 15–18th centuries

Find Number	Sherd	Description	Vessel type	Location
2576/2597 3198	1 body and 1 base 2 Rim, 3 body	Seville Yellow-glazed, with green spots, off white gritty fabric. Probably Surrey	'Starred costrel' Pipkin or jar	Rubble in S barmkin SW midden, Phase 5A
3521	8 rim, 2 handle, 12 body	Dutch-Type Glazed Red Earthenware	Large bowl or cauldron	W midden
439/440	1 rim, 2 handle	Dutch-type Glazed Red Earthenware	large dish	Deposit in E barmkin
1523	1 base	Dutch-type Glazed Red Earthenware	large dish	Deposit in E barmkin
3345	Base	Ligurian	'Berettino' landscape dish	Rubble E of castle

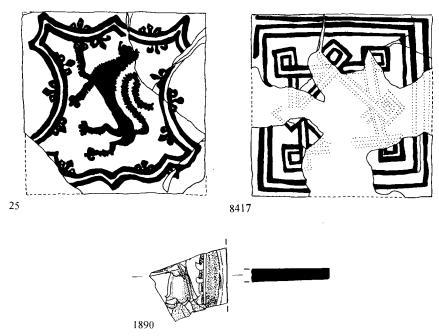
Group 4: English/Dutch tin glazed and imported wares

2177/2155 × 2/429/1366	1 base, 13 body	Blue-painted, tin-glazed earthenware	Jug or vase	Deposit in E barmkin
112a	profile	Tin glazed earthenware, scalloped shape	Large dish or charger	W slope
3333	Rim	Blue-painted, blue tin- glazed earthenware	Bowl or porringer	SW midden, Phase 5A
3525	2 rim to base	Tin-glazed, vertical sides	Dish or bowl	W midden
1770	1 body	Tin-glazed, stepped profile	Bowl	Deposit in N midden
2966	1 handle, 3 rim, 5 body	Tin-glazed, one-handle and mark of a second	2-handled porringer	Midden in SW turret
2915	Body	Blue-painted, blue tin- glazed earthenware	Plate	SW midden, Phase 5A
3188	Rim	Blue painted, blue tin glazed earthenware	Plate	SW midden
2154	Base	Blue-painted, tin-glazed earthenware	Bowl or porringer	Deposit in E barmkin
2808	Base	Blue-painted, tin glazed earthenware	Bowl or porringer	Rubble over Structure H
2499/2501	3 base	Blue-painted, tin-glazed earthenware	Plate	Under rubble in Structure E
3472	Base	Blue-painted, tin-glazed earthenware	Plate	Rubble over Structure H



ILLUS 18 Pottery: tin glazed, recent fragments and imported wares; sherd 3345, a fragment of Italian 'Berettino' ware

well. Four fragments were found in the rubble fill of the intra-mural chamber in the north-west corner of the second storey and fragments of three remained mortared *in situ* in the west window recess of the second storey of the north wing. These Type 1 tiles were widely used in both religious and secular buildings in the late 15th and 16th centuries (Norton 1994, 150–3), but their survival in private rooms at Niddry is rare among Scottish late medieval buildings.



ILLUS 19 Tile: Type 2 relief-moulded tiles, one with a stylized lion and one with interlaced rectangles; also a fragment of Type 3 white-glaze, blue-painted tile showing a figure within a rectangular frame and curved border; from the east barmkin

Type 2 These fragments represent 30–50 tiles, of which 11 had relief-moulded decoration. Over 60% of Type 2 tiles, including all but two of the fragments with relief-moulded decoration, were from deposits in the tower house and in the east barmkin. All the complete examples of plain tile came from the well. The remaining two fragments with relief-moulded decoration were found in the fill of the second-storey east window, and may originally have been laid there.

The relief-moulded decoration was of two forms (illus 19): a stylized lion within a shield-shaped border of double tressure avec fleury-contre-fleury (SF25); and interlaced rectangles (SF8417), similar to the pattern on some tiles from Dirleton Castle (Richardson 1929, fig 13.1). Most of the examples of plain tiles comparable with Type 2 have been found in castles such as Dirleton and Tantallon, East Lothian, where they may also have been manufactured (Richardson 1929, 305–10). Similar plain tiles were found at Skirling Castle, Peeblesshire, and, since it was destroyed in 1568 (Norton 1994, 160–1), these suggest a broad terminus ante quem for their manufacture.

Type 3 Delftware. Fragments in this type represent up to 15 tiles. Nine fragments of two tiles had black gaze, while 30 fragments from five or six tiles had white glaze. The white tin glaze and the nail holes at the corners of the upper surfaces are characteristic features of Delftware tiles, manufactured in the Low Countries and in England in the late 17th and 18th centuries (Jay 1973). Twenty-eight fragments of black and white tiles with visible scorch marks, were from the fill of the third-storey west fireplace. Another example of black and white glazed tiles used together was on the sides of a fireplace in Provost Skene's House, Aberdeen (Meldrum 1959, 91, pl 15.3).

Fragments of two tiles with white glaze had painted decoration. One (SF1890), from a deposit in the east barmkin (illus 19), was in blue, showing a figure in a rectangular frame, within a circular border. The other, from the rubble over Structure H, bore a geometrical design in manganese-coloured ink, similar to one from a house on Castlehill, Edinburgh (NMS LR31).

Type 4 Fragments of Type 4 may represent up to 45 tiles. Over half of these came from deposits in the east barmkin, while most of the others were from rubble and soil deposits south and west of the tower house. Although fired to a uniform grey-brown colour, the texture of Type 4 tiles is very similar to that of Type 2, so it is possible that both were manufactured from the same clay. The fragments also indicate that some complete tiles were of sub-rectangular, almost trapezoidal shape, with a near wedge-shaped profile, their edges curved in convex or concave shape. Wear was conspicuously absent from the surfaces of all the Type 4 tile fragments. No glaze was present, but some surfaces had a burnished feel.

Although none of these tiles had any decoration, scratched details were visible on two fragments (not illustrated). One partial tile (SF3468), from rubble in the south barmkin, had incomplete writing on its upper surface, abridged by a break:

NING ME IS THEIFR

A design of circles appeared on a corner fragment from another tile; this came from rubble east of the castle.

Brick

Type 1 Bricks of orange/brown fabric. The corner fragments represent between 10 and 20 bricks of Type 1, distributed fairly evenly through the rubble deposits in and around the tower house. These were probably imported, since little is known of brick manufacture in Scotland before the 18th century. The bricks were similar to unstratified fragments from Edinburgh Castle (Steven Driscoll, pers comm) and Skirling Castle (Dunbar 1965, 245). Again, this suggests a possible *terminus ante quem* for their manufacture, since Skirling was destroyed in 1568 (Norton 1994, 160–1).

Type 2 Grey/yellow; white/grey fabric. Surviving fragments represent up to ten bricks. All of these were found in (Phase 5a) midden deposits and in the east barmkin. The bricks were of an even rectangular shape. Although coarse in texture they were probably imported. Comparative bricks from other sites have not been identified.

Archived catalogue

The archive of the project records at the National Monuments Record of Scotland (RCAHMS) includes a catalogue of all tile and brick fragments.

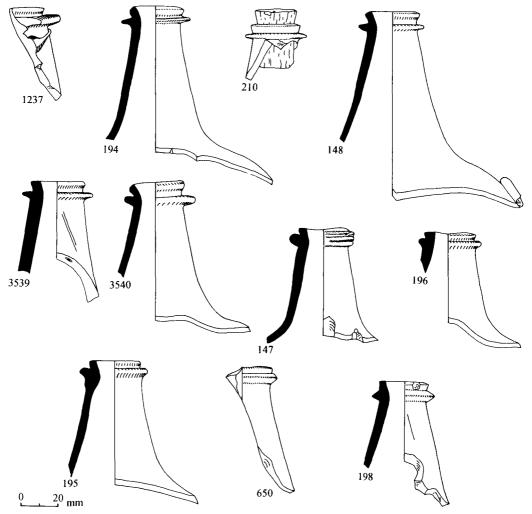
GLASS

K R Murdoch

Bottle and vessel glass as well as window glass were found at Niddry. All have a great deal to contribute to glass studies, in particular the bottle glass seals and the wine glass.

Bottle glass (illus 20, 21 & 22)

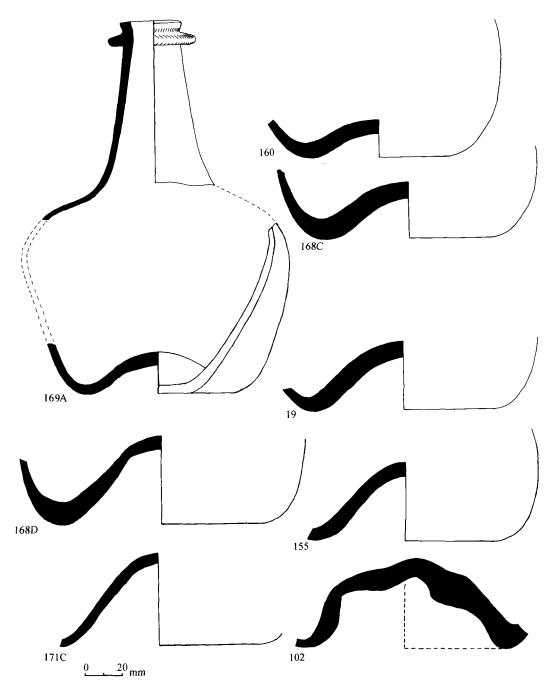
The 1400 shards of bottle glass were all fragmentary, almost three-quarters from the well, an entirely unsuitable environment for good preservation of glass. Although only a few shards could be joined, approximately 90 bottles were represented by the base and neck fragments. These could be dated by reference to the typologies of Leeds (1941) and Hume (1961), using the diagnostic details of neck height and shape, the types of string-ring ridge around the mouths (illus 20), the depth of base kick-up and the position of the maximum diameter of the body (illus 21).



ILLUS 20 Bottle glass: neck height and variation in string-rings

Detailed examination of the datable pieces indicates that 61% were of late 17th-century type, 31% were of early 18th-century type and 5% were of late 18th-century type or later; 4% of the fragments lacked datable characteristics.

Five complete and five fragmentary shoulder seals were found, seven of which were from fragments recovered from the well. None carried dates, but all were of late 17th-century type. One seal from the well was heraldic, with the coat of arms of the Hopes of Hopetoun: a chevron between two besants on a shield, surmounted by a fore standing, open helmet and a crest of a globe surrounded by a rainbow (illus 22). Since the helmet was the sign of a knight, the bottle probably belonged to the first titled Hope, Sir John, who died in 1682 (Paul 1907, vol 4, 493). The other nine seals and fragments were of a triangular letter group, an L above and MH below (illus 22), possibly all from the same die. The initials could have been those of Lady Margaret Hope, widow of Sir John and acting head of the family from 1682 until 1703 (Paul 1907, vol 4, 493).



ILLUS 21 Bottle glass: bottle shape and variation in kick-up of the bases

The Niddry bottle assemblage is particularly important because of the quantity of late 17thcentury glass, a time when bottles were costly and rare in Scotland. In contrast, by the middle of the 18th-century bottles were fairly common, but the Niddry collection contains almost nothing from this period. The earlier bottles were probably of Scottish manufacture, possibly at Leith (Irons 1896, vol 2, 121-2). The fragments were of dark green potash glass, with the depth of hue varying considerably. Amongst the pre-1730 material no 'black' or amber shards were present, the norm on Scottish sites. As none of the bottles can be dated earlier than 1665-70, only a few may derive from the time when Niddry was owned by the Setons, while the majority probably date to the early years of Hope ownership.

Logation

Data

TABLE 7 Bottle glass

Body and base forms (illustrated)

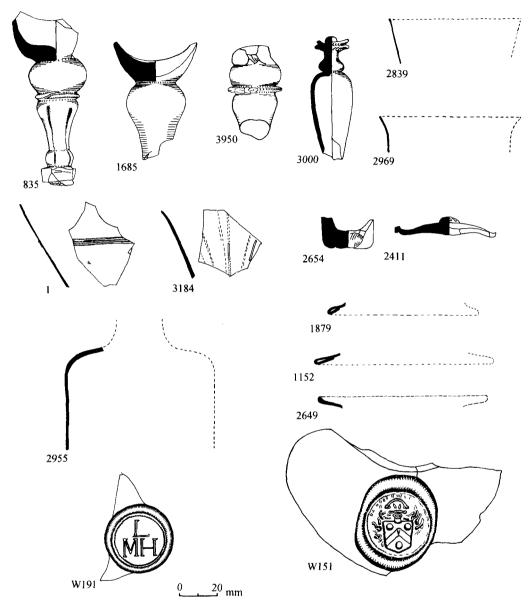
Description

Find number	Description	Location	Date
175/169A	1 neck; 1 base shards	Fill of Well	1670-85
168D	Base shard	Fill of Well	pre-18th century
171 C	Base shard	Fill of Well	c 1720
160	Base shard	Fill of Well	1680-90
168C	Base shard	Fill of Well	1680-90
19	Base shard		pre-1700
155	Base shard	Fill of Well	pre-18th century
102	Base		1720-50
Neck forms (illustr	ated)		
1237	Neck	Fill of Well	1670-85
194	Neck and shoulder	Fill of Well	1680-1700
210	Neck shard with cork	Fill of well	late 7th/early 18th century
148/208	Neck and shoulder	Fill of Well	1685-1700
3539	Neck	Midden outside W barmkin	Late 17th-early 18th century
3540	Neck and shoulder	Midden outside W barmkin	Late 17th century
147	Neck	Fill of Well	Late 17th-early 18th century
196	Neck	Fill of Well	1690-1700
195	Neck	Fill of Well	c 1700
650	Neck	S barmkin	c 1730
198	Neck	Fill of Well	pre-18th century

Significantly, perhaps, the well filling included some sodden and rotted fibrous material, like straw, along with a fine silt, appropriate for the floor of a wine cellar; the barrel staves from the same context could have been from barrels containing wine to be decanted into bottles.

Vessel glass (illus 22)

Since Niddry was not a principal seat of the Setons, the discovery of shards of two goblets or drinking vessels of possible Venetian glass and of two others façon de Venise or northern European origin is particularly remarkable. Such vessels were once rare in Britain (Charleston 1973, 182), but recent excavations have revealed similar finds at other tower houses in Scotland, including at the episcopal palaces of Dairsie, Fife (Murdoch, forthcoming: c); Spynie, near Elgin (Murdoch, forthcoming: b), at Fast Castle, Berwickshire (Murdoch, forthcoming: a); and Skirling, near Biggar (Dunbar 1965, 244-5); the detail of the fragment with enamel ribs is similar to a complete vessel in Birmingham City Museum (Inv no 1891 M 13). Their availability, therefore, may have been greater than was previously indicated by archaeological evidence.



ILLUS 22 Vessel glass: trailed glass, Venician and façon de Venise, wine glass stems and seals from the shoulders of wine bottles

Much of the material is fragmentary, lacking diagnostic details. Some vessel glass may have come from the European mainland; most of the vessels may have been made in England. The fragment of a distinctively English 'cigar-stem' (SF300), possibly made in London (Charleston 1973, G94, G104, G109, G129), shows that some glass did indeed come from England.

Three wine glass stem fragments (SF835, SF1685 & SF3450) were tested on X-ray luminescence equipment at the Royal Museum of Scotland; this confirmed they were of lead glass. These could be dated to c 1660–1715, on the basis of their 'inverted baluster' shape. The

tests revealed that the first two stems, with a slight brownish tinge, were earlier than the third stem, which had a slight bluish tinge; this was later than c 1700. All three could have come from a northern English glassworks, perhaps at Newcastle. The fragments of wine glass feet were of a colourless lead glass, yet they were from the same deposit as the stem fragments, indicating the presence of at least four different glasses.

The blue-green phial base (SF2654) is of a type datable to the second half of the 17th century (Ellison *et al* 1979, 170, fig 7.48b). The other bottle fragments were of types which were made over a considerable period of time (Huggins 1969, 86.8). The urinal (SF2955) from below a floor in Structure F (Phase 5a) could have been made at any time between the 14th and the 17th century, its discovery in this context indicates deposition by the mid 16th century. No comparisons are known for the dished fragment (SF2411), although it could have been a lid.

Window glass (not illustrated)

Shards of window glass were found both in primary and stratified deposits, totalling 319 in all. Three types were identified, providing the basis for limited dating. No complete panes could be reconstructed and the classification, therefore, is based on the glass itself and on the numbers of fragments. Some were from lozenge-shaped panes, but most were small and brittle, so that the form was no longer identifiable. Several shards were found in window apertures. A few shards may have been lost during the glazing process, but most were probably thrown aside when the lead window cames were removed, during demolition. Therefore, their distribution generally reflects where they were originally in use.

Type 1 There were 137 shards in total of this pale blue-green glass, with a sandy-brown patina on most of the shards. Four shards were from beneath flooring in Structure E (Phase 5a). Two were from the aperture of the third-storey east window in the south wall of the tower house. Twenty-six shards were in the backfilled well or within deposits in the east barmkin, yet there was no window glass in the latest (Phase 5a) rubble and silt deposits. Such limited stratigraphical evidence indicates that Type 1 was probably in use before the late 16th century, both in the tower house and possibly also in Structure E.

Type 2 There were 99 shards of this type. It is of a similar pale blue-green colour to Type 1, but without the surface patina or denaturing and may, therefore, be somewhat later. No Type 2 shards were found in the well; 38 shards were present in deposits in the east barmkin; 13 in late midden in the south-west barmkin turret; 13 in a late midden deposit outside Structure F. There were 13 shards in the aperture of the third storey east window of the south wall of the tower house, and five in the aperture of the west window of the entresol storey of the north wing.

Type 3 The 88 shards of this potash glass, were a dark, almost black colour, with a brown and silvery surface patina on some shards. Where fresh breaks occurred, a clear, colourless glass can be seen in the core. This type was found throughout the site. There were, for example, four shards from inside the tower house, and nine from deposits over the (Phase 5) outer yard. Others were from late middens, from the south-west barmkin turret, and from outside the west barmkin wall. Thus, it is difficult to say where this glass was used, but it could have been early, perhaps in windows of the courtyard buildings.

Summary

The shards from Niddry indicate at least three phases of glazing, with four types present. Their distribution shows that glass of Type 1 may have been used in Structure E, and Type 2 in Structure

Table 8 Vessel glass

Find number	Shard	Description	Vessel	Location	Provenance
835	Stem with fragment of bowl	Bowl, flattened knop, over thin merese on baluster with quatrefoil indentation on base knop and fragment of foot. Slightly brownish lead crystal glass	Wineglass with 'inverted baluster' stem	Deposit in E barmkin	Probably English. Late 17th century
1685	Stem with fragment of bowl	Bowl, flattened knop over thin merese over baluster. Slightly brownish lead crystal glass	Wineglass with 'inverted baluster' stem	Deposit in E barmkin	Probably English. Late 17th century
3450	Merese of a stem	Colourless. Potash glass	Stemmed goblet	Rubble over Structure H	Possibly English
3000	Hollow 'cigar stem'	Colourless. Potash glass	Stemmed goblet	Midden in SW turret	Probably English. Possibly 1620–50
2839	Rim	Fine, thin, colourless. Soda glass	Conical goblet	Rubble over Structure H	Probably Venetian. Late 16th or early 17th century
2969	Rim	Everted. Badly denatured colourless potash glass	swet-meat/wide- mouthed jar	Midden, SW turret	Possibly English 17th century
1	Side	Thin, firebright, colourless, with external trailing of four thin lines in opaque white. Soda glass	Conical goblet	Rubble over first storey vault of tower house	Probably Venetian. Late 16th or early 17th century
3184	Side	Badly denatured, colourless, with exterior applied red brown ribs in enamel. Potash glass	Conical goblet	Deposit in N midden	Façon de Venise, N Europe. Late 16th or early 17th century
2955	Shoulder	Thin, firebright, with blotchy denaturing. Soda glass	Square bottle	Midden in SW turret	Possibly English. 17th century
2654	Base	Blue-green soda glass	Phial or apothecary's bottle	Deposit in E barmkin	Possibly English. Mid-17th century
2411	Fragment	Rounded, slightly dished, with rim and pontil scar on hollow face. Soda glass.		Fill of post hole in basement of N wing of tower house	Not known
1152ii	Two fragments of foot	Folded foot. Slight denaturing. Colourless lead crystal glass	Wineglass	Deposit in E barmkin	Possibly English. Late 17th or early 18th century
1879	Fragment of foot	Folded foot. Colourless lead crystal glass	Wineglass	Deposit in E barmkin	Possibly English. Late 17th or early 18th century
2649	Rim	Colourless, badly denature potash glass	Urinal	Deposit under Phase 5a floor in Structure E	Early of mid-16th century
191 195	Bottle seal Bottle seal			Fill of Well Fill of Well	1685–95 1670–80

F. A date range in the mid 16th century or earlier for the glass of Type 3 is suggested. Some of the glass was crown glass, including shards of Type 1, Type 2 and Type 3. Some Type 3 shards are similar to those from Jedburgh Abbey (John Lewis, pers comm). Pedro de Ayala, the Spanish ambassador to the court of James IV, in a letter of 1498, noted the window glass in the houses in Scottish towns (Hume Brown 1978, 47), suggesting that glazing was already extensively used in Scotland at that time.

CLAY TOBACO PIPES (ILLUS 23)

C Aliaga-Kelly

An assemblage of 334 fragments of clay pipe stems and bowls were recovered from 36 different contexts. These were described and classified in two groups, following Gallagher (1988). Group 1 pipes could be dated to the period between the early 17th and early 18th centuries; they were found throughout the site. Group 2 pipes were much later, dating to the late 19th and early 20th centuries. Most of these were late examples from topsoil over the east barmkin, where there was a public right-of-way until 1986; they probably reflect casual losses by passers by or visitors to the ruins.

Table 9 Clay-pipe analysis

Group 1: Early 17th to early 19th century

Percentage	Bowls	Manufacturer	Date range
4.8%	1 bowl	Unidentified (possibly early)	1620-50
14.2%	3 bowls	W B (William Banks, Edinburgh)	1640-60
28.8%	6 bowls	T B (Thomas Banks, Edinburgh)	1649-61
9.6%	2 bowls	PC (Patrick Crawford, Edinburgh)	1671-82
4.8%	1 bowl	G C (James Coloquhon, Glasgow)	1668-1730
4.8%	1 bowl	Star (possibly John Ferguson. Stirling)	post-1650
23.4%	5 bowls	Unidentified, possibly Edinburgh	Mid to late 17th century
9.6%	2 bowls	Unidentified, possibly imported	Early 17th century

Group 2: Late 19th and early 20th centuries

Percentage	Fragments of bowls	Fragments of inscribed stems	Places of manufacture
60%	5	15	Edinburgh
15%	3	2	Glasgow
3%		1	Bathgate
3%	1		Falkirk

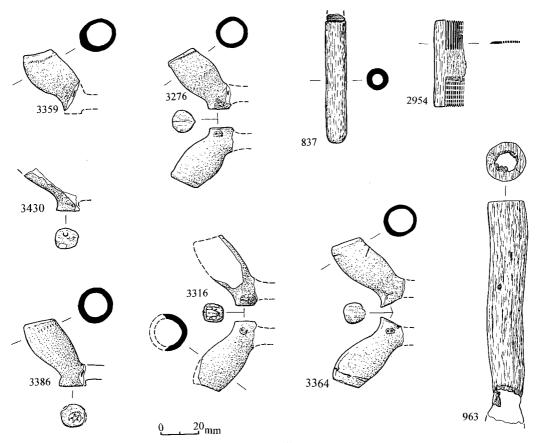
The high proportion of mid to late 17th-century material from Edinburgh contrasts with the few possibly imported and early types. It is probable that the pipes arrived at the site with the Setons and their household. Approximately 66% of these bowl and stem fragments were burnished by the manufacturers, including some of those by Edinburgh pipe-makers Thomas Banks, Patrick Crawford, and James Colquhon. These were from more expensive pipes and possibly indicate the elevated social status of the user. The percentage of burnished fragments is high in comparison with the assemblage from Smailholm Castle (13.4%) or Jedburgh Abbey (40%) (Gallagher 1988, 258).

A bowl with the initials 'W B', showing manufacture by William Banks of Edinburgh, came from a fill beneath the secondary floor (Phase 5) in Structure F. This provides a *terminus post quem* in the mid-17th century for the overlying paved surface and confirms continuing activity at Niddry during and after that period.

Table 10

Clay pipes: illustrated examples

Find number	r Details	Manufacturer	Find spot
3359	Plain, small; Unburnished	Unidentified, early, possibly imported	Rubble outside W barmkin wall
3276	W B stamp; Unburnished	William Banks Edinburgh	Fill under Phase 5a surface, Structure F
3364	T B stamp; Burnished	Thomas Banks, Edinburgh	Midden in SW turret
3316	P C stamp; Burnished	Patrick Crawford, Edinburgh	Phase 5a SW midden
3430	G C stamp; Burnished	James Coloquhon, Glasgow	Rubble outside W barmkin wall
3386	Six-point narrow ray star; Burnished	Possibly John Ferguson, Stirling	Rubble outside W barmkin wall



ILLUS 23 Clay pipe and worked bone; SF264 is an ivory needle case

FAUNAL REMAINS

Finbar McCormick

A large assemblage of animal bones was recovered, but their fragmentary condition made relative proportions of individual species difficult to assess.

Cattle and sheep were clearly dominant, forming 60–70% of the total. These were almost all mature animals and, of the cattle, only one calf was identified (Phase 4). The cattle bones from midden deposits north of the castle (Phase 5) had been butchered particularly close for extraction of marrow. This may indicate a food shortage, possibly due to a bad winter, animal illness or even conflict.

A sheep horn, from rubble outside the west barmkin wall (Phase 5), had a hole drilled through it, apparently during the life of the animal. An early 19th-century topography County Armagh, in Ireland (Cootes 1804, 2293), supplies a possible explanation: here, goats had their browsing limited by a 'jack cord' secured to a post, which passed through metal rings 'made fast to the goats' horn by cord which passes through a hole drilled through the horn'.

Horse bone included remains of most of seven animals from Phase 4 deposits. Remarkably, this was almost all butchered. The material differs markedly from the deposits of butchered horse bone at Whitley Palace, Oxfordshire (Wilson & Edwards 1993, 54–5), where horses were being butchered to feed dogs and occurred only in distinct deposits of horse bone.

Dogs were represented by fragmentary remains of two individuals from a soil layer (Phase 3) underlying the east barmkin wall. Remains of a third, with complete skeletons of three more, were found in the rubble and soil deposits over the south barmkin and Structure H (Phase 5). Four of these had shoulder heights of 0.39 m or more, indicating fairly large animals, possibly some of those kept for hunting at the 'kennels' depicted on the Lesslie's map (1759) of the Hopetoun estate.

Other species were well represented. Bones of pig, cat and pigeon were widely scattered throughout the site. Two fragments of red deer skull were found in Phase 5 deposits. Few fish bones were recovered, however, partly perhaps because no soil-sieving was undertaken. Only one could be identified: this was a single cod bone from (Phase 5) midden deposit in the south-west barmkin turret. Single bones of a hare and donkey were recovered from Phase 3 deposits. A few bones of rats and rabbits were found in the later topsoil and rubble deposits (Phases 5 & 6) around and inside the castle, reflecting the decay and abandonment of the site.

Summary

The bone assemblage reveals that the meat diet of the inhabitants, comprising sheep and cattle meat, remained fairly consistent during the life of the castle. The evidence for butchery of horses is one of the most important but unexpected aspects of this study. It is corroborated by the incidence of closely butchered cattle bone and points to possible periods of food shortage at Niddry, particularly evident in Phase 4 material. The dog skeletons highlight a previously unrecorded and unexpected role of Niddry as a hunting seat of the Setons; this could also explain the two fragments of red deer skull. Since this animal was not a native of West Lothian in the 16th or 17th centuries, however, the bones may simply be remnants of a trophy head from an animal killed elsewhere.

MOLLUSC SHELLS

Shell fragments found throughout the site was predominantly of oyster, with some mussel and cockle. These probably represent food debris. However, a deposit of 94 four whelk shells was also found, within a late pit (Phase 5), dug against the exterior of the south-east barmkin turret. This is an unusual discovery. Whelk shells are seldom found on medieval or post-medieval settlement

sites and were sometimes considered unfit food for humans (Heppel 1980). Despite the small quantity is not great, the whelk shells could have been brought to the site for liming the soil or for mortar production, a use to which oyster shells were also put.

WORKED BONE AND IVORY (ILLUS 23)

All the worked bone and ivory objects were from deposits associated with the final occupation and abandonment of Niddry (Phases 5 & 6), in the late 17th or early 18th centuries. The comb fragments (SF2954 & SF 3297), knife handle (SF963) and button (SF409; not illustrated) are not closely datable. Their crude workmanship contrasts with that of the ivory cylinder (SF837), probably a needle-container; this resembles a 17th-century example from Cruggleton Castle, Galloway (Ewart 1985, 67, fig 32.26).

Table 11 Worked bone and ivory

Find number	Material	Description	Object	Find spot
2954	Bone or ivory	Fragment of end, teeth of uniform length: Burnished	Double-edged comb	Midden in SW turret
963	Antler	One end sawn flat, the other trimmed to slope to the iron blade fragment, held by a nail through the irregular cylinder. Worn, unpolished	Knife handle, with fragment of blade and tang	Topsoil over E barmkin
837	Ivory	Hollow cylinder with one end rounded and the other broken, with screw threads	Needle case	Topsoil over the E barmkin

METAL OBJECTS

C Aliaga-Kelly

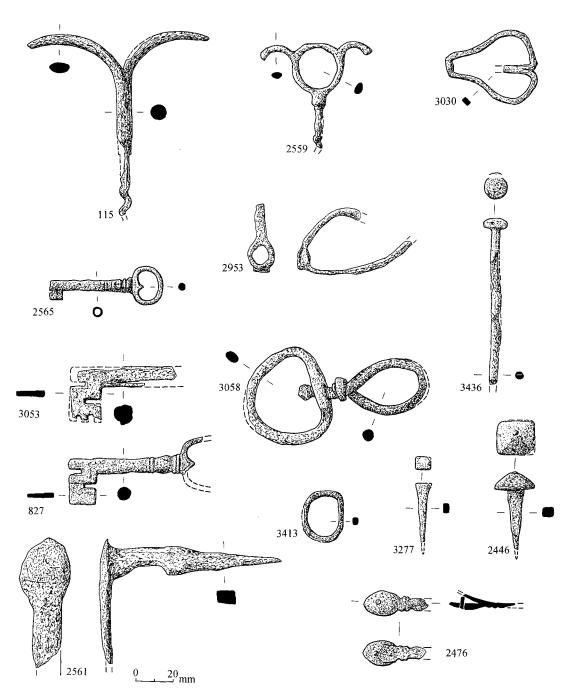
with comments by D Caldwell, B Ellis (the spurs) and T C Pegler (the pistol)

Iron (illus 24-26)

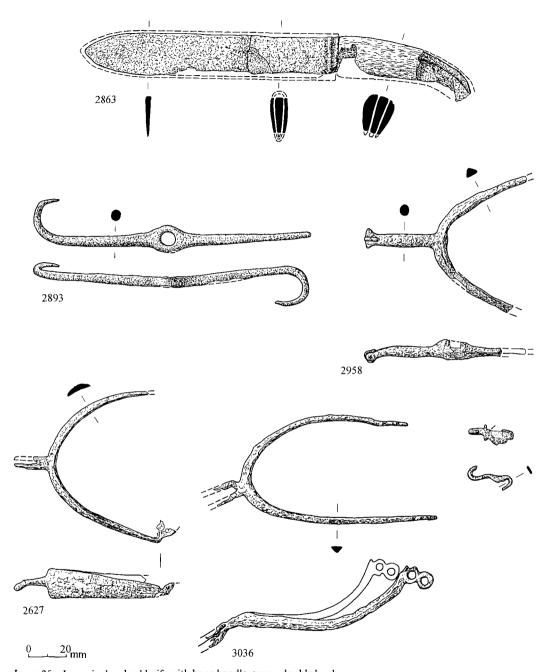
The iron objects were fragile when found; most objects have deteriorated since then and are now in poor condition. The items ranged from fragments of nails and broken strips to furniture fittings and possible weapons. Most were from the late (Phase 5) midden and rubble deposits overlying the site and only significant objects are discussed in detail.

Nails and nail fragments were scattered extensively throughout the latest deposits and account for three-quarters of all iron objects. Over half of these were found in deposits overlying the outer yard (Phases 5 & 6), suggesting that here nails were systematically removed from timbers which were to be reused elsewhere.

Ten horseshoe nails could be distinguished by their flat shanks and the shapes of their heads. One with a 'fiddle-shaped' head may have been early since it was found in deposits underlying the secondary paving (Phase 5) in Structure F. All the others had rectangular heads. The surviving half of one horseshoe, with three nails remaining, was heavier than another, complete horseshoe. Despite this, both had similar dimensions, indicating different breeds of animal, for different types of work. A third fragment was smaller than the others and was possibly for a pony (illus 26). A swivel-ring for a harness (illus 24) was found in the same context as the



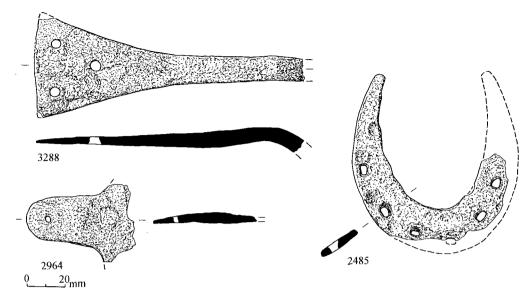
ILLUS 24 Iron: corkscrews, keys and fine ironwork



ILLUS 25 Iron: single-edged knife with bone handle, spurs, double hook

heavier horseshoe fragment. The other possible swivel-rings or ring fragments were of a lighter type.

Of three spurs recovered (illus 25), one was comparable with examples from deposits associated with Civil War activity at Sandal Castle, Yorkshire (Ellis 1983, 253–8, fig 11.10, 20);



ILLUS 26 Iron; hinge, hasp, horseshoe

the other two may be of mid to late 17th- or early 18th-century date. In spite of considerable damage from corrosion, traces of tin plating survived on two of the spurs.

Iron weapon parts included an arrowhead (since lost) and a musket scourer. The scourer was in the form of a bolt, hollowed at one end and split into three parts at the other. It would have been fitted to a ram rod and resembled an example found on the site of a 17th-century English settlement at Martin's Hundred, Virginia (Hume 1982, 66–7). A heavy keyhole-shaped object may have been part of a wheel-lock mechanism; it was finely finished and had a square central perforation.

Amongst the items of personal dress was a belt-hanger. This can be compared with examples in mid and late 16th-century portraits; one is worn by Henry Stewart, Lord Darnley, in a painting in the Scottish National Portrait Gallery (PG 2279). No datable characteristics were visible on the three buckles (illus 27), which were variously round or D-shaped.

A scythe blade and two corkscrews are notable because of their rarity in this period. The scythe blade compares with examples of mid 17th century date from Basing House, Hampshire (Moorhouse & Goodall 1971, 44, fig 20.71, 72). One of the corkscrews (illus 24) was from a (Phase 5) deposit and both may date to the late 17th century (R Murdoch, pers comm).

One knife, which was found complete with its decorated bone handle (SF2863: illus 25), may have been imported from the continent of Europe. At present, no comparison is known in Scotland for the broad, single-edged blade, or for the slight internal curve, indicating a chopping or hacking function. An X-ray revealed a perforated bar with nails, to strengthen the handle. The square-sectioned handle of another knife (the blade was not recovered) was particularly fine, with moulded decoration and recesses for decorative bone or ivory scales. The broken whittle-tang blade of a third knife is of a type which was in use throughout the later medieval and post-medieval periods.

Fragments of door furniture, found widely scattered over the site, include a hinge-mount with its lead plug remaining, as well as three nails with distinctive pyramidal-shaped heads (14 mm square) which were probably decorative door studs. Two large keys, probably door keys,

were both broken; a third, smaller but complete key would have been suitable for a chest or cabinet (illus 25). Other furniture fittings or appliances (illus 24) included a hasp, a smaller hinge and hinge pin (possibly for a cabinet or window shutter), and a heart-shaped object which was probably a handle, of typical 16th-century type, for opening chests or window shutters (Small 1901, pl 57). One small hasp (SF2964), with a perforated, round end, could have secured a chest or small cabinet (illus 26). Perforated fragments of strip metal probably represent strengthening ribs for a chest; and on a smaller scale, a curved strip with adhering fragments of copper alloy is likely to have strengthened a metal container or box.

A bar, bent into an L-shaped hook (SF58), remained *in situ* in the rear of a fireplace in the second storey of the north wing; two similar examples were found in the fill of the south basement. These could have been mountings for other fireplace furniture, such as a swee, or held meat or fish for smoking.

No obvious comparisons are known for two objects of thick wire, with central swivels and hooks at each end (eg SF93: illus 25). These are light, narrow gauge objects, too thin for use as hooks in a store or kitchens.

The rubble fill of the western subdivision of the west room in Structure E (Phase 5) contained fragments of thin iron plate, along with an irregular spiked object which may have been a rough-out for a nail. The scythe-blade from the adjoining eastern subdivision had been repaired with an iron strip. These combine to suggest tenatative evidence for metal working in this building, possibly even a smithy or metal workshop.

Table 12 Iron

Find number	Description of object	Interpretation	Find spot
115	Screw-shaped wire with curved attachments and loop	Corkscrew	Room in W wall of Phase 5a extension
2559	Screw-shaped wire with curved attachments	Corkscrew	Deposit of roofing slates SW of the castle
3030	Heart-shaped, thick, flat wire	Cabinet or shutter handle	Rubble in W barmkin
2565	Small key with decorated shaft	Key for a cabinet or chest	Phase 5a SW midden
3053	broken bar, thick cut plate attached	Fragment of door key	Deposit I E barmkin
827	Broken loop on bar with thick, cut plate attached	Fragment of a key for a door	Deposit in S barmkin
2953	Broken, curved strip with perforation	Light swivel-ring	Midden in SW turret
3058	Ring with bar through ring with perforation	Harness swivel-ring	Phase 5a SW midden
3413	Rectangular wire shape	Buckle, lacking pin	Phase 5a SW midden
3436	Nail with flat shank and broad, oval head, tip missing	wood nail	Fill under Phase 5a surface in Structure F
3277	Nail with flat shank and rectangular head, tip missing	Horseshoe nail	Rubble over Structure H
2446	Nail with square, pyramid-shaped head, tip missing	Door stud	Rubble over Structure H
2476	Small oval, with thin strip attached to flat rear	Belt-hanger	Rubble in S barmkin
2557 (not	Triangular blade with riveted bar	Scythe blade	Trample over floor of Room 2b
illustrated)	and strip 419 mm long by 71 mm maximum	·	of Structure E
2863	Single-edged, broad bladed knife with bone handle	Possible hunting knife	Rubble over Structure H
2893	2 pieces of thick wire with a central swivel and hooks at each end, at right angles to each other	No parallels known	Phae 5a SW midden

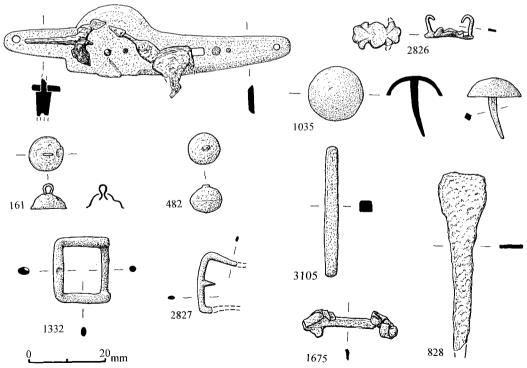
2958	Tin-plated, curved, flat bar with drooping rowel and part of a buckle	Spur	Rubble fill of S barmkin
2627	Curved, flattened D-section bar with long rowel and 3 fragments of buckle and 1 of attachment rings	Spur	Midden in SW turret
3036	Bent, triangular-sectioned bar, with badly rusted rowel and attachment rings	Spur	Rubble deposit in N midden
3288	Y-shaped, flat, 3 perforations	Door-hinge hasp	Rubble outside W barmkin wall
2964	Broken, perforated, hinged	Furniture hinge	Rubble outside SW turret
2485	Thin, well-shaped, flat	Horseshoe with 6 holes	Deposit in E barmkin
2561	L-shaped bar	Spike with folded end	Fireplace, third floor

Copper alloy (illus 27)

Most of the copper alloy objects appear to have been discarded after damage or loss, but were evidently of a uniformly high quality. All of these came from Phase 5 deposits. The significant examples are described here.

A complete bell and the two bell fragments (SF161 & SF482) could have been worn on clothing or horse harnesses, although they are small enough for a hawk. Like the gilded harness fitting (SF2826), they evoke people of wealth and status, hunting at Niddry in the 17th century.

The brass and iron flintlock plate (SF3356), with its distinctive drooping lower edge, is a particularly unusual find. The only comparison is provided by a group of four cavalry pistols



ILLUS 27 Copper and lead: pistol-mechanism, harness bells, tinned harness fitting, buckles, furniture stud, lead ingot, knotted came, handle

from Littlecote House, Wiltshire, now in the Royal Armouries (Royal Armouries XI [unpublished catalogue], 5430–3, 5435–8). Although the plate from Niddry was plain, the complete pistols from Littlecote bore marks of the Worshipful Company of Gunmakers on their barrels and were manufactured in London before or during the Civil War (T C Pegler, pers comm). The plate and mechanism of the Niddry piece were incomplete. It was recovered from rubble and soil (Phase 5b) overlying the outer yard.

The stud (SF1035) may have been a fastening for leather upholstery.

Table 13 Copper alloy

Find number	r Material	Description	Object	Location
3356	Brass with iron fittings	Sub-oval, plain with chamfered edges, v-section rectangular pan on top edge and a semi-circular extension on lower edge	Flintlock pistol plate and mechanism	Soil and rubble over Structure H
161	Brass	Half of a sphere, with a wire look through perforation	Half of a harness or hawk bell	Deposit in E barmkin
482	Brass	Spheroid, cast in one piece, with a hole through the top	Harness or hawk bell	Topsoil over E barmkin
1332	Bronze	Rectangular, slightly curved, lacking a pin	Belt or harness buckle	E midden
2827	Bronze	Fragment with spike and two edges, one curved	Shoe buckle	Rubble over Structure H
1035	Bronze	Hemispherical head, with bent spike at the rear	Furniture stud	Deposit in E barmkin
2826	Gilded bronze	Oval with two bent pins on the back	Harness mount	Rubble over cobbled yard

Lead and lead alloy (illus 27)

Most of the lead objects derived from late, post-demolition deposits (Phases 5 & 6). A lead ingot (SF3105), found in a deposit pre-dating Structure H (Phase 5), could have been lost during an early phase of building work. In contrast, fragments of window cames (eg SF1675) and sheet lead, with the plugs for iron fittings, were probably lost or discarded during systematic stripping of demolished courtyard buildings.

Four musket and two pistol balls were found. The two pistol balls were from deposits associated with the main rebuilding phase at Niddry (Phase 5). The musket balls, one of which had impacted, were for use in musket and fowling pieces of the 18th and 19th centuries (S Wood, pers comm).

Table 14 Lead objects

Find numbe	r Material	Description	Object	Location
3105	Lead	Plain, long rectangle, with square cross-section	Ingot	Soil cut by Phase 5a Structure H
1675	Lead	Flattened, short strip of lead, both ends tied and knotted	Scrap window cane	Deposit in the E barmkin
828	Lead	Broken, pitted flat strip with wider rectangular end	End of a handle of spoon or fork	Deposit in E barmkin

WORKED TIMBER

C Aliaga-Kelly

The worked wood, mainly fragments of skirting board or panelling, were all recovered from the backfilled well. The 54 pieces of worked dark oak included 22 offcuts, and seven broken planks, but only three pieces with fine working. These were finished with a semi-roll and flat surfaces of different thicknesses. Although they were broken, they were evidently from the same object and resemble the strapping of a chest in the St Andrews Preservation Trust Museum (STAAPT 018), thought to be of 17th-century date. The fine decoration and smooth finish of a fragment with an ogival curve on the long edge was reflected in the regular spacing of the nails, which were also smoothed flush with the surface. The chamfered short edge indicated that it was from the corner of a piece of furniture or panelling. Other panelling included three fragments of similar thickness, with one roughly smoothed surface, one edge tongued and one with a groove.

There were 10 wine barrel base fragments and four staves. One complete stave came from a barrel up to 1 m high, while the base fragments suggested diameters of 0.35 m and 0.5 m.

Two wooden plugs or 'dooks' for attaching lathes for panelling or plaster survived *in situ*, one east of the north door of the second storey and the other above the west fireplace of the third.

STONE OBJECTS

C Aliaga-Kelly

with reference to drawings made by the Royal Commission (RCAHMS)

Architectural fragments (illus 28)

The stark appearance of Niddry today conveys little of its former embellishments. The tentative reconstructions offered here (illus 31 & 32) combine evidence from extant or *in situ* stones, fragments recovered by excavation and descriptions or drawings of the tower house made by earlier fieldworkers (Archer 1835; MacGibbon & Ross 1887; Seton 1896). Amongst these, Seton (1896, 172, 803–4) recorded stones, since lost, with coats of arms and intials.

Sixty-nine stones were found in on-site rubble deposits and another 40 had been reused in Niddry Castle farm. Some were of the buff sandstone used in construction of the tower house (Phase 4) and others were of the dark blue sandstone used both in some of the earliest stone buildings (Phase 3) and in later, 18th-century embellishments (Phase 5). Both types of stone were available within 10 miles of Niddry (N Ruckley, pers comm).

Two fragments of armorial bearers were recovered and could have been part of a Seton coat-of-arms, possibly set into the recess at the top of the east wall or positioned above the south gate through the barmkin wall, as at Craigmillar Castle, near Edinburgh.

Seven fragments were from dormer window pediments, indicating that there were at least three dormers originally. Drawings by Archer (1835) and MacGibbon & Ross (1887, 325, figs 276 & 277) depicted the surviving elements of a highly unusual pair of deeply-splayed dormer windows at the east side of the tower, with stout roll-moulded edging and monograms inscribed over the openings. Four stones from this window were found in the rubble at the east end of the south wall of the tower house. Fragments with the initials G, S and H correspond to those details described by MacGibbon & Ross (1887, 324) and Seton (1896, 172–3). The proposed reconstruction is based both on these stones and on the documentary evidence (illus 31).

Few sills and lintels were found, but stones with simple chamfers and checks compare with those still in situ, while several stones provide constructional details such as slots for glazing frames and sockets for hinges, bolts or bars. A lintel or sill of a window 0.16 m wide and with a simple chamfer was built into the

west barmkin wall (Phase 4), although it originally came from a Phase 3 structure. The chamfered, lintel reused as a threshold in Structure J (Phase 5), compares with other late 16th-century examples.

Three angled blocks resemble those remaining on the corbels of the tower house (Phase 4), supporting the ashlar of the east wall. Seventeen of the complete and fragmentary corbels found were similar to those *in situ*, inside and outside the tower house. More elaborate two- and four-round corbels were found, unlike any others at Niddry, although one of the two-round corbels had been re-used in Phase 5 flooring, suggesting that it had come from a Phase 4 structure. A cannon-shaped spout, found in the well, is similar to one remaining in the east wall.

Two triangular blocks of dark grey sandstone, with a roll on the apex, were found in the well, as was another square block, of buff stone. All were finished in a similar manner and could have been part of a gable head, while a broken stone sphere from the rubble in the south basement, could have been from a finial.

A block with faceted surfaces and a square socket (illus 28) resembled a stone with similar carving on the corbel level of the north-west corner tower of Linlithgow Palace, but its function is not known. It may have formed part of a stair, the socket being designed to house a newel post.

Four curved pieces of buff sandstone, one from the north side of the tower, may have come from a bartizan on the north wing (Phase 4); another seven curved blocks were probably from one of the extension bartizans (Phase 5). Eight fragments of newel stair could be associated with the L-plan extension, as could two curved blocks with window roll edging which may have been reused in the extension of the newel stair, based on the evidence of the 19th-century illustrations (*ibid*). There were also jambs with elaborate roll and angle fillets, which could not be related to specific positions in the extension.

Evidence was found for at least two or possibly three fireplaces which had been removed. Four buff sandstone jambs recovered from rubble deposits were very like those of a fireplace in the west wall of the fourth storey (Phase 4), while two lintel slabs and 11 jambs, with angle hollow with fillet and round edge, were identical to those of a surviving fourth-storey fireplace.

Built into Niddry Castle Farm was a doorway of 16 jamb stones and a lintel, with hollow fillet and edge finish, identical to the surviving door jambs of the L-plan extension to the tower house.

Seven curvilinear blocks were found in the well. These could be arranged to form a circle of 1.8 m diameter, similar to that of the well shaft itself, and are likely to have formed part of an upper lining. These were found with four fragments from a curvilinear slab of fine white sandstone, which could also be projected to form a circle of 1.8 m diameter. This was probably part of the top of the well. Eight fragments of hollowed stones could be identified as fragments of gutters, a slop-sink and a layer basin.

A fragment of dark blue sandstone, carved with radiating lines, was probably an unfinished sundial; this was found among a mass of chippings of the same sandstone, suggesting that much stone finishing was carried out on site.

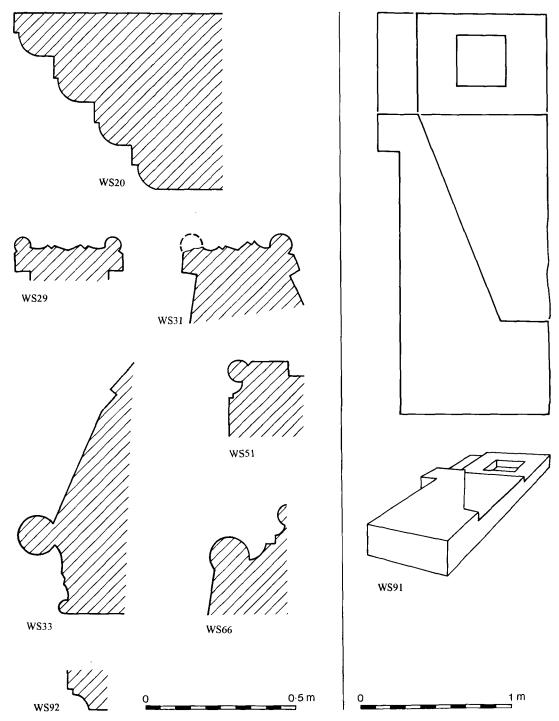
Roof slabs

Three kinds of stone were used as roofing material: slabs of grey-brown shale or grey-green sandstone of local origin (66% of fragments), and a dark grey-blue slate (34%) which probably came from the Southern Uplands (N Ruckley, pers comm).

None of the 203 roof slabs was complete and none was found *in situ*. Only 100 could be measured; all these were 15 mm thick, varying from 100 mm to 350 mm wide, by 300 mm to 400 mm long. The shale and sandstone slabs had circular peg-holes and was probably the cladding for the original roof of the tower house. The slate, which was not local, and probably related to the last phase of roof repair, had smaller, sub-rectangular perforations for nails.

Archive catalogue

The archive of the project records at the National Monuments Record of Scotland (RCAHMS) includes a catalogue of all architectural fragments from the excavation.



ILLUS 28 Architectural fragments: various roll mouldings; socket stone (for a stair newel?)

DISCUSSION

THE SEQUENCE OF DEVELOPMENT

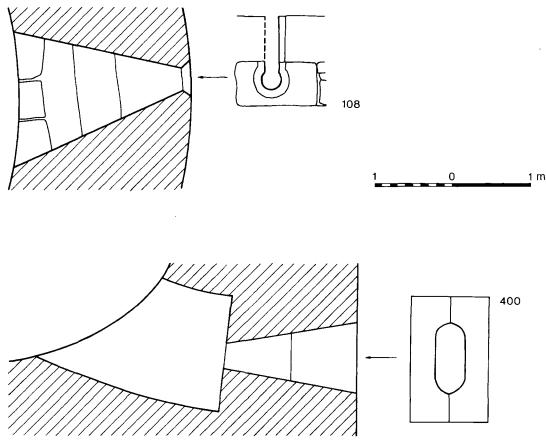
Before excavation, Niddry Castle was thought to have been a single-period tower house of the 16th century. However, it is now clear that there were many building phases, three of which are represented in the present tower house: the main building phase of the early to mid 16th century (Phase 4); rebuilding and upper extension with strengthening of the defences in the later years of that century (Phase 5a); followed by reduction of the barmkin and emparking of the surrounding lands in the 17th century (Phase 5b).

Remains of the earliest phases at Niddry are fugitive (Phases 1 & 2), but enough survives to indicate a timber kitchen and hall may have existed, perhaps from the late 12th century. These may have been similar to arrangements at Ellington Thorpe (Tebbutt 1971, 37-8) or the timber phase of Sandal Castle (Mayes et al 1983, 304, fig 6).

In Phase 3 there was a realignment of the buildings. Structure C1, probably a ground-floor hall, was a large oblong building in mortared stone, c 13.8 m north/south by 6.4 m east/west. This length-to-breadth ratio of roughly 5:2 is comparable with other medieval hall buildings in Scotland, such at 'Ha'ton Hall' (5:2), on Lumphanan Motte, Aberdeenshire (Talbot 1976), and Hailes Castle (9:4), East Lothian (Simpson 1948, 4, fig 1). A sill or lintel with a slight chamfer was reused in the construction of the west barmkin wall (Phase 4). This derived from a window 0.16 m wide, a dimension which compares with surviving windows in the Wellhouse Tower of Edinburgh Castle, dated to after 1362 (RCAHMS 1961, 230). Such a late 14th- or possibly 15thcentury date would be appropriate for an early hall at Niddry Castle. Although the full plan of the manorial structures at Niddry has not survived, Structure C1 may have been at the west side of an open courtyard, with Structure C2 on the north side and a well at the centre. The wall abutting the south side of Structure C1 may have been an enclosure wall which was not completed.

It seems probable that the tower house was substantially built by 1513. The barmkin wall which resulted from major works in Phase 4 proved to be the most impressive element of the castle, being well built, with 'inverted keyhole'-type gun-loops 1.5 m deep (illus 29). Zeune (1992, 70-1, Table 6) has suggested that gun-loops of more than 1 m deep date to the late 15th century. The surrounds of the west fireplace on the third storey were of Zeune's (1992, 27, fig 2) Type F3-H, also of the late 15th century. This was a period when Lord Seton had to hand over the 'toun' of Winchburgh to the king and his resources may have been depleted in these years; in any case, building work was not completed until 1513 (Seton 1896, 124). There are no signs that the work was interrupted: no changes of plan or building style are evident and the tower house and barmkin castle were of a unitary construction.

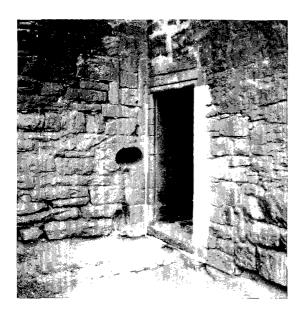
Later in the 16th century, further works were undertaken. It was during this stage that the re-modelled entrance and the adjacent gun-loop of wide-mouthed type (Zeune 1992, 80-1) were inserted to meet the need for improved defences (illus 30). A context for unrest can be established, since Seton and Winton castles were both denied to Lord Seton by the English occupation of East Lothian from 1547 to 1560, during the 'Rough Wooing'. Consequently, only Niddry was available to him and probably became the lordly residence during this period. There was also another circumstances favourable to this development. According to Maitland (1829, 41), in 1547 Cardinal Beaton gave the fourth Lord Seton as a temporary gift 'in feu of lands at Kirkliston, Inchmauchan, Catelbokis together with the office of justiciary in all the lands and regalities pertaining to the said archbishopric'. Beaton was killed in 1547 and thus the gift would have become permanent. This unexpected gift of lands in West Lothian, along with Lord Seton's



ILLUS 29 Gun loops: deep inverted key-hole gun-loop from the south-west barmkin tower and wide-mouthed gun-loop inserted beside the remodelled entrance to the tower house

enforced residency at Niddry, would have encouraged him to undertake alterations, adding furnishings which would raise the manorial castle to Lordly status. This is recorded by Maitland (1829, 41) as the episode when the fourth Lord Seton 'repaired and built a great part of Westnetherie'.

Further works were undertaken by the fifth Lord Seton in the 1560s. According to Seton (1896, 172), a stone bearing the date 1567 'surmounted the east window' indicating that the fourth-storey extension was built during Phase 5a. Additions to the courtyard buildings and the construction of an outer yard were also of this phase, as was the smaller fireplace inserted into the third-storey west fireplace (although the tin glazed tiles are of a much later date, suggesting that minor refurbishments extended well into the 17th century). Surprisingly, only two windows in the tower house were secondary insertions of this period, both on the second storey, replacing the east window of the north wing and cutting through the fireplace in the south wall. As the roll moulding on the surrounds of the former is like the roll of the jambs of the re-modelled entrance, door and window appear to be contemporary. The new south window may have been later, like the insertion of the early 17th century at Rosyth Castle, Fife (RCAHMS 1933, 156–7), and was possibly part of a later refurbishment plan which was not completed. The alterations probably included the addition of relief-moulded tiles in the oratory and the Flemish tiles in the north wing.



ILLUS 30 The remodelled entrance with rolled mouldings and, adjacent, a wide-mouthed gun loop below a blocked window

These can be compared with the surviving tile floors in Linlithgow Palace (Kerr 1881), although those from Niddry are the first to have been found in a tower house. Like the exotic glass and the other evidence of fine furnishings, they reflect the readiness of the Setons to spend substantially on their abode at Niddry.

THE ORATORY

The Seton family were recusant Catholics (Leith 1889, 178–80) and the discovery of an oratory on the second storey at Niddry was not unexpected. Indeed, documentary records attest to the presence of Catholic clergy and the celebration of Catholic rites at Niddry (Macneill & Nicholson 1975, 205–6). The marriage of Margaret Seton to Claude Hamilton, Commendator of Paisley, took place at Niddry on 4 August 1574 (Seton 1896, 201). The obliteration of all visible traces of the oratory could be evidence either for the Setons eventually conforming to the Protestant church or for later building modifications by the Hopes.

Comparisons for the chapel or oratory are few. Though largely destroyed, it was probably similar to one in Borthwick Castle (Small 1901, pl 19). As most Scottish castles were built prior to the Reformation, it is curious that so few oratories have been identified. They need not all have been as at Towie Barclay or Affleck, Aberdeenshire (MacGibbon & Ross 1887, 251–2). Indeed, some oratories may simply have comprised portable furnishings or chambers without distinguishing details. Thus, for example, the oratory at Tolquhon was initially described as a safe by MacGibbon & Ross (1887, 299). At Niddry, the altar table was almost entirely removed and the recess holding the piscina was blocked. Similar drastic alterations may have obliterated evidence for oratories in other Scottish castles.

DEFENSIVE AND STRATEGIC CONSIDERATIONS

The demolition of the Phase 3 courtyard structures and their replacement with the Phase 4 tower house and barmkin sesems out of proportion to the manorial status of Niddry at this time.

However, comparison with Craigmillar, for example, which overlooks the routes between Dalkeith and Edinburgh, or with Hatton, which overlooks the routes between Lanark and Edinburgh, show that Niddry too was close to important routes, in this case between Linlithgow, Bathgate and Edinburgh, and there were extensive views in all directions from the tower house. Consequently, the similar plans of all three castles, along with the provisions for early artillery, suggest similar defensive roles, in addition to their seigneurial or manorial ones.

No evidence has been identified for early ordnance at Niddry, but the spectacle of the corner turrets and gun-loops would have been very impressive. The corbels with two and four rounds could have been used to support defensive machicolation platforms, either above the gate or over the entrance to the tower house, as at Preston Tower, East Lothian (RCAHMS 1924, 101). The south and east prospects of the castle, with corner turrets at the barmkin wall and the tower house rising above, would themselves have been a statement about the strength and power of the owner.

The strategic siting of Niddry was vindicated by its role in later events, in the 1570s, when it was used as part of the supply route to Mary Queen of Scots' garrison at Edinburgh Castle (Burton 1878, vol 2, 147). Its defensibility and strength were reflected in successful resistance to two sieges in 1572 (Thompson 1825, 105–7; Mackay 1899, 281–3), when presumably the barmkin was still intact. In a much later incursion, an English army spent the night of 14 September 1650 at Niddry (Gaunt 1987, 208), perhaps accounting for the brass flintlock plate found in the outer yard.

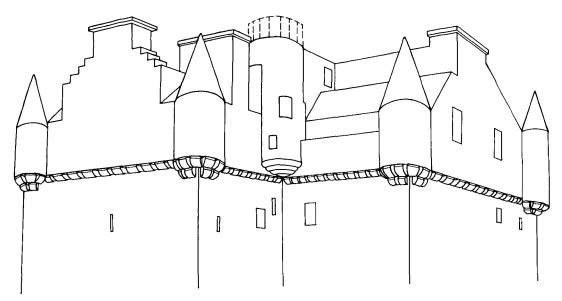
A LORDLY HOUSE OF THE SCOTTISH RENAISSANCE

Illustrations of Niddry by Archer in 1835 (illus 13) and MacGibbon & Ross (1887, 324–5, fig 277) show a pair of dormer windows of unusual design at the east end of the south wall, a rectangular recess above the east window, a thickening of the wall on the north side of the east wall, along with an extension of the newel staircase of two storeys, with a door to the north, two windows and some probable lines of roof-raggles. These details were also recorded by the Royal Commission (RCAHMS 1929, fig 249).

Such additions to Scottish tower houses were common in the late 16th and early 17th centuries. Two storeys were added to the wall-heads or roof-lines at Glamis (Slade 1992, 234, fig 4), Castle Fraser (Slade 1978, 251–6, figs 4 & 5), Spedlin Tower, Dumfriesshire (MacGibbon & Ross 1887–92, vol 2, 49) and Preston Tower, East Lothian (RCAHMS 1924, 100–2). These examples suggest the corner bartizans at Niddry could have been two storeys in height, with a balustraded open platform, accessible from the stair. The low roof raggle visible behind the northwest bartizan of the north wing indicates that there was probably a small stretch of roof between the bartizan and the wall of the extension, as at Midmar (Gillespie 1980, pl 38). A stone sphere, which could have embellished the top of the extension was found in the castle basement. As the door from the stair-extension opened to the north, there may have been a platform with a balustrade on the west side of the north wing. A photograph taken in the 1920s (RCAHMS 1929, fig 248) shows a possible line of steps extending up, eastwards, possibly providing access to a platform on top of the stair extension.

The conjectural reconstruction of parts of the roof head proposed here (illus 31) is based both on the evidence of surviving stones and on these early illustrations of Niddry.

An extension of ogee profile, with a central window, topped the north-west tower of the Palace of Holyroodhouse (Hay 1984, 200, fig 79) and is the kind of construction that could have influenced the design at Niddry. The splay of individual windows broadened from 1.15 m to 1.4 m

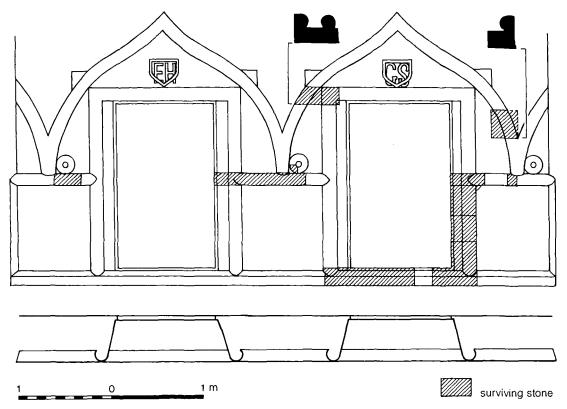


ILLUS 31 Conjectural reconstruction of the roof and bartizans (from north-west), with the two-storey extension to the stair and possible balustrade

in width; they were 1.9 m high internally. Jambs and lintels were embellished with a plain roll moulding 0.15 m in diameter, providing framing, string-course and edging for the dormers. No recess for a glazing frame was visible, although some of the jambs had sockets which were probably for shutter hinges. Archer's drawing (1835) showed cannon-shaped gargoyles on either side of the individual windows, indicating subsidiary roofs leading from the dormers to the main roof behind. The overall width of the two dormers and the panels would have been 6 m. No parallels have been found for the broad roll embellishment and the double dormers appear to have been unique.

The depiction of the west dormer showed a monogram of an 'E', framed by a shield-shaped border, and it is possible that the monogram of the contemporary Lord Seton was inscribed above one window while that of his wife was above the other (illus 32). The first wife of the fourth Lord Seton was an Elizabeth Hay of Yester who died in 1542 (Seton 1896, 117, 803), while the wife of the eighth Lord Seton was an Elizabeth Hay of Errol, who died in 1645 (Seton 1896, 226), rather late in view of the use of the roll decoration. Thus, the 'E' on the west dormer probably commemorated Elizabeth Hay of Yester. The monograms on the dormer lintels were for G, S and H. The fifth Lord Seton, who died in 1585, married an Isobel Hamilton of Sanquar, so the H may commemorate her. Zeune's (1992, 11–12) dating of the use of wide rolls for doors and windows surrounds to the mid to late 16th century would correspond with both the record of building under the fourth Lord Seton and the date of 1567 for completion of building on the inscription over the east window of the extension.

Some comparisons are visible in a few French châteaux of the mid to late 16th century, where double windows are arranged in walls rising from machicolations, as at Valançay, Indre-et-Loire (Gobelin 1927, 176–7, pl 114–16) and at Sarrant, Maine-et-Loire (Gobelin 1927, 170, pl 101–2). The south face of the extension at Niddry is similar to that of four dormers of two storeys atop the late 15th-century château at Montsoreau, Loire-et-Cher (Chirol & Seydoux 1992, 125) and of three dormers on the early 16th-century château at Saumur, Indre-et-Loire (Chirol &



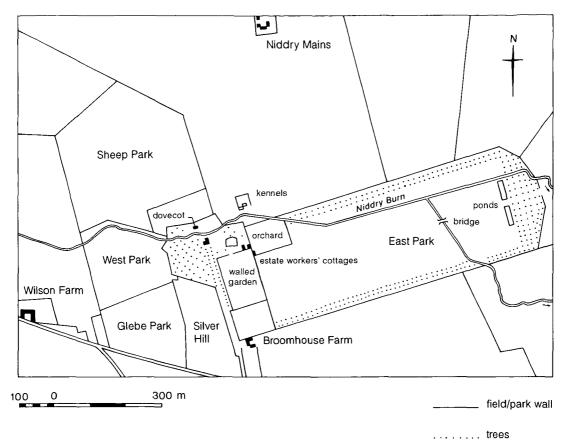
ILLUS 32 Reconstruction of the double dormers on the Renaissance extension to the tower house

Seydoux 1992, 159). However, none of these had rolled edge decoration of the window surrounds or semicircular hoods and there is no evidence to associate the owners or the builders with the Setons in Scotland, although the second wife of the fourth Lord Seton was French, a 'Marie Pieris' (Seton 1896, 117), and so it is possible that some influence came through the relationship between the families.

All this evidence indicates that the extension, along with much building work in the rest of the castle, was initiated by the fourth Lord Seton in the 1540s and was completed under his son, the fifth Lord Seton, by 1567, who made slight additions. The extension was part of an extensive scheme of alteration paid for by the lands gifted by Cardinal Beaton and initiated by Lord Seton's enforced use of the place as his principal residence between 1547 and 1560. Although the design was probably influenced by French Renaissance architecture and some details resemble those of other extensions of Scottish Renaissance style, the dormer windows appear to have been unique. It is interesting that the additions undertaken after 1560 at other Seton properties were unlike those now identified at Niddry, while no similar architectural embellishments at other Scottish castles can be seen, perhaps because of more extensive alterations.

PARKLAND AND GARDENS

Some information on the history of gardening at Niddry has already been outlined (Introduction, above). The Reid family supplied a succession of gardeners at the castle, from at least the mid or



ILLUS 33 The designed landscape around Niddry Castle (after Lesslie's map of 1759)

late 16th century (Hynd 1984, 282). An orchard is recorded in 1502 (Reg Mag Sig 2, 637–8, no 2995), and an orchard with open and enclosed gardens in 1548 (Reg Mag Sig 4, 54–5, no 222). Sibbald's (1720, 14) description of 'large parks . . . all well planted' and Lesslie's (1759) map of the Hopetoun estates attest to gardens and emparking which survived until at least the mid 18th century.

Some features may still be identified which are likely to pre-date construction of formal gardens at Niddry from the mid 16th century. Near the north end of the west enclosure wall, the walled garden partly overlies remains of a small terrace (3.5 m north/south). Two broad banks, indicating possible areas of cultivation, are visible on the slope to the south and north-west of the castle, while on the ESE side, a cropmark feature, 95 m east/west by 40 m north-south, is visible on aerial photographs (not illustrated).

The creation of a walled garden, avenues and parkland can be seen as part of the overall scheme of alterations and additions which was started in the mid 16th century. The transformation of cultivated farmland into parkland corresponds to the reduced economic or productive role of Niddry at this time, and its elevated social status as a lordly residence, at a remove from the cultivated or 'working' farmland.

The walled garden was laid out on a south-facing slope. Entered from the north, it was symmetrically planned, with recesses for stores or subsidiary buildings in the middle of the west

and east walls, and was probably for growing fruit trees and bushes, along with vegetables and herbs. The same dark grey-blue sandstone was used for the extension to the tower house (Phase 5a) and for the construction of the garden wall. Lesslie's estate map of 1759 (illus 33) depicts a nearby yard, with the orchard in a hollow on the north-east slope of the ridge, where it was protected from the prevailing winds. Lesslie's map also depicted a rectangular doocot on a small rocky hill, directly opposite the tower house on the north side of the burn, and a group of buildings marked 'kennels' on sloping ground north-east of the site (no longer extant). The East Park was a broad rectangular park, aligned ENE towards Kirkliston. Though there is now no surviving evidence of planting east of the house, the park was originally bordered by a double line of trees and, at its east end, a pair of reflecting-ponds was overlooked by a D-shaped plantation of trees. The gap between the ponds corresponded with a gap in the trees, aligned with a bridge over the Niddry Burn, which traversed the park. The watercourse was widened and straightened or canalized to aid drainage, and the stonework of a sluice is still visible where it was joined by a drain. The 'Stately Avenue from the east' described by Sibbald (1720) probably lay along the north side of the park, or may even have been carried through it. A second avenue, lined by sycamores, approached the house from the south.

The castle itself was the principal element in the overall plan, with avenues from the east and south aligned directly on the tower house; indeed, the large landscape window inserted in the south wall of the second storey was clearly intended to afford a view of the south avenue. Yet the house was not the focus of either the walled garden or the East Park. This underlines the paradox of the landscaping around Niddry, a site originally selected for defensibility and good communications, but by the 16th century requiring parks suitable for a Scottish Renaissance mansion. The attached lands were not of high quality, and once the Hopes became owners of two estates it was inevitable that they would move to a more suitable site, abandoning the costly works that were required at Niddry.

THE IMPACT OF THE HOPE FAMILY

The Hopes became owners of Niddry and its lands after 1676. Some luxury artefacts are of this period, including the bottle glass, the wine glasses with 'inverted baluster' stems, the decorated tin-glazed earthenware and the two corkscrews and appear to represent the period when the Hopes made Niddry their principal residence. Tin-glazed tiles in the secondary west fireplace on the third storey could not be closely dated, but may have been laid during this period, reflecting a new period of affluence and improvement. It is tempting to think that some of the furnishings of Hopetoun House which are evidently older than that building, such as the tapestries, were originally seen at Niddry.

The Hopes appear to have taken up residence at Hopetoun in 1702/3, before the new house was completed in 1720. Niddry then would have been reduced to the manor status (RCAHMS 1929, 211). After the demolition of the barmkin and associated structures, the tower house stood isolated within the surrounding parkland, with a sycamore-lined drive extending as far as the house. Perhaps it was still in use for estate management, but the lack of artefactual evidence later than 1730 indicates that occupation of the tower house does not appear to have lasted long. Lesslie's (1759) estate map shows that the gardens and orchard were maintained until at least the middle of the 18th century, however, and Niddry Castle Farm was probably built about this time.

Lead musket and pistol balls of 18th-century type were found in and around the tower house, suggesting that it was already ruinous by the end of that century. It was systematically

stripped of roofing slabs, timbers and lead and the newel stair was completely removed. The sealing of the well and the accumulation of byre deposits in the basement, along with the repairs to the walls after the collapse of the first storey vault, show that the remains of the castle became part of the working farm, now on the periphery of the estate.

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