At a Scottish Archaeological Forum meeting in Edinburgh in March 1975, John Gillam postulated that, contrary to received opinion at that time, not only did the Antonine Wall go through major changes in the course of its construction, but that its original design broadly mirrored Hadrian's Wall in its more developed form, with widely spaced forts and a regular series of fortlets equivalent to the milecastles (Gillam 1975). Further, he suggested that one way in which his hypothesis might reasonably be tested would be by identifying additional fortlets. With this in mind, while walking around the area of the fort during the first excavation season, the author was struck by the potential of a small, roughly rectangular, raised plateau lying immediately behind the line of the Antonine Wall some 80m to the west of, and 10m higher than, the position of the fort (Illus 3.1). As this was located within the guardianship area, permission was sought to test the hypothesis that it was the site of a fortlet and the

resulting excavation two seasons later took the form of small-scale, hand-dug trenches (Area Q) in order to minimise any disturbance to archaeological levels. Having confirmed the existence of a fortlet, further trenches were opened in the final season (1978) to determine its dimensions and the structural relationship between it and the Antonine Wall.

3.1 Rampart and berm

In the first instance, a trench c 1.4m wide was opened across the plateau running parallel to and c15m behind the line of the Antonine Wall rampart in search of the west side of the fortlet (Illus 1.4). Archaeological features became apparent after removing an overburden of 0.3m-0.4m of plough soil, though the fortlet proved to be located several metres further west than had been estimated. A second trench was then cut to the south, which was subsequently extended to join the first at right angles, to confirm the position of the south-west corner of the fortlet, and a further small trench cut



Illus 3.1 Topographic location of the fortlet (centre right) highlighted against the skyline from north of the Antonine Wall. The site of the fort lies between the trees to the left



Illus 3.2 Cobble base of the western rampart of the fortlet (QAD) from the north

to locate the line of the south ditch.

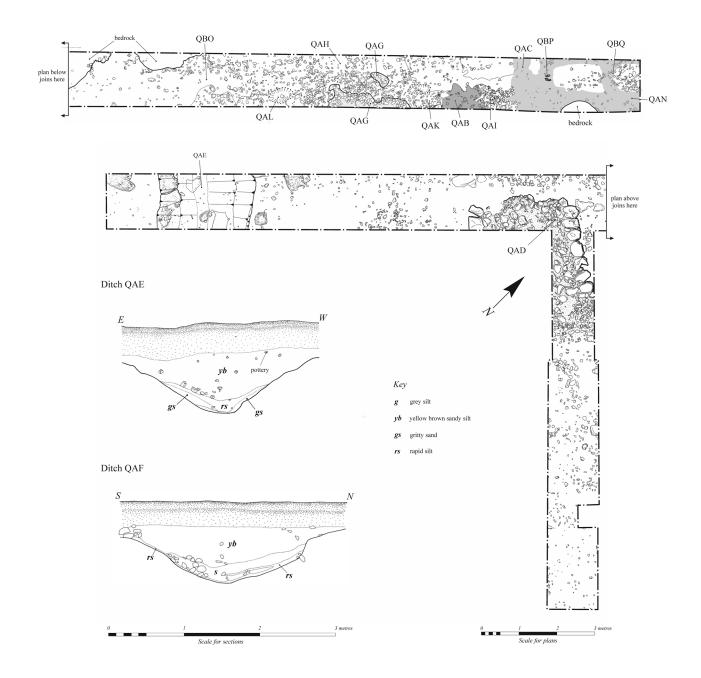
The rampart base (QAD) was 2.9m wide and made up of a rubble core, bounded on each side by a kerb of larger stones (Illus 3.2 and 3.3), surviving to a maximum height of 0.25m. No evidence of the turf superstructure remained and, indeed, part of the rampart base itself had been removed, presumably by agricultural activity, both on the north side of the first trench and on the outside of the south-west corner. Fortunately, the inner kerb of the base at the south-west corner did survive reasonably well and confirmed that it was rounded in the manner of a standard Roman fort rampart.

The following season a further c 1.9m-wide trench was cut just behind and parallel to the estimated line of the Antonine Wall extending out from the western side of the fortlet rampart to the ditch, with a second c 2.7m–3.2m-wide trench immediately to the north to check the relationship between the Antonine Wall and the fortlet at the point of intersection of the two ramparts. After removal of some 0.3m–0.35m of plough soil, a line of turves, visible as irregular grey-white blocks, clearly defined the southern edge of the Antonine Wall (QAW) and the eastern edge of the fortlet rampart (QAT). Each was exposed for a length of some 5m (Illus 3.4 and 3.5) and a width of up to 0.7m.

At this level the rear turf revetment of the Antonine Wall did not continue past the line of the fortlet rampart, but was clearly of one build with it. To further test this relationship, the turf was removed down to the cobble base of both ramparts at the point of their intersection. This served to demonstrate two things: firstly, that the kerbstones at the rear of the Wall did not continue across the junction with the fortlet, but turned at right angles to merge with its kerb; and secondly, that the kerbstones of both fortlet and Wall were not originally completely covered by their respective turf ramparts, but exposed, projecting some 0.1m to the rear in the case of the former and 0.2m in the case of the latter (Illus 3.6). In the limited area examined the kerbstones in both ramparts proved to be similar in form and size to those recorded in the earlier section across the rampart on the west side of the fortlet.

Up to four layers of turf could be detected in the section through the rear of the Wall (Illus 3.4) in the surviving depth of 0.33m below the plough soil, though no more than two were visible in the fortlet rampart in its surviving 0.2m. Samples were taken from both ramparts and analysis confirmed their identification as turf, while differences in their pollen content suggested that they originated from slightly different locations, that from the Wall being from slightly wetter ground (see 18.4, below). Beneath the leached organic surface, the core of both ramparts was made up of similar orange-brown sandy loam.

The berm between the fortlet rampart and its ditch was consistently wide, ranging from 5.7m on the east side to 7.7m on the west. Apart from a small



Illus 3.3 Plan of trenches across the interior of the fortlet and its western rampart and ditch, with sections of ditches on the west (QAE) and south sides (QAF)







Illus 3.5 Intersection of the turf ramparts of the Antonine Wall (to the right) and the fortlet (at the top) from the east at an early stage of excavation, showing burnt timber duckboards in the foreground

patch of metalling (see QAQ, below) on the south side of the trench midway between the rampart and ditch on the west side of the fortlet, surviving features on the berm were concentrated outside the north-east corner immediately behind the Antonine Wall, where an area of burnt timber boards or planks (QAS) was revealed. At least ten timbers could be identified running parallel to the Wall for a distance of some 3.5m and extending beyond the east end of the trench (Illus 3.4 and 3.6). They came right up to the rear of the Wall, overlying the kerbstones at its edge and apparently even running into the turf at its base. The timbers were most clear where they had been burnt in situ, but the example within the rampart of the Wall was apparent as a pattern of soil discolouration, as were two more examples extending the width of this duckboarding to at least 2.5m south of the Wall. The best-preserved burnt examples recorded in the early stages of cleaning suggested that the timbers were up to 0.14m wide and 0.1m apart, though some were clearly more closely spaced (Illus 3.5).³ Analysis of a charcoal sample indicated the timber was almost exclusively oak (see 18.3.4, below, Sample QAS). The timbers did not extend as far west as the small box cutting designed to examine the intersection of the two ramparts. The precise position of their western ends was not established as it was overlain by a discrete patch of clean orange clay loam, presumably derived from the partial collapse of the adjacent ramparts.

An extensive area of mixed orange-brown sandy loam (QAP), which extended out from the burnt timbers and across the more southerly trench, contained burnt material including occasional patches of reddened soil and much charcoal. A small test section was excavated approximately 1.5m in front of the fortlet rampart to examine the make-up of this layer and to obtain a sample of charcoal (QAX), which proved to be predominantly small twigs/branches of hazel and willow (see 18.3.4, below). The layer was between 80mm and 350mm in depth, though that irregularity suggests that the section may have accidentally cut across a gully or small pit whose extent was not defined. Situated approximately midway between the rampart and ditch and overlying this spread of burnt material was an irregular patch of metalling (QAQ) up to 1m wide that ran across the full width of the trench.



Illus 3.6 Intersection of the ramparts of the Antonine Wall (to the left) and the fortlet (at the bottom) from the west, showing the lower layers of turf, the merging of the kerb stones, the burnt timber duckboards and the rock-cut ditch in the background

The fortlet ditch was located and sectioned at three points, one on each of its three sides, providing sufficient evidence to restore its full plan outline (Illus 3.7). A slightly irregular alignment was originally proposed on the north-east side, but this was based on an error in the early plotting of where the underlying quartz-dolerite rock came close to the surface. The possibility of a second, outer ditch was investigated by placing an additional small trench on the north-east side. This extended examination for a further 9m beyond the rock-cut ditch. No trace of an outer ditch was found.

The profile of the ditch on the west side (QAE) was a wide V-shape, measuring 2.6m across and 0.77m deep down to bedrock from below the plough soil (Illus 3.3). Primary silt lenses represented an early rapid silting, followed by a filling of washed-in sandy silt, gravel and small stones. The ditch on the south side (QAF) was of very similar dimensions and fill, but more U-shaped in profile. That on the east side (QAR) closest to the line of the Antonine Wall was of less regular profile as it was cut through bedrock. It approximated to a V-shape but was rather larger, being 3.5m wide and 1.12m deep (Illus 3.4). Given the preservation of original surface levels nearby, this is likely to represent its original dimensions. A succession of thin layers of washed-in silt filled the lowest 100-150mm, succeeded by layers of orange and grey/brown silty loam totalling around 0.6m in depth containing larger stones, recognisable turves and occasional charcoal flecks. A sample for analysis taken from one turf confirmed this identification, and the pollen content showed strong similarities with that from the two rampart samples (see 18.3, below). Apart from those recovered during removal of turf and topsoil, most of the limited number of finds from the excavation of the fortlet came from the ditch sections, see 3.4, below). Some are recorded on the section drawings (Illus 3.3 and 3.4) and all came from the central or uppermost fills, including a coin of Hadrian from the interface between those two fills in the east ditch (QAR). Sherds of coarse ware from the same vessel were recorded in the sections through the ditch on the west and south sides.

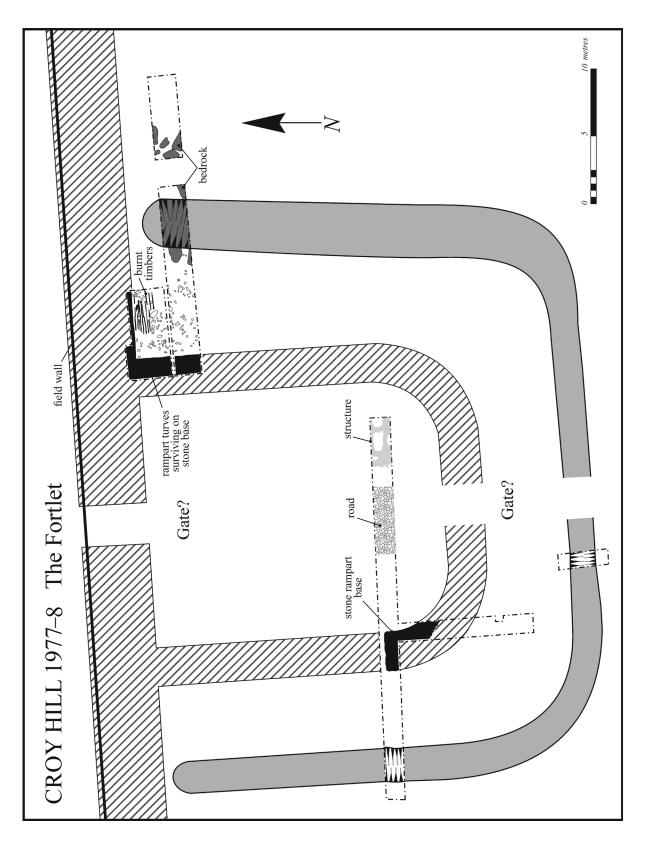
3.3 Interior

In order to adhere to the principle of minimum interference with the archaeological remains within the guardianship area, no features inside the fortlet were excavated. Indeed, trenching across the interior was undertaken only in the initial attempt to locate and define the extent of the fortlet when it was at first thought that it lay slightly further to the east. This resulted in a trench c 1.4m wide being cut across most of the interior in the centre of the southern half of the fortlet (Illus 3.3 and 3.7). Because of the constraints on full excavation, some of the feature identifications are more tentative here than elsewhere in the fortlet.

The central area of the interior was dominated by a surface made up of crushed stone and small cobbles across the full width of the trench for a distance of at least 6m (QAH). This presumably represented the general line of the central road metalling (Illus 3.3 and 3.8). It was partially overlain by an amorphous patch of burning (QAB) at the very eastern end and also by the fragmentary remains of a layer of small cobbles c 50mm thick (QAG) that survived towards the centre, predominantly on the south side of the trench, for a distance of c 2.2m. Further traces of cobbling (QAI) appeared partially to overlie one of the construction trenches (QAC) towards the eastern end of the trench.

Reasonably clear traces of timber structures were recorded on the east side of the metalling. A probable construction trench (QAN) some 0.3m-0.5m wide, filled with mid-brown clay loam, ran along the south side of the excavation trench for some 3.3m, culminating in a probable north/south construction trench (QAC) that was less clearly defined (Illus 3.3, 3.8 and 3.9). Immediately adjacent to the latter was another north/south construction trench containing a post setting (QBP) clearly demarcated by three small stone slabs set on edge. Parallel to this and 1.6m to the east was a further possible construction trench (QBQ). There were hints of a possible second east/west construction trench some 2.5m long parallel to, and c 0.8m north of, QAN at the very edge of the trench.

Other possible post holes (eg QAK and QAL), showing as sub-circular areas of mid-brown clay loam up to 0.5m in diameter, were postulated cutting through the metalling further to the west,



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Illus 3.8 General view of the interior of the fortlet from the east showing the probable central road (QAH) with traces of the upper layer of slightly larger cobbling (QAG) still visible protruding from the section on the left-hand (south) side. The cobble base of the rampart on the western side (QAD) is visible towards the top, while probable construction trench QAC is in the foreground



Illus 3.9 Interior of the fortlet from the east showing the probable construction trenches QAN and QAC; post setting QBP and possible construction trench QBQ are in the foreground. Road metalling (QAH) is visible at the top and additional light cobbling (QAI) centre left

but none were very convincing. Structural remains to the west of the metalling, where the mid-brown clay loam was undifferentiated except for bedrock outcrops, were even less well defined, though one post hole (QBO) was potentially identified cutting through the edge of the metalling (Illus 3.3).

3.4 Associated finds

- QAC, probable construction trench: sherd of coarse ware
- QAE, west ditch: part of hipposandal; 9 sherds of coarse ware, including amphora; sherd of mortarium (Illus 12.1, no. 2)
- QAF, south ditch: iron buckle (Illus 9.9, F15); 6 sherds of coarse ware; fragments of animal bone
- QAP, area of burning, west berm: 9 sherds of coarse ware; 2 nails; 14 hobnails
- QAQ, metalling, west berm: 2 sherds of coarse ware
- QAR, east ditch: coin of Hadrian; iron spike (Illus 9.9, F27); iron strip; nail; 26 sherds of coarse ware; fragments of burnt bone
- QAT, degraded upper level of fortlet rampart, east side: fragment of vessel glass; flint flake; 10 sherds of coarse ware, including amphora

In addition, an Andernach quernstone was found in a cutting through the Wall by the Glasgow Archaeological Society (GAS 1899: 62–3) some 84m west of the field dyke around Croy Houses, which would place it 5m–6m east of the fortlet's east ditch.

3.5 Interpretation and analogies

This limited investigation established not only the existence of a fortlet on this raised plateau, but its general characteristics. Most importantly for our understanding of the sequence of development of the Antonine Wall, it confirmed that its construction was contemporary with the building of that frontier, as is the case for all the other examples known, with the exception of those that actually pre-date the completion of the linear barrier (Hanson & Maxwell 1986: 93–5; Hanson 2020a: 205–8 and 211). Recent attempts to cast doubt on the evidence for that contemporary structural relationship from two fortlets are simply clutching at straws (*contra* Graafstal et al 2015: 59; Symonds 2018: 139), as at both Kinneil and Wilderness Plantation the fortlet

ramparts were of one build with the Wall (Bailey & Cannell 1996: 308; Wilkes 1974: 53).

The fortlet at Croy Hill may be restored as a long-axis type, enclosing an area measuring approximately 18.5m east/west by 22.0m north/ south internally, and is best paralleled at Seabegs Wood, Kinneil and Wilderness Plantation (Keppie & Walker 1981; Bailey & Cannell 1996; Wilkes 1974).⁴ Neither the north nor south gates were located, but they may be assumed to be central, as indicated by the location of the internal roadway. An earlier suggestion that the rear gate may have been offset was based on an error in plotting the areas where the underlying bedrock came up to the surface. Whether a north gate was provided at all may be questioned, as it would have opened onto a sharp drop down to the ditch, though an equivalent but more extreme position did not deter the builders of milecastle 37 on Hadrian's Wall.

The fortlet rampart was built on a cobble base 2.9m wide. This is consistent with widths of 2.8m at Seabegs and 3m at both Kinneil and Wilderness Plantation. Insufficient of the Croy fortlet rampart was excavated to confirm whether it was built entirely of turf or only with turf cheeks. The character of the rampart superstructure at other sites seems to have varied according to the availability of suitable material. Thus at both Seabegs and Wilderness Plantation it was entirely of turf, while at Kinneil it had an earthen core with a clay or turf revetment. Since the standard width of the base of the rampart of the Antonine Wall itself is 4.3-4.9m (Hanson & Maxwell 1986: 80), the lesser width of fortlet rampart base may indicate that it was lower in height⁵ or that it was not provided with a walkway.

The width of the berm around the fortlet at Croy Hill, varying from 5.7m to 7.7m, is broadly comparable with that from Seabegs (8m) and Wilderness Plantation (4.2m), but considerably less than at Kinneil (9m–13m). Compared to its closest parallels, however, the fortlet at Croy Hill is unusual in being provided with only a single ditch. Both Seabegs and Wilderness Plantation had two, though in the former case they apparently did not continue around the full circuit of the ramparts. Kinneil may also have been provided with two ditches, as was indicated when it was first discovered (Keppie & Walker 1981: 150–1), though only one was identified in the later, more extensive excavations. The dimensions of the ditch at Croy Hill, 2.6m–3.5m wide and 0.77m–1.12m deep, may also reasonably be compared to those at Seabegs (2.5m wide and 1m deep) and Kinneil (up to 2m wide and 1m deep), the slightly smaller dimensions at the latter perhaps the result of heavy truncation by agricultural activity. Both the ditches at Wilderness Plantation, however, were much deeper (1.9m), though comparable in width (3.6m).

The limited evidence from Croy Hill for the arrangement of the interior of the fortlet complies with what little is known from other sites, with a central roadway dividing timber buildings on either side. In all other cases elsewhere, however, these buildings appear to have been constructed on individual post holes. While some possible post holes were recorded at Croy Hill, the best evidence seemed to indicate the use of construction trenches, one containing a clear post setting. There is a potential parallel at Duntocher, where some possible shallow construction trenches were recorded (Robertson 1957: 24-7). The structural remains at Croy Hill could be interpreted as defining part of a narrow rectangular building with internal subdivisions, though perhaps over-provided with the latter in terms of any anticipated barrack-type structure. The recovery of a fragment of window glass from the topsoil (QAO) over the north-east corner of the fortlet hints at the provision of glazed windows. Any identification of structural remains is, however, tentative given the limited area exposed and the lack of full excavation.

The provision of extensive timber duckboarding, covering an area of at least 3.5m by 2.5m immediately outside the north-east corner of the fortlet in the lee of the Antonine Wall, is unparalleled. However, spreads of cobbles in exactly the same position were recorded at both Seabegs and Kinneil. The former was neither completely uncovered nor examined in any detail. At the latter, however, cobbles and gravel formed a base 2.3m by 1.3m enclosed by an L-shaped ditch or gully 0.7m wide by 0.45m deep. The feature was tentatively interpreted as provision for an external latrine, though there was also evidence of a hearth immediately outside it (Bailey & Cannell 1996: 315-17 and 340-1). The timber duckboarding at Croy Hill was clearly a primary feature, since it was partly bonded into the rear of the Antonine Wall rampart. This in turn would indicate that turf was stripped only from the line of the Wall, with its base and kerbstones effectively placed within a shallow cutting, leaving undisturbed the old ground surface onto which the duckboards were placed. The function of this platform was presumably to provide a levelled area of relatively dry, firm footing in the lee of the Wall at the base of the rampart. To what activity this relates is less certain, but given the clear indications of both intensive and extensive burning, assuming this was a primary rather than secondary association (see below), a function linked to cooking may be the most appropriate. So, too, at Kinneil, given the hearth attested nearby.

The projection of the basal kerbstones of the Wall beyond the rear face of its superimposed turf rampart is not a feature that has been widely noted, presumably because subsequent compression and collapse of the superstructure has made it difficult to observe the original line, as Robertson notes in relation to one of the better-preserved sections excavated in recent times at Tentfield (1964: 193). This phenomenon was, however, also recorded in a section on the west side of Croy Hill, where the sharp profile of the original rear face of the rampart had been preserved by the rapid addition of an expansion (GAS 1899: 76-8). To the east, however, where the use of narrow clay cheeks to revet the rampart was more common, these seem to have covered the rear kerbstones (Steer 1961: 94-95; Dunwell & Ralston 1995: 526 and illus 5).

The apparent outward collapse of the turf rampart, partially overlying the duckboards, and the presence of identifiable turves within the east ditch, may indicate that the fortlet had been deliberately demolished. Though the nature of the material identified in sample QAX (small twigs/branches) is more characteristic of fuel, the extensive burning at the rear of the Antonine Wall could possibly relate to demolition. Given the very limited sections that were excavated, the presence of a range of finds in the ditch fills, including pottery, shoes and various bits of ironwork, provides some further support for such an interpretation.

The ditches themselves show only one phase of use, with no signs of recutting, a situation paralleled at both Kinneil and Wilderness Plantation. Those two fortlets also provided clear evidence that the barrack buildings in their interiors had been cobbled over, though two lean-to structures at Kinneil may have continued in use, suggesting that the fortlets changed their function or perhaps went out of use while the Wall was still occupied (Wilkes 1974: 57 and fig 2; Bailey & Cannell 1996: 315 and 342). The presence of an upper phase of cobbling in the interior at Croy Hill (QAG/QAI) could support a similar interpretation, but it is insufficiently widely attested to confirm it and may simply represent a second phase of road surface.