2. PROJECT BACKGROUND

Between August and September 2018, Headland Archaeology conducted archaeological excavations at Thainstone Business Park, Inverurie, Aberdeenshire, following an evaluation undertaken by Cameron Archaeology (2018). Several Bronze Age and Iron Age features were identified, including cremation burials, roundhouses, a souterrain, a ring ditch and a pit cluster. The work was commissioned by Axiom Project Services in response to a condition on a planning application (APP/2015/3793 and APP/2018/0140) submitted to Aberdeenshire Council in advance of commercial development of the site. The objectives of the excavation were to record archaeological features and establish the date and duration of settlement activity.

2.1 Site location

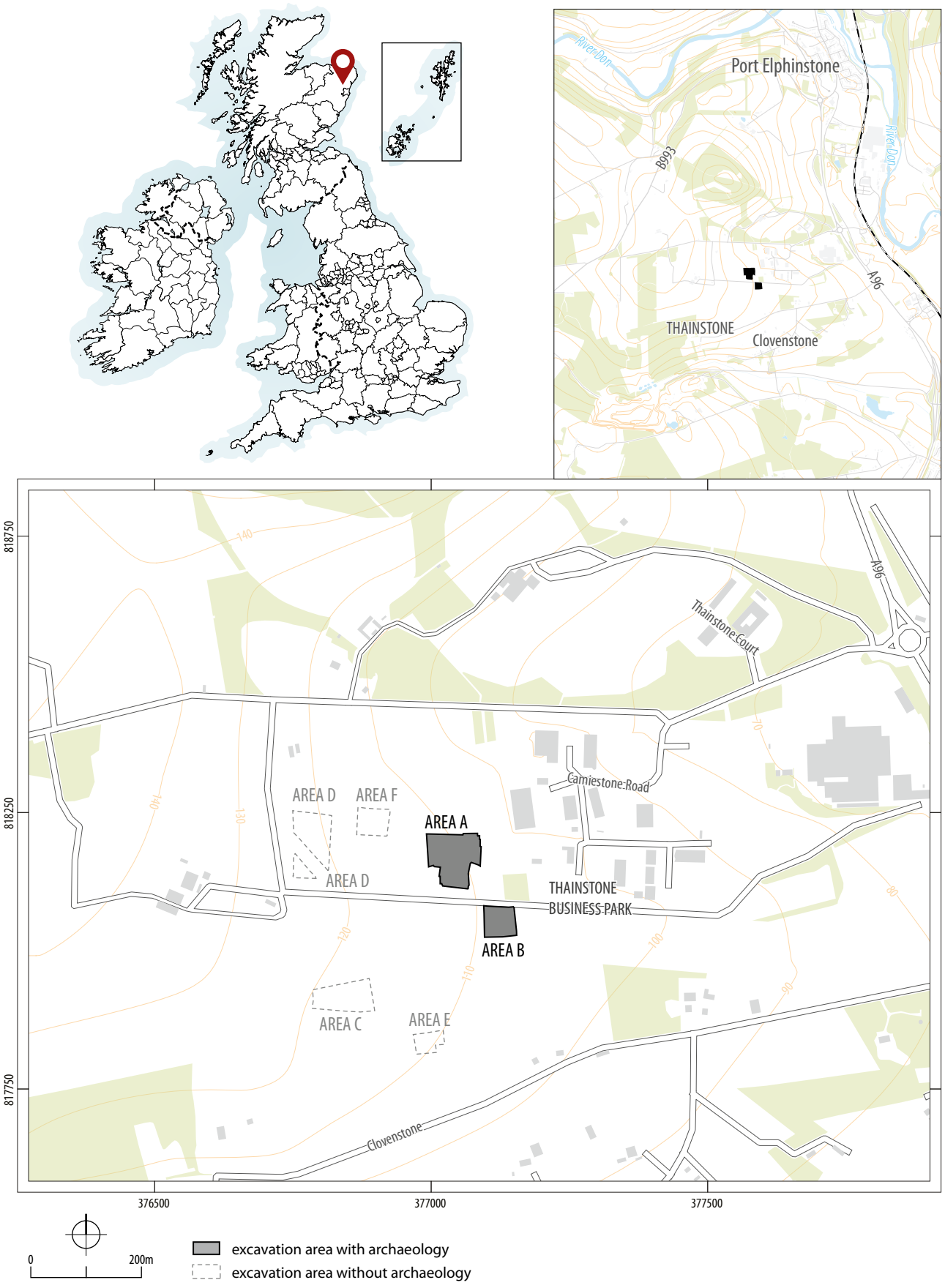
The development site was located in fields laid to pasture to the west of Thainstone Agricultural Centre, approximately 3km to the south of Inverurie, Aberdeenshire (NGR: NJ 7707 1809; Illus 1). The excavation area was situated on a plateau between 104m and 111m AOD, with a gradual south-facing slope descending towards the River Don.

The geology of the area comprised Aberdeen Formation – psammite and semipelite – metamorphic bedrock formed between 1,000 and 541 million years ago. This was originally sedimentary rock formed in shallow seas and later altered by low-grade metamorphism. The superficial geology was made up of the Banchory Till Formation – diamicton. These were formed between 116 and 11.8 thousand years ago during the Quaternary period (NERC 2020).

2.2 Archaeological and historical background

The site was within a region that is rich in significant, prehistoric archaeology including standing stones, settlements and forts. Within the footprint of the development, two previously known features were recorded: 'Camie's Stone' and a large, circular cairn adjacent to it (Canmore ID 18610 and 18570, respectively). The standing stone was traditionally thought to mark the site where a Danish general named Camus (or Cambus) was slain in battle (Watt 1865: 132; OS Survey 1867: 31–2), however, there is doubt whether the battle or the general actually existed (Coles 1902: 504). Differential weathering suggested the rounded end of the stone was originally set into the ground. During a visit by RCAHMS in 1998, the tenant stated that the stone had been upended and re-erected on at least one previous occasion. The stone and the place name were first mapped in the early 19th century when 'Comiestone' was depicted on Thomson's map of 1832. The cairn was still visible in 1902 (Coles 1902: 504) but had been cleared by the time of an Ordnance Survey visit in 1964. A stone cist known as Camie's Grave (Canmore ID 18599) lies approximately 400m to the north-east of 'Camie's Stone'. To the south of the standing stone are several large, natural boulders known as 'The Cloven Stone' (Canmore ID 18640) that have been incorporated into a stone boundary wall. Excavations in 2002, immediately to the east at Thainstone Business Park, uncovered the remains of an Iron Age roundhouse (in the form of a post-ring structure), two hearths or ovens and a four-post structure (Murray & Murray 2006). Finds included flint flakes and a scraper, a crucible fragment and a glass bead. The features were radiocarbon-dated to the 1st and 2nd centuries AD.

Additionally, the site was close to three Scheduled Monuments. 'Bruce's Camp' (Canmore ID 18586; SM 12523), 0.5km to the north, is a later prehistoric hillfort situated on the summit of Shaw Hill. A hoard of Iron Age metalwork was discovered under a large stone on the hill in 1867 and an archaeological excavation in 2006 identified walls, post holes and pits within the interior (Cook et al 2006: 19). Approximately 1km to the south-east are the remains of a Neolithic or Bronze Age stone circle at Fullerton (Canmore ID 18569; SM 7920). Originally seven stones were thought to exist but only one is still upstanding. A cist inhumation and evidence of cremation urns were recorded during investigation of the site at the turn of the 19th and 20th centuries (Coles 1901). Later analysis of the pottery recovered from here confirmed Iron Age activity had also taken place (Kilbride-Jones 1935). Further prehistoric cremations were identified at Broomend of Crichie (Canmore ID 18621; SM 18), approximately 1.5km north of Thainstone. This site was associated with a complex Neolithic and Bronze Age landscape that also included a henge monument, stone circle, timber circle, Beaker burials



Illus 1 Site location (© Headland Archaeology (UK) Ltd; OS OpenData © Crown copyright and database right (2020))

and a stone hammer (Dalrymple 1884; Coles 1901; Ritchie 1920). Excavations in the 2000s identified the locations of stone sockets, post holes and pits (Bradley et al 2001; Bradley & Clarke 2007). More recent excavations have continued to add to the prehistoric archaeological record of the area, with excavations at Boynds Farm (Dalland & Cox 2014) and Portstown (Ginnever 2015) revealing Bronze Age cremation pits, late Bronze Age to Iron Age roundhouses and a possible souterrain. Evidence of more recent history is also evident in the surrounding landscape, with medieval rig and furrow evident within the grounds of Thainstone House (Canmore ID 76091), originally built in the 18th century and modified in the following century. Nineteenth-century crofts and farms are also present in the area.

Prior to the excavation at Thainstone, archaeological trial trenching was undertaken by Cameron Archaeology in 2018. Eight concentrations of archaeological features were identified, including two circular structures, hearths, charcoal-filled pits and pits containing slag (Cameron Archaeology 2018). Later in 2018, six areas (Areas A–F) were targeted for monitored topsoil stripping, based on the results of the evaluation. Of these six areas, only Areas A and B contained archaeological features and were subsequently excavated by Headland Archaeology (Headland Archaeology 2019a). The results of this excavation in tandem with subsequent finds analysis and radiocarbon dating evidence are discussed here.

After the excavation, an archaeological watching brief was carried out within the development area but outside the targeted excavation areas, in connection to a new access road. This was also undertaken by Headland Archaeology and revealed a handful of isolated features (Headland Archaeology 2019b).

2.3 Archaeological summary

Following the results of the evaluation, six areas were targeted for monitored topsoil stripping (Areas A–F; Illus 2), which was undertaken by Cameron Archaeology in July 2018. Of these six areas, only Areas A and B were determined as requiring further investigation due to the concentration of archaeological features. Areas C–F did not contain any additional features beyond what was recorded in the evaluation and as a result were not further investigated.

An average of 0.3m of topsoil was removed, revealing the underlying geological subsoil of pinkish-brown sand and gravel with frequent rounded stones and occasional outcrops of sandstone bedrock, especially in the eastern half of Area A. A series of north to south-aligned furrows were present in Area A, measuring up to 1.2m wide and 0.2m deep. In Area B, the furrows were of the same dimensions as in Area A but were aligned east to west. Both furrow alignments were in line with the current field boundaries and were therefore likely post-medieval. The agricultural practices within these areas would have truncated the archaeological features to some extent.

Several prehistoric features were identified, including four urned cremations, a possible tree root hollow containing further cremated bone, two roundhouses, a souterrain and several isolated features. The finds assemblage largely comprised pottery, associated with both the cremations and the structures. A small number of stone and other artefacts were also recovered. Analysis was undertaken on the cremated human bone, charcoal and environmental material.

2.4 Radiocarbon dating and period date ranges

Radiocarbon dating was carried out on six samples from the cremation pits and structures. The materials selected for radiocarbon dating were chosen based on their condition, size and security within features, and supported with finds dates. However, some of the radiocarbon dates associated with the settlement features were obtained from material recovered from naturally infilled deposits and are therefore less secure than dates retrieved from burnt bone in cremation pits.

The samples were submitted to the Scottish Universities Environmental Research Centre (SUERC) AMS Facility. The dates were calibrated using OxCal v4.4 (Bronk Ramsey 2017) and the atmospheric calibration curve for the northern hemisphere (Reimer et al 2020). Dates cited in the text are based on 95.4% probability and rounded to the nearest five years, following Mook (1986). The calibrated date ranges spanned two millennia from the Middle Bronze Age to the 6th century AD

Illus 2 Excavation Areas A and B (© Headland Archaeology (UK) Ltd; OS OpenData © Crown copyright and database right (2020))

(Table 1). Due to limited stratigraphic relationships, the AMS dates and finds data provide the majority of the evidence for phasing the site.

Period date ranges were based on the summary chronology and associated artefact types for Scotland, as noted in the Scottish Archaeological Research Framework (Downes 2012) and are as follows:

- Early Bronze Age (2200–1550 BC)
- Middle Bronze Age (1550–1150 BC)
- Late Bronze Age (1150–800 BC)
- Early Iron Age (800–400 BC)
- Middle Iron Age (400 BC–AD 300)
- Late Iron Age (AD 300–400)
- Early Historic/Early Medieval (after AD 400)

2.5 Report structure

The archaeological features are described by area. This is followed by descriptions of the artefactual and environmental remains. The findings are pulled together and discussed by period at the end.

Some interpretations have changed since preliminary reporting (Headland Archaeology 2019a), including interpretation and numbering of structures. Some undated features and some artefactual material has been omitted from this report as they do not further contribute to the understanding of the site. These included an unstratified sherd of Late Neolithic to Early Bronze Age pottery with a herringbone pattern. Full details can be found in the unpublished archive report (Headland Archaeology 2019a).

Table 1 Radiocarbon dates calibrated using OxCal v4.3.2

Feature	Context	Lab sample	Material	Uncalibrated date BP	$\delta^{13}C$ ‰	Calibrated date at 68.2% probability	Calibrated date at 95.4% probability	Period
Structure 2 (Post Hole 120)	121 (single fill)	SUERC-93918 (GU55063)	Charcoal *Ilex aquifolium* (holly)	3178 ± 26	–28.0	1500–1420 cal BC	1505–1410 cal BC	Middle Bronze Age
Structure 1 (Ditch 187)	188 (upper fill)	SUERC-93919 (GU55064)	Charcoal *Alnus glutinosa* (alder)	3073 ± 26	–26.9	1400–1290 cal BC	1415–1260 cal BC	Middle Bronze Age
Cremation Pit 094	095 (fill within Vessel 2)	SUERC-93920 (GU55065)	Burnt human bone (femoral shaft)	3044 ± 26	–26.3	1385–1260 cal BC	1400–1220 cal BC	Middle Bronze Age
Tree Bole 017	015 (upper fill)	SUERC-93921 (GU55066)	Burnt human bone (indet. long bone)	2828 ± 26	–23.9	1015–930 cal BC	1055–900 cal BC	Late Bronze Age
Souterrain	141 (basal fill)	SUERC-93914 (GU55062)	Charcoal *Corylus avellana* (hazel)	1918 ± 26	–26.5	cal AD 65–205	cal AD 25–210	Middle Iron Age
Structure 2 (Ditch 151)	152 (single fill)	SUERC-93941 (GU55184)	Charcoal *Alnus glutinosa* (alder)	1609 ± 26	–26.7	cal AD 415–535	cal AD 415–540	Early Historic