Whiteadder

Historic Heart of the Lammermuirs

An Enclosure on Bunkle Edge

By Charlotte Douglas

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Introduction and Background

The availability of the LiDAR terrain model offered the opportunity to investigate again the enigmatic complex of earthworks associated with the forts of the Bunkle Edge. Now only traceable on the ground through dense forestry and bracken, the enclosures forming annexes to the defended enclosures at Marygoldhill and Dogbush plantation. The function- and indeed the date- of these features is not known, and only limited investigations have taken place to date (Strong 1988).

The earthworks are situated on Bunkle Edge, an 8km long ridge running broadly WSW-ENE between the Eye Water and Whiteadder. Bunkle Edge has a series of prehistoric forts and earthworks located along the summit of the ridge. Our work focussed on a sub-rectangular enclosure close to the Marygoldhill Plantation fort. Our excavations took place on the portion of the earthworks that lies within the Marygoldhill Plantation.

The enclosure is visible on the ground as a linear depression which partially encloses the fort, running for approximately 200m SE-NE, turning at a right angle to extend around 425m SW-NE and around 85m NW-SE. Entrances/breaks in the earthwork are suspected at its western end, on both the SE-NW and SW-NE stretches. The enclosure is generally considered to be an annex of the nearby fort.

Around 70m to the east of the enclosure ditch is another linear feature, seemingly bounding an area of rig and furrow to its east. This feature runs broadly SE-NW for around 90m, although its extents are most likely truncated by modern agricultural activity since the fields at either end are cultivated.
The enclosure is marked on the first edition Ordnance Survey map, dating to 1862.

Excavations were carried out at the site in 1983, following severe plough damage. Two trenches were excavated: the first was placed to target the corner of the enclosure, where it met the Black Dyke; the second focused on the Black Dyke itself - a pit alignment and non-continuous ditch to the NW (Strong 1988). The Black Dyke ditch was found to be V-shaped and measured 2m wide and 1m deep. The enclosure ditch was also V-shaped but was much more substantial at 5m in width, with a bank measuring around 3m in width on the interior. Excavations were halted at 3m in depth, which appears to have been close to the lowest point of the ditch. Both the enclosure ditch and the Black Dyke ditch contained rubble with a loamy fill.

The enclosure ditch appears to have made use of the naturally sloping bedrock: the NW side of the ditch was a smooth face of rock sloping down at 60°. On the SE side, the face seems to have been covered with clay, interpreted as an attempt to smooth the surface to make it difficult to negotiate. Finds included a stone ard from the non-continuous ditch, and two smooth stone balls, 4cm in diameter, from the Black Dyke. The enclosure was interpreted by its excavators as a defensive work annexed to the nearby fort (Strong 1988).

Objectives of the 2020 works

The previous excavations were useful in clarifying the form of the ditch but did not provide a conclusive date. The objectives of our excavations were to explore the nature and condition of the earthworks with a view to gaining a better understanding of the form, function and date of the ditch.

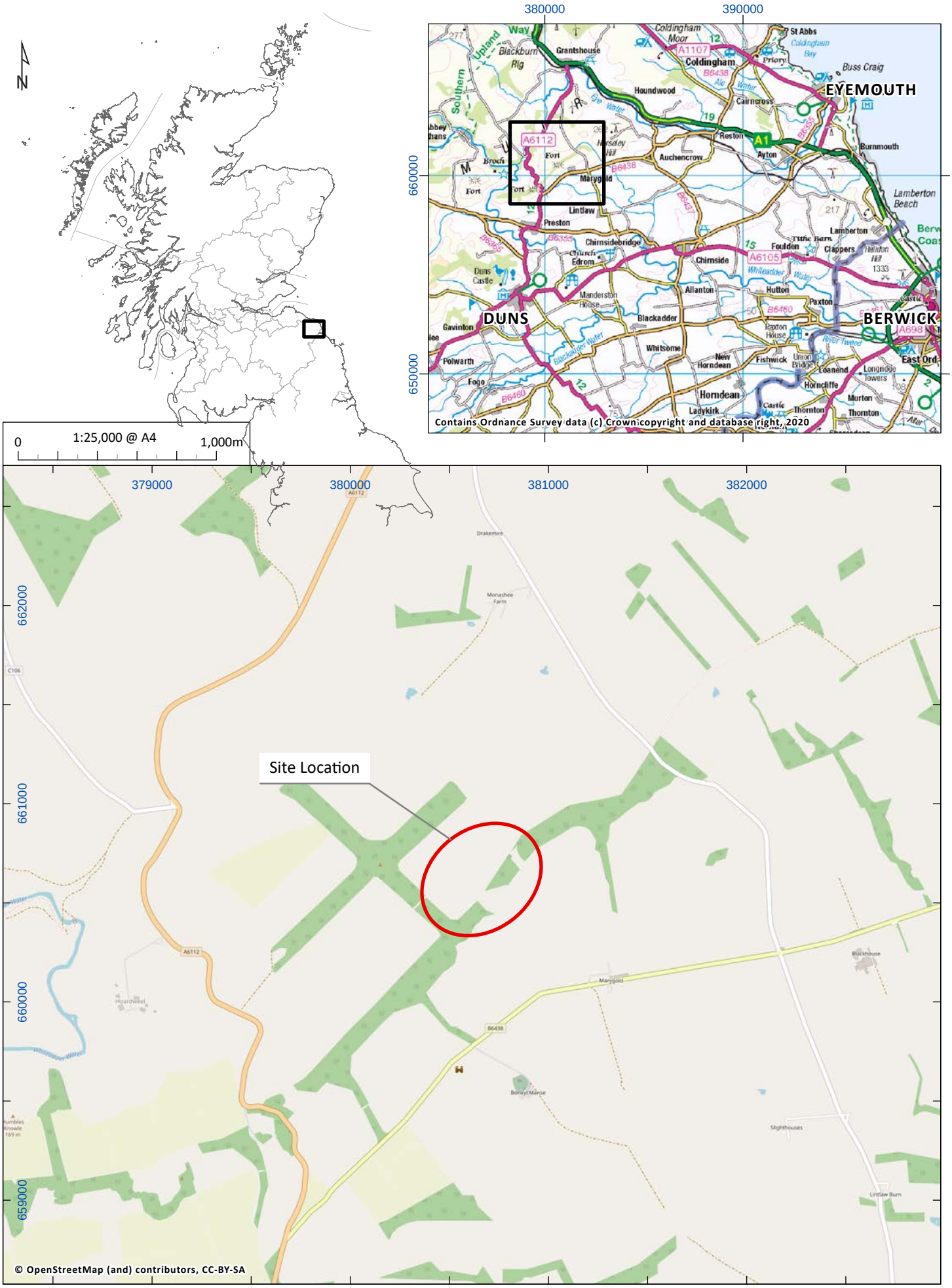

Figure 1: Site location plan

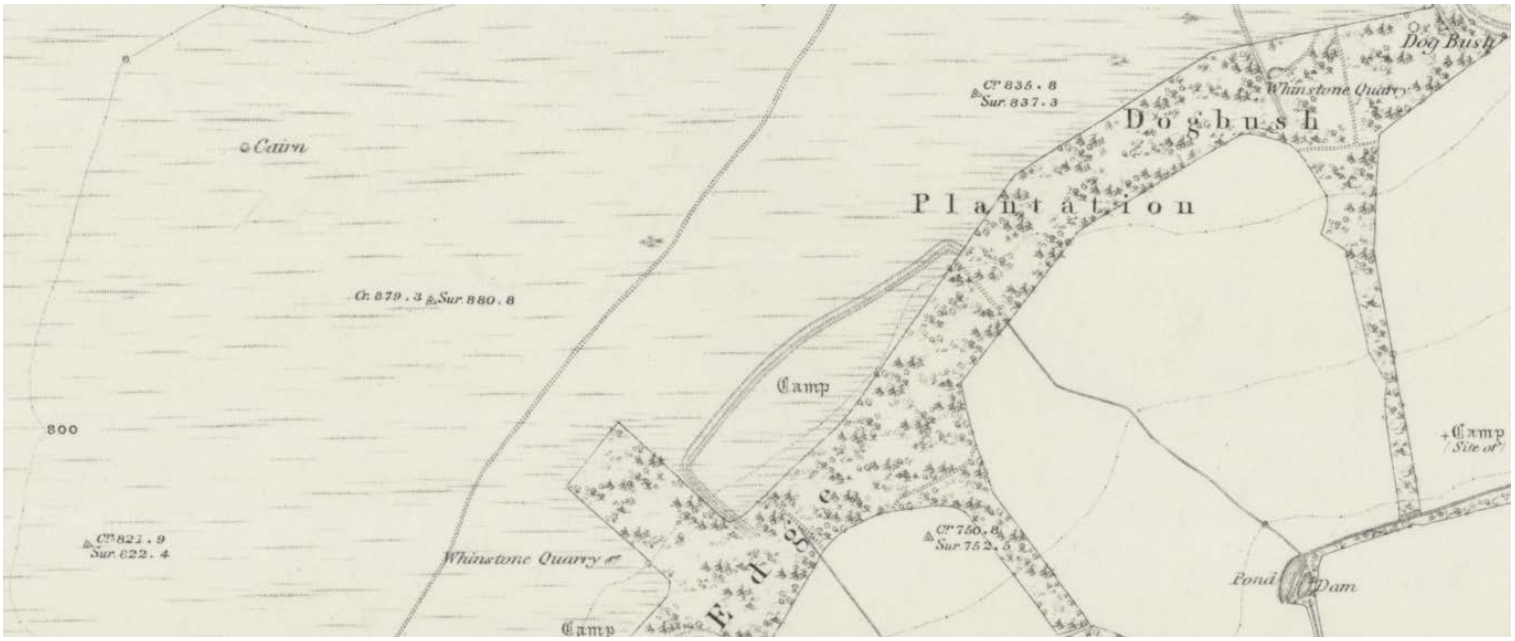

Figure 2: 1st edition OS map showing the location of the enclosure
(Reproduced with the permission of the National Library of Scotland)

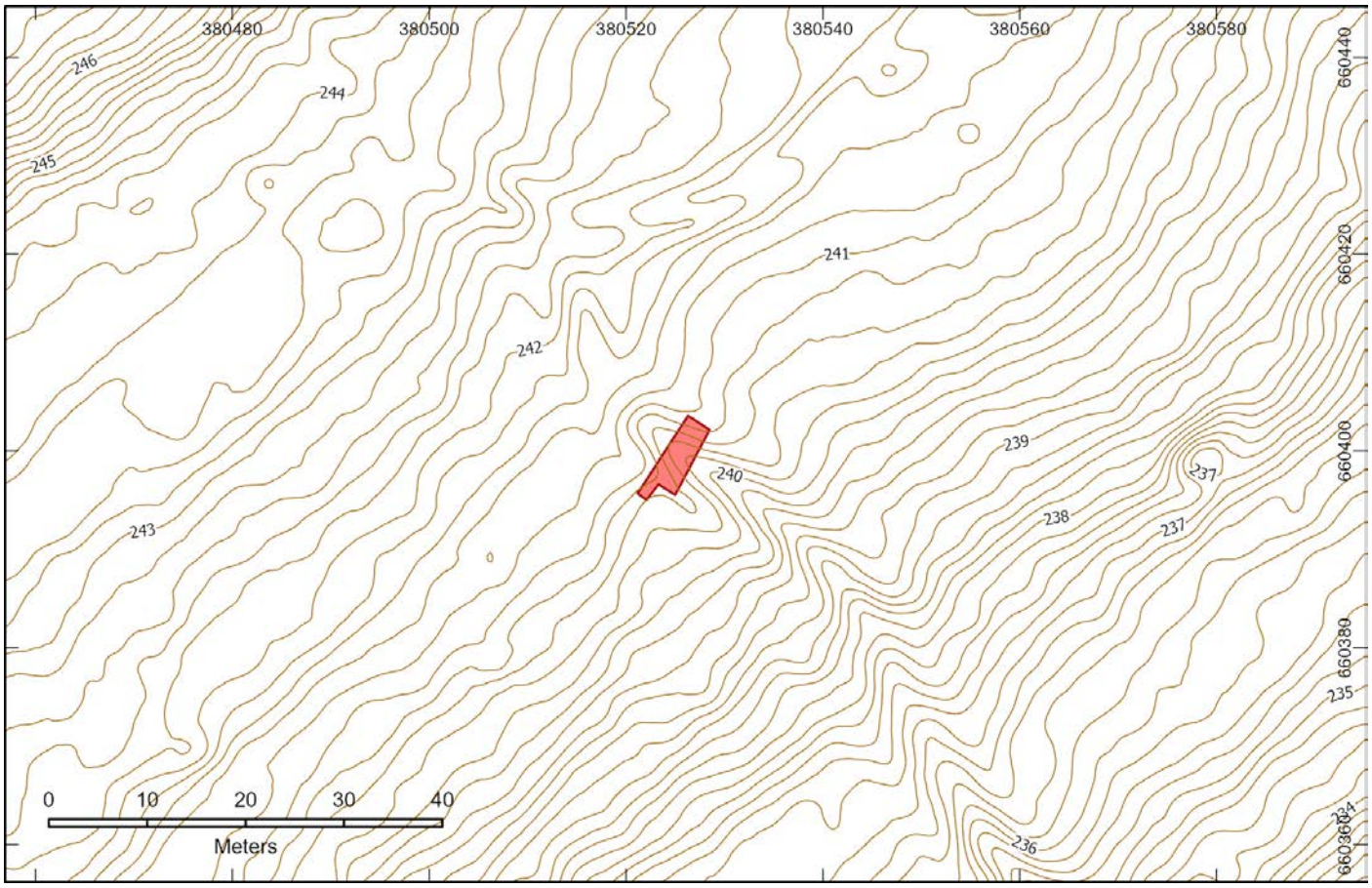

Figure 3: Contour map showing trench location

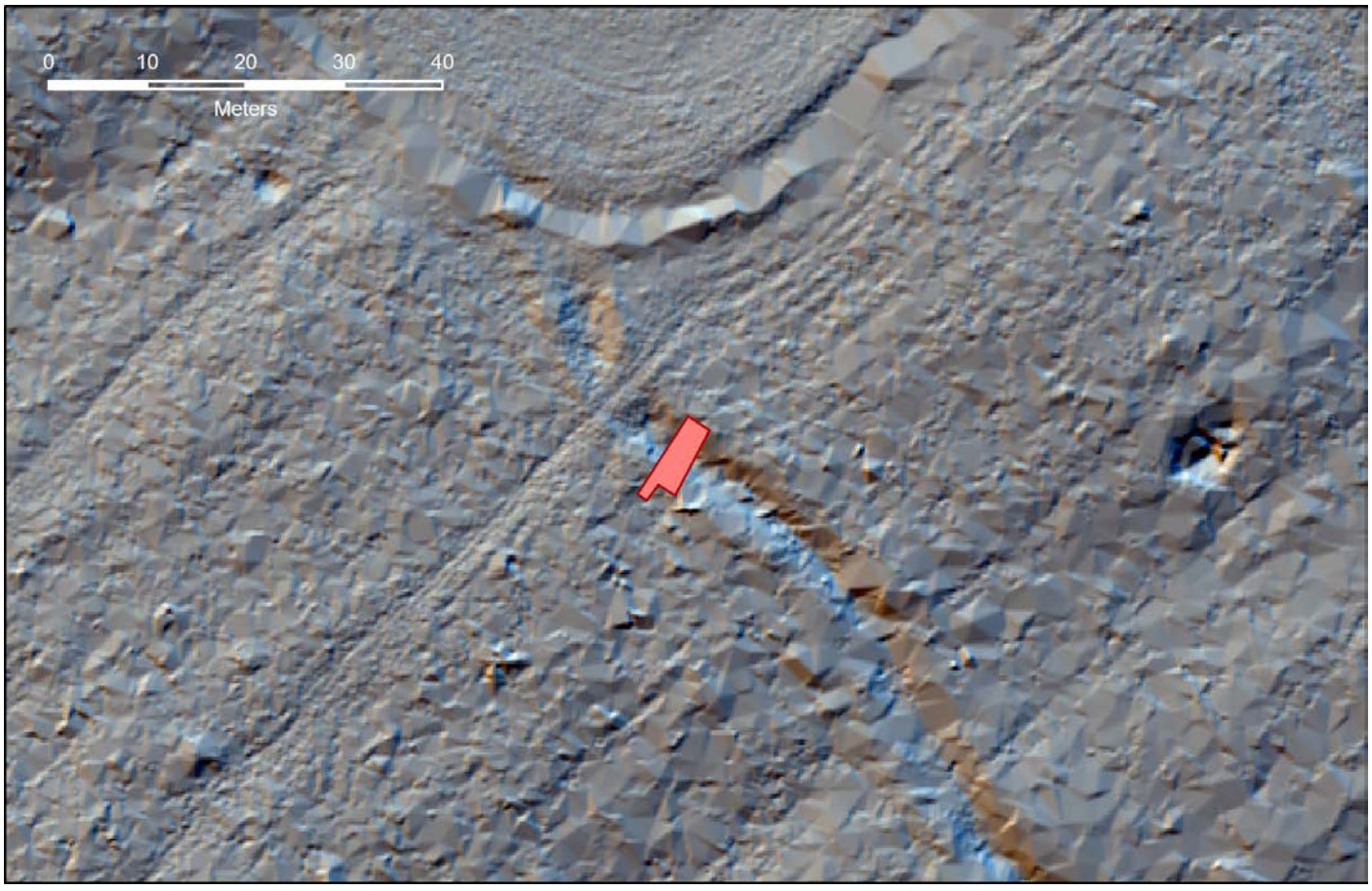

Figure 4: LiDAR map showing trench location

Results

A trench was placed across the ditch close to the northern edge of the plantation. The location was selected due to its being relatively free of trees/tree stumps. The trench measured 9m x 2.5m and was aligned SW-NE. An extension around 2m and 1.5m wide was later added to the south-west.

Immediately beneath the turf/vegetation, covering the entire trench, the topsoil (001) was a dark reddish brown clayey silt, moderately compact and up to 0.1m in depth. The topsoil was disturbed by roots throughout.

Beneath (001) was a mid pinkish brown clayey silt (002), moderately compacted with high stone content. The stones were sub-angular and up to 0.15m in diameter but mostly much smaller. This context extended across the entire trench to a depth of up to 0.1m but most evident on the banks. Like (001), this context was disturbed by roots throughout. This deposit was very shallow, not identifiable in section, but it was deepest (around 0.02m) in the centre of the trench, in the dip created by the ditch.

Beneath (002) was a patchy mid orangey brown clayey silt (003), overlying the bank material and slumping into the ditch. It was moderately compacted with frequent angular stones up to 0.1m diameter and also much smaller gravelly stone content. This deposit also contained larger, rounded stones up to 0.3m in diameter, interpreted as rubble from the collapse of the bank.

A line of stones [004] was identified running along the back (outer edge) of the outer bank. This survived as a fragmentary wall, surviving to one course of rounded and sub-angular stones up to 0.25m in diameter. This is interpreted as a facing wall on the outer edge of the outer bank.

Wall [004] was built onto deposit (014), a mid blackish-brown sandy silt with frequent angular stones up to 0.2m in diameter, which survived only beneath wall [004].

Plate 1: Wall [004] from the SE

Deposit (005) was formed of subangular stones up to 0.25m in diameter were identified throughout the southern trench extension, from the face of [004]. This was initially interpreted as rubble from the collapse of wall [004], suggesting that [004] previously stood taller than the remaining single course.

Deposit (006) was a mid orangey brown clayey silt with small angular stones up to 0.05m in diameter, the matrix of deposit (005) in the southern extension. This material was interpreted as collapsed bank material given that it contained rubble from the bank.

Immediately beneath (001) and (003), the ditch was filled with deposit (007), a mid orangey brown clayey silt with frequent small sub-angular stones up to 0.05m in diameter. The fill was up to 0.4m in depth and appeared very sterile, with little to negligible organic content.

In the southern extension of the trench, deposit (010) was a mid orangey brown silty sand up to 0.15m in depth with frequent small to medium stones (up to 0.1m in diameter), both sub-rounded and angular. This was interpreted as an active soil layer under the current topsoil, identified only externally to the enclosure.

Underlying wall [004] and its matrix (014) was deposit (011), a light cream-yellow clay spread across the outer bank beneath the mixed bank material (012) and also incorporating rubble (005) from wall [004] in a discrete area close to the western baulk. This was initially interpreted as a layer of clay deposited across the banks to add some stability to the mixed, loosely compacted bank material. However, it was found to overlie the natural and contained some of the rubble from the collapse of the wall, suggesting that it formed only after the collapse of the wall. This perhaps represents weathered natural which had formed a layer of clay.

The outer bank was formed of a mixed deposit (012), a dark orangey brown sandy silt with frequent angular and sub-angular stones up to 0.1m in diameter. This bank material survived to a depth of around 0.2m. Tree root activity had created frequent dark blackish brown patches and channels with high organic content.

Plate 2: Outer bank viewed from SSW

The inner bank was formed of a mixed deposit (013), a mid blackish brown brown sandy silt with frequent angular stones up to 0.15m in diameter. Excavation was halted on top of the inner bank, so the depth is of (013) is not known. Tree root activity had created frequent dark blackish brown patches and channels with high organic content.

The rock-cut ditch was identified as V-shaped. The natural bedrock was soft and fragmented into small blocks, making the surface very irregular. It was overlain by a layer of clay, suggesting that it had been exposed to the weather for a considerable period.

Plate 3: Inner bank viewed from the SE

Plate 4: SE facing section of trench from, showing ditch fill and bedrock cut

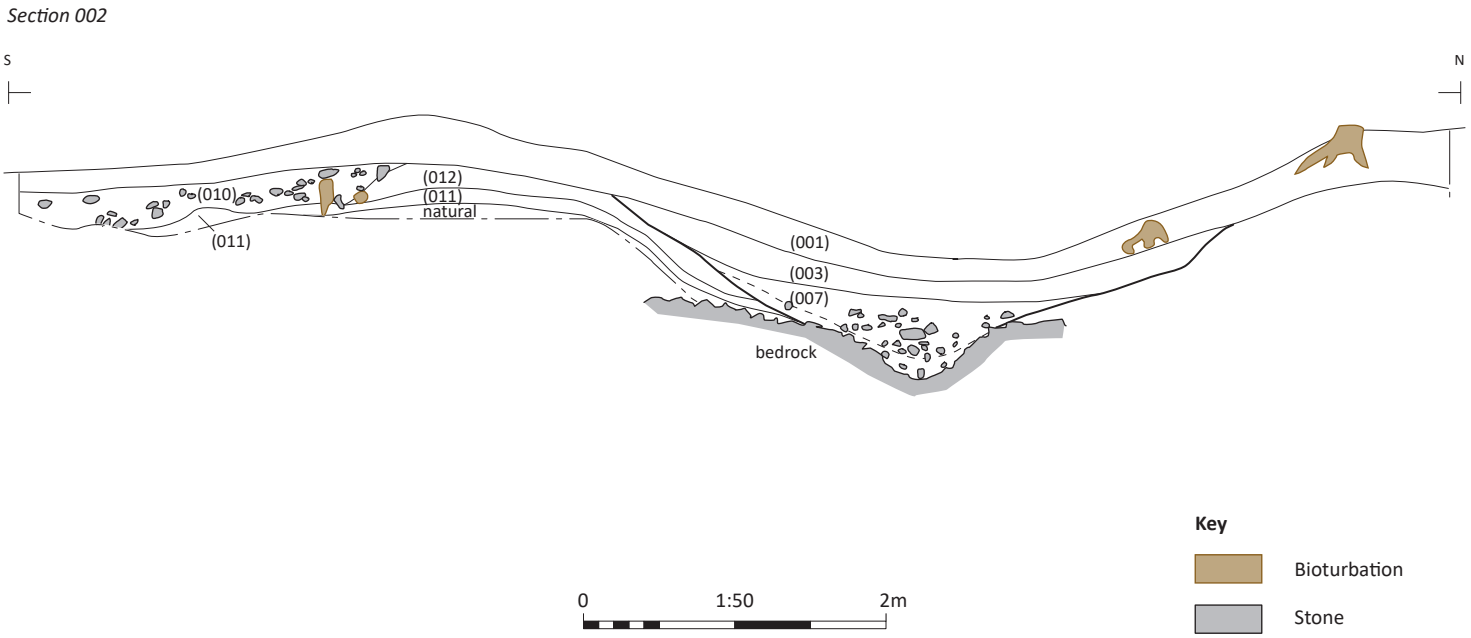

Figure 5: Ditch profile

Conclusion

The field programme undertaken at Marygoldhill has advanced our understanding of the form of the ditch. The ditch was cut into the bedrock, with the upcast material being incorporated into the banks, hence the patchy nature of the bank material.

The previous excavators recorded that “on the steeper south-east side the fractured ends of the strata were covered with a smooth yellow clay” and interpreted this as having been undertaken by the ditch’s creators, “perhaps to exclude the possibility of footholds” (Strong 1988, 120; 123). Clay was identified during this most recent phase of work, covering the bedrock everywhere that it was exposed. While Strong’s interpretation is a possibility, our interpretation is that the clay formed naturally during weathering of the exposed bedrock while the ditch was open. Similarly, a layer of boulder clay was identified overlying the natural, directly beneath the outer bank material, suggesting that the bank was built directly onto the natural till, which had been exposed during the digging of the ditch.

If the enclosure was rectangular in shape, using the outlined denoted by Scottish Borders Council’s polygons and extrapolating to create a fairly regular rectangular shape which contains the nearby fort, the earthworks may have enclosed an area almost 100,000m2 or 10ha. A linear anomaly on the LiDAR data may indicate the line of the southern side of the enclosure, whether through a continuation of the rock-cut ditch or through exploitation of the natural terraces created by the underlying geology, which is quite tabular in this area.

Unfortunately, our excavations have not enabled us to more accurately date the enclosure. No artefacts were discovered, and none of the soil samples collected during the excavations yielded organic material suitable for dating. However, our work did allow us to get a clearer idea of the form of the enclosure, revealing traces of a wall or footing running along the exterior of the bank, enhancing the picture of the numerous sites that are found along Bunkle Edge.

Biblography

Strong, Peter (1988) ‘Pit alignment and earthworks between Marygoldhill Plantation and Drakemire, Berwickshire’. PSAS 118. (pp. 111-29).