

Illus 2.1 Location map (copyright CFA Archaeology Ltd)

2. INTRODUCTION

2.1 Archaeological background

In August 2010, CFA Archaeology Ltd (CFA) was commissioned by Dawn Construction Ltd to undertake a programme of excavation works in advance of the construction of the new Musselburgh Primary Health Care Centre. The new health care centre (NGR: NT 3428 7224; Illus 2.1) was situated immediately to the north of the scheduled area associated with Inveresk Roman Fort, on the site of the former Brunton Wireworks.

The Scheduled Monument of Inveresk Roman fort lies at the top of a steep slope immediately to the south of the excavation site. Inveresk has a long history of research, with the first significant find of a Roman altar dating back to 1565, but it was not until the late 1940s that the location of the fort was proven following trenching carried out by Sir Ian Richmond (Richmond 1980). Two phases of fort occupation dating to the Antonine period (139–165 AD) have been established (Richmond 1980: 294), while Leslie (2002a) has suggested three phases. Evidence for an associated civilian settlement extending eastward from the fort has also been revealed through excavation (Thomas 1988: 139; Bishop 2004). There has been some speculation (Richmond 1980: 298) that there may have been an earlier Flavian fort within the vicinity, but following the discovery of a Flavian-period fort at Elginhaugh *c* 5km to the south-west on the outskirts of Dalkeith (identified from aerial photographs in 1979 and found to date from the Flavian-period when it was excavated in 1986–7 (Hanson 2007)) this now seems unlikely, as contemporary Roman forts were generally located *c* 25–32km (one day's march) apart. Some tentative evidence from pottery discovered within the civil settlement (Bishop 2002b) suggests that occupation may have continued beyond the mid-Antonine period. A more detailed history of archaeological intervention at Inveresk is summarised by Leslie (2002a).

Earlier finds from the Brunton Wireworks included Roman burials consisting of at least five possible graves, which were discovered in July 1985 by workmen excavating a trench for machinery (Gallagher & Clarke 1993). The graves lay to the north of the development area approximately within

the location of the previous (now demolished) Tesco supermarket. The close proximity of the development site to these known Roman remains meant there was recognised potential for associated remains to exist within it. An archaeological evaluation carried out by AOC Archaeology Ltd (Cook 2009) to the west of the development area only identified 19th-century remains associated with the wireworks, suggesting that any earlier remains within that particular area had been destroyed.

Given the close proximity of the development site to Inveresk Roman Fort, combined with the extensive evidence for Roman occupation within the wider area, this area was considered to be one of high archaeological potential and consequently East Lothian Council attached a condition to planning consent for the development requiring a programme of archaeological works to be undertaken in advance of the construction of the health care centre. An archaeological trial trenching evaluation was carried out by Headland Archaeology Ltd in November and December 2009 (Robertson 2010) and identified a number of Roman-period features including linear ditches, a cremation burial and a cobbled surface sealed by a layer of clay. As a result of these discoveries, East Lothian Council Archaeology Service (ELCAS) required a programme of further excavation and post-excavation analysis to be conducted. The excavations, which were undertaken by CFA between August and December 2010, uncovered extensive Iron Age and Roman-period remains including burials, a rampart base, a field system, and an extensive midden, and led to the recovery of numerous artefacts and ecofacts including pottery, metal and bone. These remains form the basis for this paper. Also uncovered was an extensive Mesolithic/Neolithic flint scatter which is published separately (Clarke & Kirby forthcoming).

2.2 Topography and soil deposits

The site, which lies to the south of Inveresk Road, occupied a vacant plot of *c* 10,325m² in area (Illus 2.1). Cartographic information indicates that prior to the expansion of Brunton Wireworks in the 20th century, this area consisted of undeveloped farmland. Following the demolition of the wireworks, the area

was covered by a combination of modern overburden and reinforced concrete relating to the former works buildings. The site was largely flat, but sloped steeply upwards towards the southern edge to form an embankment running the length of the site where it bordered the scheduled area associated with Inveresk Roman Fort. The summit of this steep embankment was formerly occupied by the wire testing range associated with the wireworks. Beyond the embankment, the topography of the ground again sloped steeply up towards the summit of the ridge where the Roman fort was located.

The soil deposits across the area predominantly consisted of 0.8–1.5m of grey-brown sandy silt overlying pale yellow sand. Along the southern boundary of the site where the steep embankment was situated, the soil deposits measured up to 2m in depth and overlay silty clay slopewash at the western end and pale yellow sand at the eastern end. Roman-period features had been cut into the slopewash deposits so soil stripping was halted at this level. Test-pitting was later undertaken within the slopewash deposits on the discovery of a quantity of prehistoric lithics (Clarke & Kirby forthcoming). The overlying soil deposits at the southern end of the site contained numerous Roman-period artefacts and have been interpreted as a midden-rich deposit. Throughout the site there were areas of disturbance where features associated with the former wireworks had been cut into the subsoil, with various elements such as concrete pillar bases still surviving in situ.

2.3 Methodology

In agreement with ELCAS, the programme of works was undertaken as a phased excavation, with areas being signed over for development work on completion. Prior to the excavation, machine test-pitting was undertaken to assess the nature and depths of the deposits. Modern overburden was removed from the site under constant archaeological supervision using a 360° mechanical excavator equipped with a smooth-bladed ditching bucket. The Roman midden-rich deposits (C003) along the southern edge of the site were divided into 11 10m-wide zones (Zone 1 to Zone 11) and reduced by mechanical excavator in spits of <0.1m in order to allow the maximum

number of artefacts to be recovered. The recovery of metal artefacts was aided by the use of a metal detector. The entire area was cleaned by hand and all features were hand-excavated. Site plans were compiled using industry-standard total station surveying equipment.

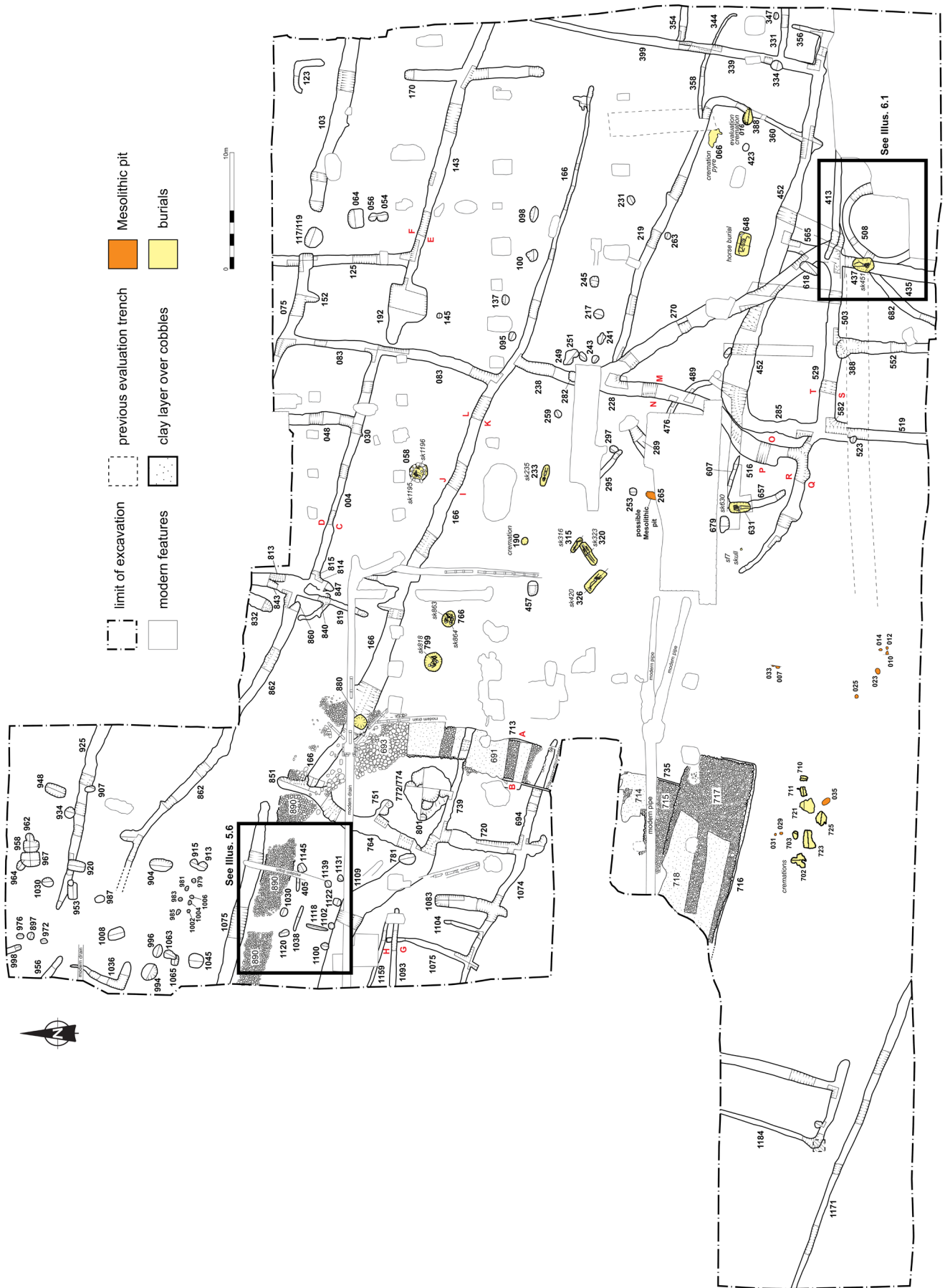
Radiocarbon dates were assayed by the Scottish Universities Environmental Research Centre in East Kilbride. Full details of the procedures, including sample pretreatment and quality control, is provided in Dunbar et al 2016. Calibration of radiocarbon dates was conducted using OxCal v4.1, using the IntCal09 calibration curve: $\delta^{13}\text{C}$ values were measured by accelerator mass spectrometry.

2.4 Summary of site phasing

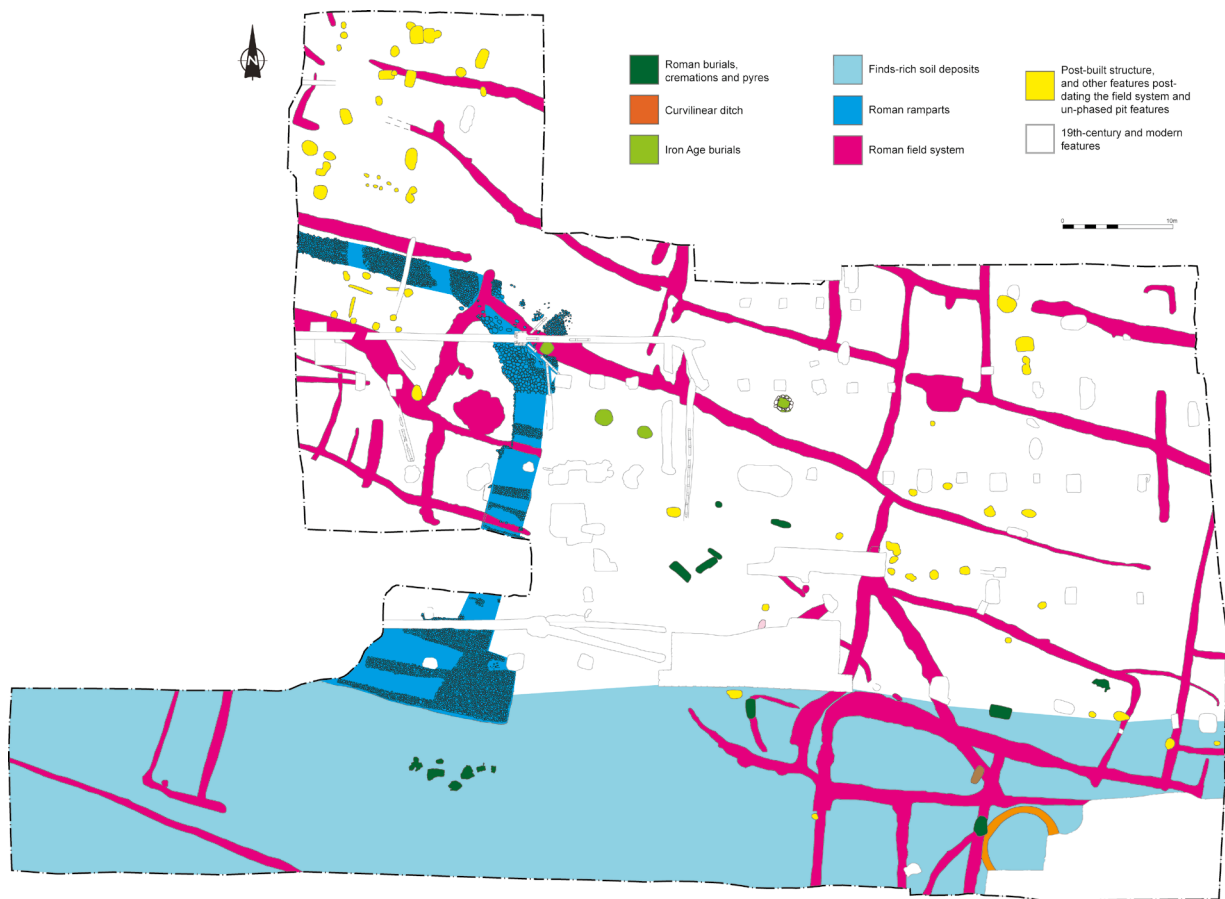
A number of different phases of activity were identified during this programme of works (Illus 2.2–2.3). However, these do not necessarily follow a linear chronological sequence, with a number of different phases/activities on the site potentially overlapping or being broadly contemporary.

The earliest identified phase consisted of a Mesolithic/Neolithic flint scatter (Clarke & Kirby forthcoming). This was followed by Iron Age burials dating from 50 cal BC–cal AD 90 (SUERC-38434) through to cal AD 0–210 (SUERC-38423) at 95% probability. A probable ring ditch towards the southern boundary of the site remains undated, but was cut by features relating to periods of Roman activity and is likely to be prehistoric.

Roman-period activity on the site consisted primarily of a series of burials, a possible rampart base and an extensive field system. Radiocarbon sampling of the Roman burials produced dates of cal AD 20–220 (SUERC-38425) through to cal AD 80–240 (SUERC-38426) at 95% probability. No direct stratigraphical relationship was established between the Roman burials and the rampart base, but both were cut by the field system, indicating that the latter post-dated these phases of use. A direct stratigraphical relationship was established at one point in the site where an Iron Age burial was overlain by the rampart base, which was in turn cut by a field system ditch. The field system itself may represent more than a single phase of activity, but apparent evidence of one ditch cutting another



Illus 2.2 Site plan (copyright CFA Archaeology Ltd)



Illus 2.3 Site plan showing phases of activity (copyright CFA Archaeology Ltd)

might represent the recutting or cleaning of existing ditches as they would have been filled up rapidly by the loose sandy soil present throughout the site. Along the southern edge of the site the field system had been sealed by a large quantity of midden-rich soil containing numerous Roman-period artefacts, and towards the north-western end of the site a backfilled field system ditch had been cut by post holes associated with a post-built structure located close to the edge of the rampart base. A number of isolated undated pits were also identified, but

it is unclear how these relate to the main phases of activity identified on the site.

Sections 3 to 5 give details of the archaeological findings from the main phases of activity identified on the site. As far as can be determined from the available evidence, they are arranged in chronological order (earliest first), but as already mentioned, a number of different phases may potentially overlap or be broadly contemporary. Additionally, there are a number of features that cannot be directly linked with any of the main phases of activity (Section 6).