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The Lands of Ancient Lothian

Interpreting the Archaeology of the A1

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Chapter 1

Routes to East Lothian's past

OLIVIA LELONG and GAVIN MacGREGOR

Introduction

To drive along the A1 through East Lothian is to experience a story: the story held in its present landscape, of how people have lived there over the last 10,000 years. Ordinarily, most elements of this story are buried beneath the surface of the land, but between 2001 and 2004 the upgrading of the A1 to dual carriage expressway between Haddington and Dunbar provided a chance to look beneath the surface and discover some of them. Linking these elements of the story together lets us journey not only through East Lothian's present landscape, but also through its past ones.

The slice through past and present landscapes that the road upgrade revealed lets us explore what people did at particular places, and in the spaces that connected them. We have chosen to present the results of the A1 excavations in a narrative way that integrates evidence from both site and landscape, diverging from the traditional, data-led approach to archaeological writing. We hope that this approach has produced a more highly textured, interpretative account of East Lothian's archaeology.

Background to the project

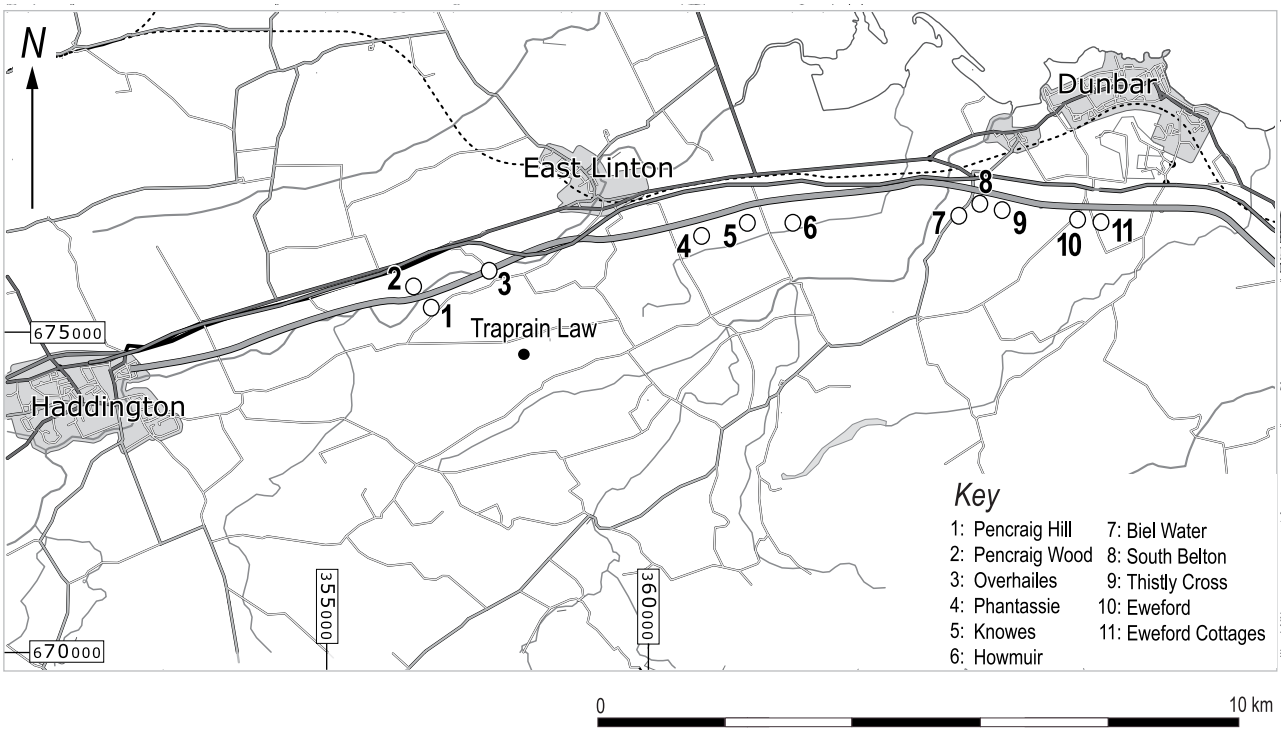
The A1 has historically been an important route way between Edinburgh and the south, and the section between Haddington and Dunbar is the most recent to have been upgraded (Baker 2003). The upgraded section runs for approximately 20km (Figure 1.1). From Haddington, in the west, it runs along level, low-lying ground until it climbs the south-western flank of Pencraig Hill, to the north of Traprain Law. It descends a long slope across Overhailes Farm to cross the River Tyne, skirting the village of East Linton on the south, and climbs the opposite slope to the river valley's shoulder. On Phantassie Farm it drops again to low ground to hug the railway line across Howmuir and Knowes farms, running onto slightly higher ground around Eweford after crossing the Biel Water. Travelling this route in a vehicle takes perhaps 15 minutes.

Along its length, the A1 links disparate places and landscapes. It extends through East Lothian for another 22km further to the west, briefly brushing Midlothian and leading into Edinburgh. To the south-east, it meets the coast at Torness power station and plunges south into the Borders and beyond.

The upgrading of the road was preceded and accompanied by a programme of archaeological work, undertaken by Glasgow University Archaeological Research Division (GUARD), and specified and monitored by Historic Scotland on behalf of the Scottish Executive Trunk Roads Design and Construction Division.

This archaeological work progressed through several phases. The road was designed to avoid all known archaeological sites, except for two Scheduled Ancient Monuments at Eweford which could not be avoided. Historic Scotland specified that the remainder of the road construction corridor should be evaluated through trial trenching of a sample of the area. After desk-based assessment, the fieldwork commenced with the evaluation of a 5 per cent sample of the corridor between Haddington and Thistly Cross over the winter of 2001–2 (Figure

1.2 Evaluation of the road corridor underway, winter 2002.



1.3 Map showing the locations of the excavated sites along the A1.

1.2). GUARD also evaluated parts of the two Scheduled Ancient Monuments at Eweford, stripping 100 per cent of the topsoil over the scheduled areas and up to 30 per cent over the immediate vicinity. These evaluations identified significant archaeological remains at several places, including at Overhailes, Phantassie, Knowes, Howmuir, Pencraig Wood and Eweford (East and West), leading to excavations of these sites during 2001 and 2002 (Figure 1.3). The grubbing up of part of the C-category road that ran beside a Scheduled Ancient Monument at Eweford Cottages led to another excavation in 2002. Subsequently, topsoil-strip monitoring during the construction of the road revealed further significant archaeological remains at Pencraig Hill, Biel Water, South Belton and Thistly Cross. All of these sites were investigated and recorded to some extent, within the constraints of the construction programme.

During all of the excavations, deposits were routinely and consistently bulk sampled for flotation; column samples and kubiena tins were taken where appropriate for micromorphological analysis; the locations of artefacts were recorded in three dimensions, and standard methods of drawn, written and photographic field recording were employed throughout. All of the excavations experienced some or much of the extreme weather conditions typical of Scottish fieldwork: frozen soils and strong winds during winter digging at Eweford East and West; prolonged spells of heavy rain during the late summer and autumn excavations at Pencraig Hill and Eweford Cottages; strong, drying winds and bleached sediments during the early summer work at Phantassie, Overhailes, Pencraig Wood, Knowes and Howmuir.

The results of the excavations have been the subject of intensive post-excavation analysis, which was also funded by the Scottish Executive Trunk Roads Design and Construction Division. Historic Scotland have monitored the post-excavation programme and provided additional support in the form of funding for radiocarbon dates. The site archives have been deposited with the National Monuments Record of Scotland, RCAHMS, while the finds have been allocated to the National Museums of Scotland.

The physical and environmental context

The core area of study addressed in this volume comprises East Lothian, but we also make frequent reference to the archaeology of southern and central Scotland, and particularly that of Mid and West Lothian. In this section, we briefly review the physical and environmental context of the core study area and its wider setting. The character of the local soils, topography and vegetation influenced

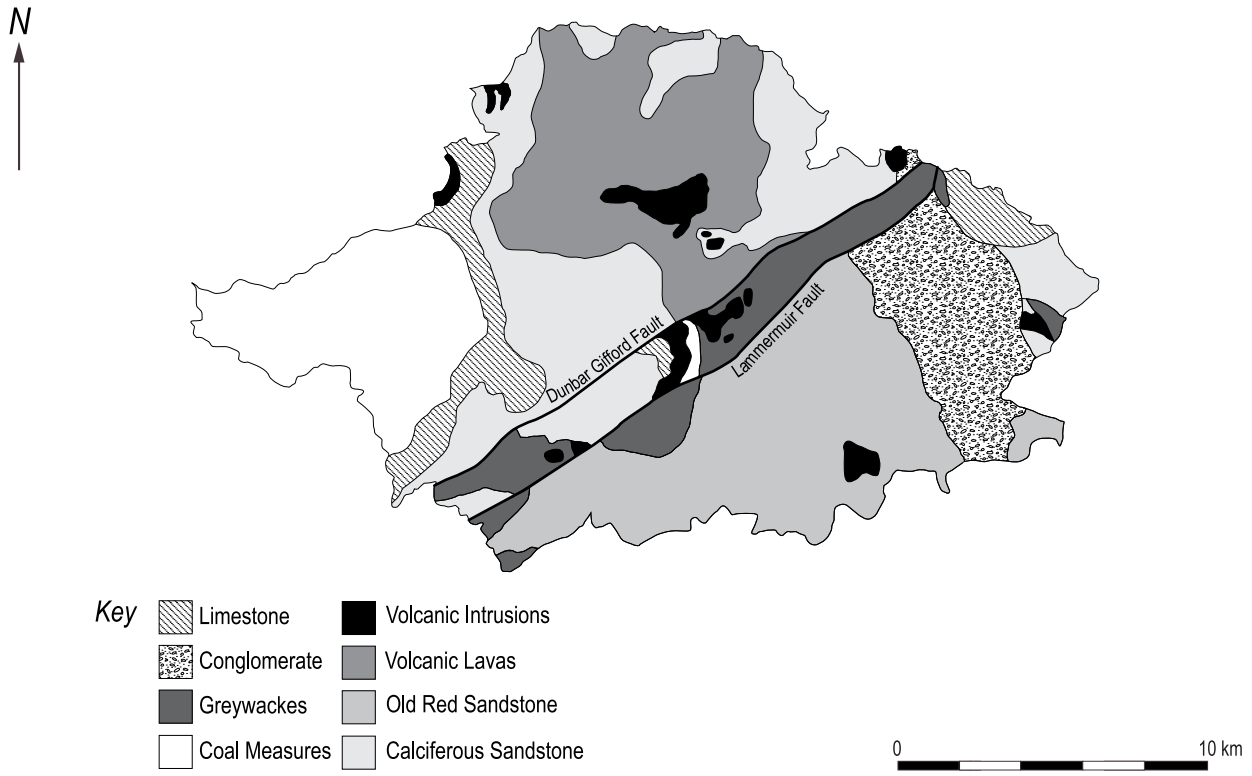
how and where people built dwellings or monuments in the prehistoric past, and evidence for this emerged from the programme of work.

While the geology of the core study region is relatively well-understood, our comprehension of the ancient environment is limited because, to date, no analysis has been carried out of peat or mire deposits in East Lothian. We must therefore infer changes in vegetation and climate from a wider body of evidence, based on analysis elsewhere in southern Scotland and northern England (for example, Tipping 1997a; Dumayne-Peaty 1999). Throughout, it should be remembered that the changing nature of the ancient environment resulted from complex inter-relationships between natural and human factors (Edwards 2004, 69). For example, long term regional changes in climate could have had varying local effects on vegetation, due to different degrees of forest clearance or intensity of agriculture (Tipping 2004, 46–8).

The region is sandwiched between the Firth of Forth to the north and the Southern Uplands to the south. Topographically, East Lothian is like an elongated half-bowl, open to the north where it gives onto the Firth of Forth. Much of it comprises a coastal plain, fringed in places by dune systems along the Forth estuary; these have been much denuded and were probably far more prominent and extensive in the past. The coastal plain undulates, lying flattest along the Firth and stepping upward toward the south, with areas of higher ground to the north of Haddington, at Chesters and around East Linton. The Lammermuir Hills, the Garleton Hills and the Moorfoot Hills define the region to the south, with the Pentland Hills bordering it to the west. Several very distinctive hills punctuate the East Lothian skyline; these include Traprain Law, North Berwick Law, Bass Rock and Arthur's Seat, and the archaeological evidence suggests that these were important reference points to people in prehistory.

Several rivers cross East Lothian, and their valleys create different topographic zones between coast and hill. The Tyne Water flows past Pathhead, becoming the River Tyne at Pentcaitland, and flowing through Haddington and East Linton to reach the sea at Tyne Mouth. Further to the west, the River Esk creates other topographic zones. The North River Esk descends from the higher ground of the Pentland Hills, while the South River Esk leads down from the uplands of the Moorfoot Hills.

In geological terms, the region lies in the Midland Valley of Scotland (Figure 1.4). Within this, the Lammermuir



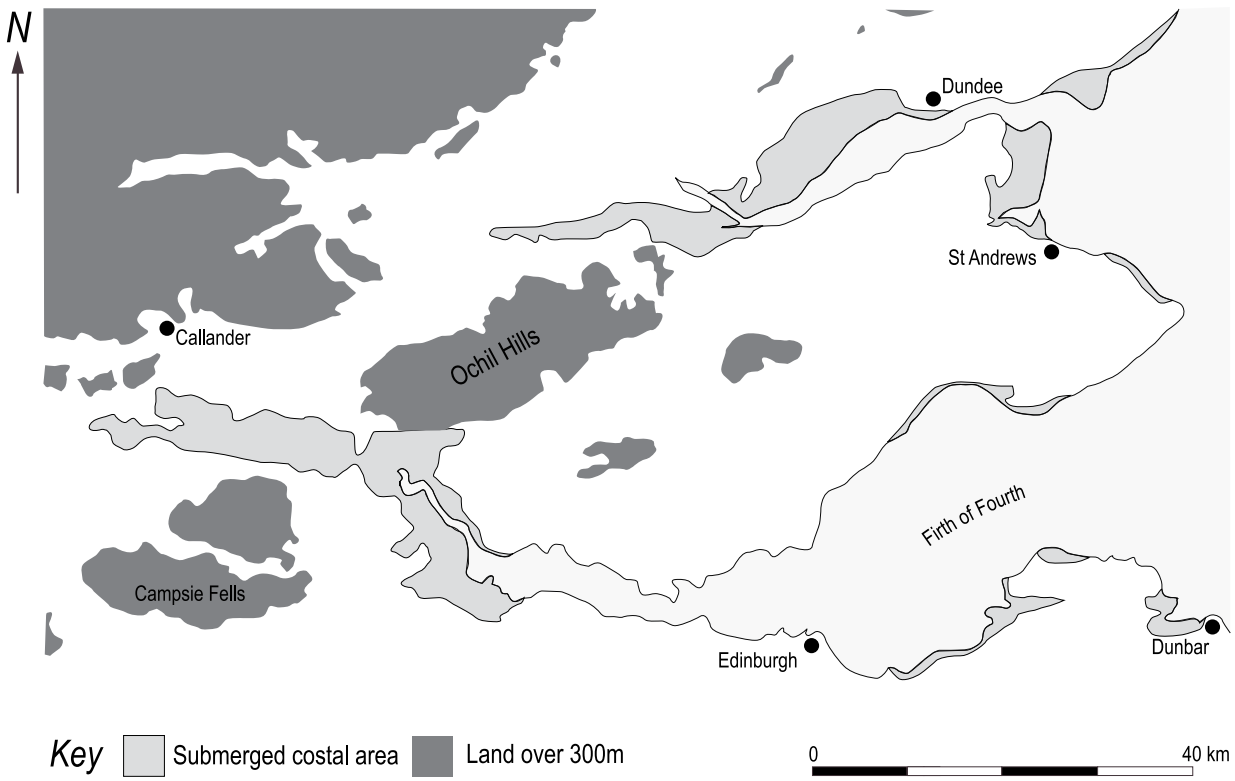
1.4 Map of the solid geology of East Lothian (after Whyte and Whyte 1988, 8).

Hills consist mainly of sedimentary forms of rock, including Silurian and Ordovician greywacke and shale, with a band of Devonian conglomerate running to the south from Spott to Longformaces (Ordnance Survey 1978 a and c). These are bordered to the north by the Dunbar-Gifford and Lammermuir faults, which comprise Devono-carbiniferous Upper Old Red Sandstone. Further north still, the geology is characterised by a mix of sedimentary carboniferous limestone series and millstone grit series and igneous rocks, predominantly trachyte and basalt. The drift geology consists mainly of glacial meltwater deposits and boulder clay (Ordnance Survey 1978b and 1978d), and post-glacial alluvial deposits extend inland from the coast, especially at the mouth of and along the River Tyne.

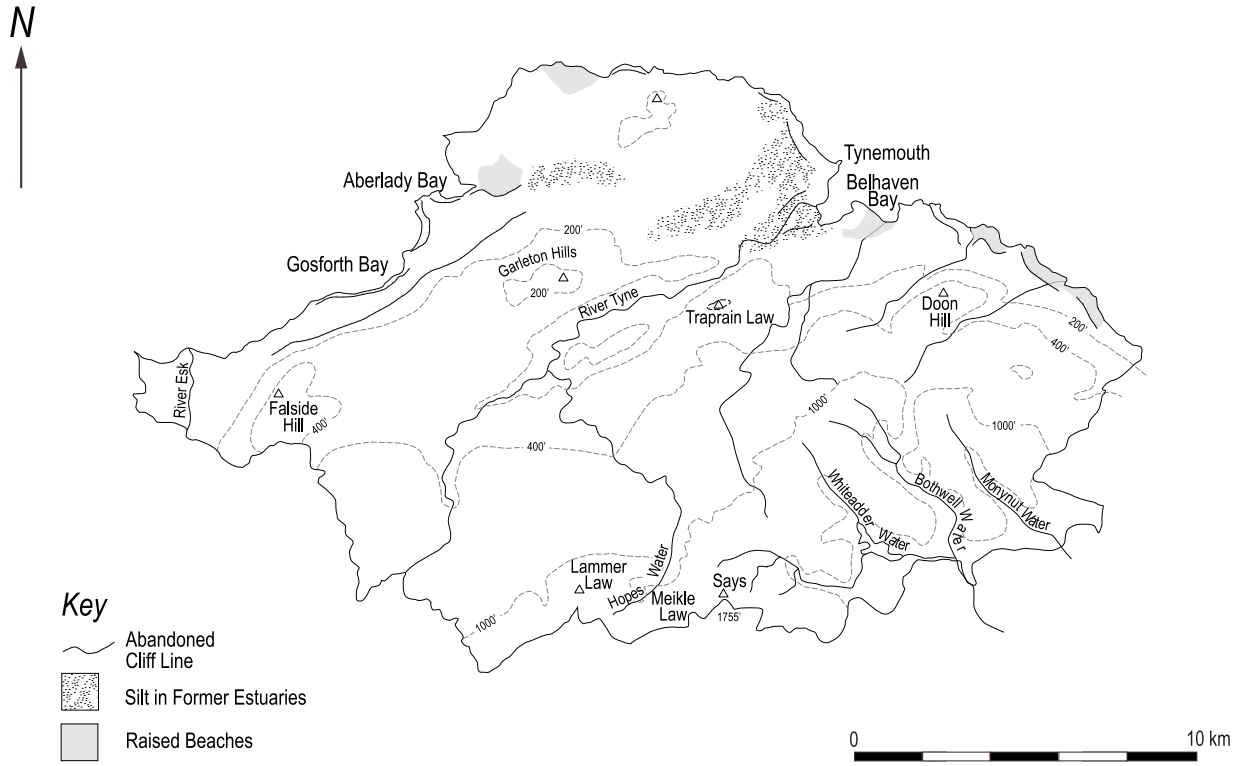
These drift deposits originated during and after the retreat of the last ice sheet around 15,000 BC. The retreat of the ice and subsequent events also resulted in a series of sea level changes, culminating in the main post-glacial transgression during the seventh and sixth millennia BC (Ballantyne 2004), which produced the highest sea levels. The subsequent retreat of the sea left raised beaches and relict cliff lines around the coast. During this main transgression, the lower-lying ground of the Forth Valley was completely covered in water (Ballantyne and Dawson 1997; Coles 1998; Ballantyne 2004) (Figures 1.5 and 1.6).

The changing post-glacial environment was characterised by a recolonisation of the land by flora and fauna. This process involved the gradual replacement of treeless tundra and open grasslands by a landscape hosting flora, including trees, more suited to a temperate climate. This may have commenced with birch (*Betula*) about 8500 BC, followed by hazel (*Corylus*), oak (*Quercus*) and elm (*Ulmus*); this mixed woodland dominated until about 3000 BC (Tipping 1994; 1997a).

As the climate and landscape changed with the shift from late glacial and to early post-glacial conditions (*c.* 11000–9000 BC), a wide range of large mammals populated the region, with Arctic species eventually being replaced by temperate ones (Kitchener *et al* 2004). Some terrestrial species, such as wild horse, may have lingered briefly as tundra turned to birch woodland; others, such as reindeer, would have been driven further north (Kitchener 1998, 66–71). The spread of recolonising woodland would have encouraged the influx of other mammals, including red deer and auroch, and probably brown bear, beaver,



1.5 The extent of the maximum marine transgression around the Firth of Forth (after Edwards and Ralston 1997, 40).



1.6 Map of key surfaces' features (silts, raised beaches, etc.) (after Whyte and Whyte 1988, 12).

wolf, lynx and wild pig. For this period, there is evidence for the presence and exploitation of marine mammals, including a variety of pinnipeds, such as seals and walrus, and cetaceans, including porpoise, dolphins and whales (McCormick and Buckland 1997; Kitchener *et al* 2004). There is also clear evidence for the exploitation of various bird species, shell fish and fish (see Chapter 8). Together, these animals provided a source of food as well as a variety of raw materials, including skins, bone and antler for use as clothing, tools and shelter.

In subsequent millennia, the environment and landscape continued to be affected by natural processes. There is, for example, evidence for a tsunami that swept the eastern seaboard of Scotland during the late fifth millennium BC (Smith *et al* 2004; Tooley and Smith 2005), particularly from Lochhouses, Dunbar (*ibid*, 14). Recent analysis has also highlighted longer-lived climatic processes. Work at Temple Hill Moss, Balerno, for instance, has found evidence for a cycle of increases and decreases in bog surface wetness, with each turn of the cycle lasting about 1100 years (Langdon *et al* 2003; Langdon and Barber 2005). The character of the wider ancient environment may have been influenced by these climatic changes.

From the fifth millennium BC, there is also evidence of significant human intervention in the landscape. There is some evidence for anthropogenic disturbance of woodland before the fourth millennium BC in the wider region (Innes and Shennan 1991; Tipping and Milburn 2000), although the role of clearings and fire in ancient woodland management has long been debated (for example, Mellars 1976; Edwards 1990; Moore 2000; Mason 2000). For the fourth and third millennia BC, palaeo-botanical analyses point to a dynamic and variable patchwork of localised clearance and regeneration (cf Smith and Whitehouse 2005, 136–7), with some evidence for a higher proportion of cereal pollen during the first phases of clearance in the fourth millennium BC (Tipping 1994). There is also evidence that the fourth millennium BC saw the introduction (or development) of domesticates, including cattle, pig and sheep. The evidence suggests that people increasingly relied on domestic animals during the subsequent millennia, with changing emphasis on different species. For example, evidence from further afield suggests that pigs were particularly favoured in the third millennium BC (Albarella and Serjeantson 2002), while cattle were more dominant during the second and first millennia BC (Smith 2000).

Table 1.1 Changing increases in bog surface wetness and comparatively dry phases (based on information in Langdon and Barber 2005, 556)

Dry	*Wet*
4900 BC	
	4700 BC
4400 BC	
	3900 BC
	3350 BC
2900 BC	
	2250 BC
	1900 BC
1750 BC	
	1450 BC
1250–900 BC	
	700–500 BC
AD 100	

By the beginning of the second millennium BC, there had been more extensive clearance of woodland in both lowland and upland areas (Tipping 1994, 31). The middle part of the first millennium BC saw a burst of very intensive woodland clearance, and by the time the Romans arrived in Scotland around AD 80 the forests had been largely cleared (Innes and Shennan 1991; Dumayne-Peaty 1993; Dumayne-Peaty 1999). The Roman presence may have had an impact on the regeneration of woodland, with regression of agricultural activity (Whittington and Edwards 1993), but this was clearly a complex, localised phenomenon (Dumayne-Peaty 1999, 136).

The archaeological context

The excavated sites

The locations of the archaeological remains encountered along the route of the A1 clearly related to the local character of the physical environment, as well as to cultural factors and the character of modern farming.

Because the A1 runs along the fertile East Lothian coastal plain, the land it crosses has been inhabited and farmed for millennia. Modern ploughing has destroyed upstanding remains and truncated ancient floor deposits and ground surfaces. All of the excavated sites had been truncated or disturbed by ploughing to some degree, although at Eweford West, Eweford Cottages and Phantassie some stone-built features survived.

The subsoils encountered along the road corridor varied considerably, and between Haddington and Pencraig Hill they consisted mainly of stiff, sandy clays, with abundant modern field drains. This section of the route was notably devoid of archaeological remains, probably because past activity had penetrated these soils to a shallower depth and so any archaeological remains had been entirely removed by modern ploughing. It is also possible that prehistoric people had occupied this area more sparsely than others, because of the difficulty in cultivating the heavy, poorly draining soils. On Overhailes Farm, where the prehistoric sites of Pencraig Hill, Pencraig Wood and Overhailes itself were discovered, conditions changed abruptly to lighter, sandier soils, with areas of alluvium along the valley bottom. To the east of Howmuir Farm, the subsoils became more dominated by gravel within a sandy matrix.

Beyond the effects of the plough on archaeological survival and the varying nature of the soils along the route, the distribution of archaeological sites discovered also appears to be linked to topography. Many of the sites discovered sat on high ground, near the summits of eminences, or above breaks of slope leading down to the river valley. It seems no coincidence that prehistoric sites began to be discovered as the corridor approached Traprain Law. This hill has always visually dominated the area. As Chapter 11 discusses, generations of people left different marks on the Law, evidence for its changing but enduring significance. It seems to have had a strong gravitational pull on the imaginations, belief systems and ways of life of the prehistoric inhabitants of East Lothian over many millennia.

The fieldwork involved the excavation of significant archaeological remains at 11 locations (Figure 1.3). The character of the archaeology at each of these locations was distinctively different.

At Pencraig Hill (NGR: NT 5673 7632), under the direction of Kirsteen McLellan, a team excavated the remains of a trapezoidal enclosure that contained the remains of a pyre dating to the fourth millennium BC (McLellan 2003; see Chapter 2). As these remains were discovered during topsoil-strip monitoring while the road was being constructed, the excavation was carried out over two weeks in July 2002 (Figure 1.7). The site lay on a level terrace on arable ground, on the south-western flank of Pencraig Hill, at 85m above OD. From here, the ground fell away in long, cultivated slopes to the River Tyne.

At Pencraig Wood (NGR: NT 5692 7645), under the direction Kirsteen McLellan, a team excavated several pits over the course of two weeks in May 2002, some of which contained pottery and cremated human bone dating to

the third and second millennia BC (McLellan 2002a; see Chapters 4 and 5). This site lay on arable ground, on top of a ridge that forms the western flank of Pencraig Wood, at 90m above OD.

Excavations at Overhailes (NGR: NT 5770 7635), directed by Eland Stuart over five weeks in May 2002, investigated numerous pits and post-holes, some containing pottery and stone tools dating to the fourth and third millennia BC (Stuart 2002; see Chapter 4). The site lay on arable ground at about 70m above OD, on a small, natural shelf in a long slope that descends from Pencraig Hill to the River Tyne, looking south toward Traprain Law. The shelf was formed of bedrock that outcropped (after topsoil stripping) on the north and south, bracketing the archaeological features. The features were cut through a deposit of colluvium that had accumulated between the outcrops. After the features were excavated, the colluvium was removed by hand to check for earlier features, but none were found. The exposed bedrock was also swept clean in what proved to be a fruitless search for prehistoric rock art.

1.7 Excavation underway at Pencraig Hill, August 2002.

At Phantassie (NGR: NT 5961 7688), Olivia Lelong directed the excavation of an extensive farmstead, comprising stone-built structures that dated to the late first millennium BC and early first millennium AD (Lelong 2002; see Chapter 7). The site was first discovered during evaluation in February 2002. At this point in the landscape, the corridor crossed the break of slope at the 60m contour before running diagonally downhill to continue eastward. This part of the corridor was intensively targeted during the evaluation for two reasons. Its topographic position, at the break of slope above the river valley, is shared by several cropmark enclosures in the area (for example, Whittinghame, Overhailes, and so on), and it appears to have been favoured for later prehistoric settlement. The field in which the site lay also contained an extensive spread of rubble, including stones of various geological origins, hinting that archaeological remains had been disturbed here.

The evaluation at Phantassie confirmed the presence of substantial, stone-built structural features and cobbling, along with deposits containing prehistoric pottery (Figure 1.8). However, it proved difficult to establish the extent of the site at the evaluation stage because it was covered by a deposit of colluvium (005), with areas of bedrock outcropping in places. This deposit had to be removed by hand to avoid disturbing the stony features beneath, so the true extent and nature of the settlement only appeared gradually through hard manual labour during the first few weeks of the excavation. In all, the excavation was carried out over 10 weeks in May–July 2002. As the excavation proceeded, a large, open area was revealed, allowing the site to be recorded in considerable detail. Because of the constraints of the road-building programme, the site was not fully excavated. Towards the close of the excavation, slot trenches were dug through buildings and deposits to find evidence of the earliest activity on the site. While this did provide glimpses of the nature and date of that earliest activity, large sections of the site were not fully excavated, meaning that the picture of the earliest phases remains partial.

The excavations of a short line of pits associated with fourth-millennium BC pottery at Knowes (NGR: NT 6074 7727) and of prehistoric linear features at Howmuir (NGR: NT 6205 7739) were directed by Kirsteen McLellan over two weeks in May–June 2002 (McLellan 2002b and 2002d; see Chapters 3 and 6). Both lay at about 30m above OD, on level ground immediately south of the railway line.

Due to the timetable of the construction programme, a prehistoric enclosed farmstead at Biel Water (NGR: NT 6485 7742), dating to the first millennium BC, was recorded through salvage excavation by a team in one day in September 2002, under the direction of Gavin MacGregor. Excavation here focused on the remains of a sunken structure containing artefacts and animal bones (MacGregor 2002; see Chapter 6). The site was situated on level ground, at about 20m above OD, to the east of the Biel Water.

1.8 Excavation of Structure 10 at Phantassie, June 2002.

At South Belton (NGR: NT 6508 7746):, two large pits dating to the first millennium BC were excavated under the direction of Kirsteen McLellan over one week in October 2002 (McLellan 2002d). These pits contained midden material, including shell, bone and broken artefacts (see Chapter 6). The site lay at about 20m above OD on level ground.

The partial remains of a sub-rectangular stone-built structure were excavated at Thistly Cross (NGR: NT 3656 6774) under the direction of Dave Swan over two weeks in August and September 2004 (Swan 2004). A small assemblage of prehistoric pottery and a cup-marked stone were associated with the structure (see Chapter 6). The site was partially sealed beneath the southern verge of the existing road line. It was located at about 25m above OD and lay in a natural hollow. The original ground level rose slightly to the north and probably obscured views to the Firth of Forth beyond.

At Eweford West (NGR: NT 6655 7735), evidence for intermittent activity from the fifth to the first millennia BC (see Chapters 2, 4 and 5) was excavated by a team from November to February 2001–2, under the direction of Gavin MacGregor (MacGregor and Shearer 2002). At the same time, two pit alignments and an enclosure dating to the third millennium BC, were excavated at Eweford East, under the supervision of Ingrid Shearer (MacGregor and Shearer 2002; see Chapter 3). The site of Eweford West lay at about 30m above OD, on top of a slight knoll running south-east to north-west. Where the ground fell away to the east was a field ditch that may have been a canalised burn. Eweford East lay to the east of the ditch on relatively flat ground, at a height of about 25m above OD. Part of the Eweford East site was a Scheduled Ancient Monument. As the result of the long sequence of activity at Eweford West, the archaeological remains were stratigraphically complex. Apart from a trench running across the site, opened during the initial evaluation (Figure 1.9), the site was 100 per cent excavated in an open area. The deposits in the central part of the site comprised a truncated earthen mound that sealed traces of earlier structures. To either side were successive deposits filling ancient quarry scoops. The earliest of these deposits related to activities which took place when the monument was upstanding, which had in turn been sealed by material collapsed from the adjacent mound. These deposits had then been sealed and/or truncated by the construction of a cairn that contained deposits of burnt human bone.

The excavation at Eweford Cottages (NGR: NT 6695 7738, at *c.* 30m above OD), directed by Lorna Innes over six weeks in October–November 2002, recorded part of a first millennium BC enclosed settlement (Innes 2003; see Chapter 6). As part of the upgrading of the A1, a stretch of the Eweford to Bowerhouse C road was to be removed and the land returned to agriculture. The grubbing up of the C road presented an opportunity to examine one edge of a large, cropmark enclosure (NMRS NT67NE 123).

The road appeared to run over the western edge of the enclosure, and this portion of it was not Scheduled; the remainder, lying in fairly level arable ground to the east, is Scheduled. The excavation was somewhat complicated by the remains of an earlier, cobbled road which underlay the modern tarmac one, the stones of which were compressed into earlier archaeological features.

Various other isolated remains were also recorded during topsoil-strip monitoring, undertaken by Paul Fox, Dougie Gordon, Donna McGuire, Sam McKean, Charlie Miller, Kylie Seretis and Dave Sneddon; the results are incorporated at appropriate points throughout this volume.

1.9 Aerial photograph of evaluation underway at Eweford East and West, November 2002.

The archaeological background

The excavations listed above together form the most extensive programme of intrusive archaeological work ever to have been undertaken in the Lothians, and their results make a significant contribution to a body of archaeological knowledge produced through past work in the region.

The Lothians have long been a focus for archaeological investigation, and a significant body of archaeological evidence now exists for the area. A review of the evidence (Lelong and MacGregor forthcoming), produced in anticipation of this volume, synthesised the known archaeology from East and Mid Lothian and assessed the models or frameworks of thought that have been used to interpret it. In the following, a summary of that review is provided to give a broader archaeological context to the archaeological programme associated with the A1 upgrade.

Evidence for earlier prehistoric activity in the Lothians has generally emerged in a haphazard and piecemeal fashion. The coastal sand dunes have yielded artefact-rich middens, testifying to activity during the third and second millennia BC (for example, Gibson 1982). There have been a number of important discoveries in recent years, among them the remains of a structure dating to the eighth millennium BC at East Barns (Gooder 2003). Over the years, a considerable body of evidence for the treatment of the dead has also accumulated.

The later prehistoric archaeology of the region has received more deliberate and intensive investigation. This partly stems from the visibility of many sites of this period, particularly as enclosures recorded as crop marks or substantial, upstanding monuments. Several such sites have been excavated, including the enclosures at St Germains (Alexander and Watkins 1998) and Port Seton (Haselgrove and McCullagh 2000). Although awaiting full publication, the excavation of Broxmouth was another significant episode of research (Hill 1982b). Development programmes have led to the discovery of extensive cist cemeteries, such as that at Thornybank (Rees 2002). Most recently, programmes of archaeological research have focused on the prominent enclosed hill of Traprain Law (Armit *et al* 2002) and on enclosures in its environs (Haselgrove *et al* in prep).

Building on these individual programmes of work, the study of the archaeology of the Lothians has contributed to the development of various, more general models explaining the nature of past settlement patterns and the reasons for change. The dominant models here range from explanations for the transition to farming from hunting-gathering-fishing to the emergence of enclosure and tribal society during the later prehistoric period (see Lelong and MacGregor forthcoming). Several synthetic studies of the region's prehistoric past have made significant contributions to our understanding of later prehistoric land management (Halliday 1982),

economies (Macinnes 1984) and the relations between indigenous inhabitants and the Roman army (Macinnes 1989). Despite this considerable body of past work – both fieldwork and synthetic analysis – several authors have recently called for a fresh burst of investigation to better understand the prehistory of south-eastern Scotland, including the Lothians (Armit 1999, 72; Haselgrove 1999, 262; Haselgrove and McCullagh 2000, 189).

The approach and structure of the monograph

The approach: Past lives grounded in changing landscapes

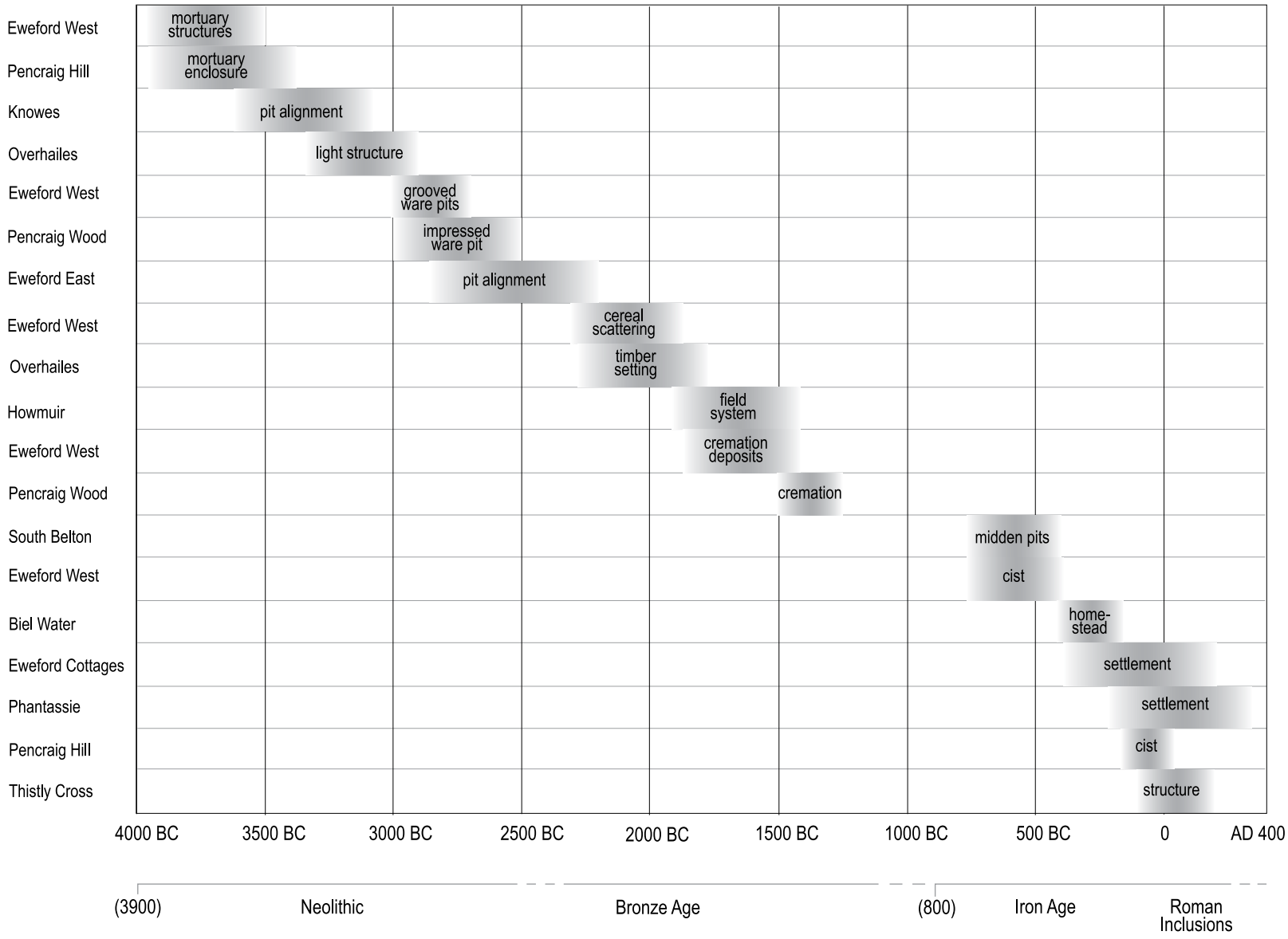
In this context of a rich body of past archaeological work, but where it also seems necessary to re-examine interpretations, the A1 upgrade has provided a significant opportunity to further our understanding of the prehistoric past of the Lothians. The significance of this opportunity is closely linked to the nature of the development itself and the landscape approach it allows.

Linear route projects, such as roads and pipelines, present valuable opportunities for the archaeological examination of large transects of land. These opportunities have only been sporadically exploited in the past. Some of the early archaeological programmes structured around linear developments, it is true, did recognise the value of moving outward from individual sites and 'setting sites and monuments within their contemporary landscape' (Fasham 1988, 83), and others have taken a wider view in terms of understanding and contrasting the character of human activity over long periods of time (for example, Mudd 1999). However, there remain many examples of sites reported individually within one volume, like beads on a string (for example, Catherall *et al* 1984; Price *et al* 1997). In such site-focused reports, the environs of sites and the interrelationships between them are often only skimpily considered. Some projects which do move beyond the sites themselves to more specifically address the surrounding areas – contrasting upland and lowland regions, for example (for example, Lambert 1996; Vyner 2001) – remain limited, as they seem too focused on the environs of the infrastructure project rather than on the changing landscapes which people inhabited in the past.

This variety in approaches to linear route projects reflects the challenges inherent in relating excavated sites to their past environs. This is partly because the very concept of a 'site' is deeply problematic. The extent and nature of past human activity in one particular place are difficult to define, and many sites produce evidence of several phases of activity, whether continuous or intermittent (Foley 1981; Dunnell 1992; Carman 1999). The problems we encounter in defining 'sites' stem from our attempts to define the spatial and temporal boundaries of past human activity. However, in fact, people's lives were not usually so strictly bounded; their episodes of activity in particular places were linked to other routines that reached out into surrounding spaces. Their actions could also possess considerable temporal depth; they arose from earlier traditions or memories and from historically shared perceptions about the world. Given this, it seems that a sound approach to the archaeological remains found along a linear route is to ask how individual sites illuminate what people did in the landscape that contains those sites. This approach has motivated the analysis and publication of the A1 excavations in a single volume, and throughout we have tried to address the temporal rhythms and changing nature of inhabitation in the landscapes of East Lothian.

The term *landscape* is a complex and often over-used one, and it is notoriously difficult to define (Bender 1993; Gosden and Head 1994). We use it here to mean not simply physical topography or space, preferring the terms *area*, *region* or *environs* for that purpose. We understand *landscape* to mean the cultural environment, a dynamic interface between people and land. A landscape consists of complex interactions between topography, geology, climate, soils, animals and plants, people's perceptions and beliefs about those things, and their actions in space and time. A landscape is therefore constantly changing, sometimes quickly and sometimes very slowly, through the results of natural processes and human thought and activity. When we study an archaeological landscape, we are studying the evidence for the changing nature of these dynamic interactions – not a single landscape, then, but *landscapes*.

The archaeological remains discovered during the A1's upgrading result from human activity spanning at least five thousand years, from the fifth millennium BC to the early first millennium AD (Figure 1.10). In order to realise the full potential of these remains, we have tried to extract the story of what people did at each place over time, but also to investigate how these site-specific activities related to the wider physical and cultural environment – in short, to explore each site's contemporary setting, as well as the landscapes that connected various sites at different times. This has involved considering not just the topography, geology and other natural features of the land, but how people engaged with that environment at different times. The landscapes of the A1 were imbued with different associations, meanings and memories in prehistory; they had cosmological aspects, deriving from the beliefs people held about the world, and historical aspects, deriving from the stories people told about the past. These landscapes did not consist simply of physical spaces, nor did they exist wholly in human perception, but were the places



1.10 Timeline showing the calibrated date spans of the excavated sites.

where physical space and perception coincided (Ingold 1993; Lelong 2000; Baines 2004).

People's actions in prehistoric Lothian were motivated by economic, political, social and symbolic concerns, and all of these aspects of life had potential effects upon the contemporary landscape. For example, felling trees in the prehistoric past might have been motivated by the desire to create fields for cultivation; to obtain fuel or building materials for houses or ceremonial structures; to clear views for aesthetic reasons or religious beliefs, or to reveal named topographical features. Small episodes of clearance might have had incremental effects over several generations, eventually and radically changing the character of the landscape by removing forest cover. In turn, the uses of the felled timber would have had effects upon the natural and built environment, whether that timber was burnt in advance of cultivation, altering the soil chemistry and vegetation, or was taken away for use in construction. Its use in building projects created other chains of interaction, in how buildings were erected, the spaces they framed and what took place inside and around them, and the traces left in the soil through their use and abandonment or destruction.

We also recognise that people were not necessarily free to act however they liked. Their behaviour was bound by certain physical, social and conceptual constraints. To ward off hunger and death, for example, members of communities had to do certain things at certain times: milk livestock, sow seeds, harvest crops, collect fuel and so on. Social constraints were equally powerful. Unequal power relations would have given some greater authority and bound others in servitude or even slavery, and social conventions may have barred some members (based on age, gender, status or roles) from doing certain things. Other beliefs about the spirit world, including the dead, may have also directed or constrained behaviour; people probably saw it as imperative to act in certain ways or to build certain monuments to ensure spiritual safety.

In understanding the past landscapes of the Lothians, in exploring people's interactions with each other and their environment, we have looked to a further group of concepts to help structure our interpretations. Some of the terms associated with these concepts, and which we use in the following chapters, merit further definition here. Many of the daily, seasonal and annual routines of people's lives in East Lothian centred around their *dwellings*, which contained *households* made up those people – linked by kinship or other relationships – who cooked, ate and slept beneath the same roof and who worked in and around their dwellings (for example, Allison 1999). A *settlement* could consist of a single, isolated dwelling and the space around it that the household habitually occupied, or of several dwellings clustered together. The members of households who identified themselves as a social group constituted a *community*. The members of that community may have lived together in a settlement, and we often employ the term in that sense, but it is also possible that a community could have consisted of the *inhabitants* of different settlements, who defined themselves as a community based on shared religious beliefs, political cooperation or kinship connections (for example, Yaeger and Canuto 2000; Armit 2002). The way that a landscape was *inhabited* at any particular time lay in the arrangements and character of different dwellings, the make-up and activities of households and communities, and the nature and frequency of their engagement with their environs.

While we find these concepts useful tools for interpreting the past and believe them relevant to how people ordered society, we also recognise that they were never static entities. How people defined *household* or *community* at one time may have differed enormously from how a later generation defined them. In Chapter 11, we draw out the evidence for these differences in society over time.

Because we are mainly concerned with how East Lothian was inhabited at different times in the prehistoric past, we have not devoted much space to identifying and exploring comparanda – either monuments similar in form or comparable practices – from other regions. However, we do refer to wider traditions to some degree in Chapters 8–10, where they help to illuminate the Lothian evidence.

Our challenge in this volume has been to establish what people did in the past at particular places along what is now the A1, and in their environs, over eight millennia. We seek to understand how people knew and inhabited East Lothian at different times in the prehistoric past: the routine activities that moved their lives forward, the ways that they journeyed through and interacted with their environs, the texture of the meanings they gave to the world and the physical and cosmological legacy that each generation left for the next.

The structure of the monograph

Throughout, for the reasons laid out above, this volume draws together the results of excavation and analysis of the sites encountered on the route of the A1 upgrade, and further interprets the results in their contemporary and landscape contexts. The integrated approach has been adopted partly because the various sites were encountered through a single infrastructure project, but mainly because it seemed to offer more interpretative potential. The volume begins with the archaeological remains discovered during the A1 upgrade and then, like the road itself, it extends into the wider region to understand them in more complex ways.

We have attempted to write about the results of the excavations and post-excavation analyses in ways that would prove useful and interesting both to fellow archaeologists and specialists and to those seeking a more general appreciation of the changing character of Lothian's inhabited landscapes. In writing the account of each excavation, we have chosen to present the story of what took place at the site in clear and succinct terms, often in the active voice and supported by references to the physical evidence, rather than leading the account with mechanistic description. The results of specialist analysis of artefacts and environmental remains have been integrated into the account of each excavation. Text boxes written by the specialists allow a closer focus on particular artefacts, activities or processes for which we found evidence.

Chapters 2 to 7 present the results of the excavations and post-excavation analysis for the 11 sites encountered during the A1 upgrade. The chapters are ordered chronologically, from earlier to later evidence; for those sites with various phases of use spanning several millennia (including Eweford West, Pencraig Hill and Pencraig Wood), the relevant phases are presented over more than one chapter. This chronologically ordered treatment of the results helps to illuminate the changing character of human practice over time in East Lothian.

The remaining chapters build on the detailed results. Chapters 8 to 10 set the A1 excavation results in a wider context, considering the evidence from chronologically and geographically comparable sites. Chapter 8 treats the period from the ninth to fourth millennia BC; Chapter 9 considers that from the late fourth to late second millennia BC; and Chapter 10 treats the first millennium BC and early first millennium AD. A final synthetic chapter (11) draws together the observations and interpretations developed in the earlier chapters in two sections: the first reviews the long term changes which have taken place in the Lothians, while the second considers the evidence for the continuity of themes and certain aspects of life through prehistory. Chapter 12 contains a list of the technical reports and catalogues produced by specialists who analysed the artefacts, palaeo-botanical remains and soils from the excavations; because of their length, it was not possible to include these in printed form, and they have been deposited with the site archive, which is held by the Royal Commission on the Ancient and Historical Monuments of Scotland. It also contains a table of the 166 radiocarbon dates obtained. Throughout the volume, the radiocarbon dates for the A1 and any other sites are consistently presented in calibrated form (as 'BC' or 'AD') at 2 sigma; any exceptions are cited as 'bc' or 'ad'.

Woven together, the A1 discoveries take us on a journey from a landscape of forests punctuated by open ground 7,000 years ago, through ones that were gradually cleared, to landscapes that were a patchwork of fields with pockets of scrub and managed woodland about 2,000 years ago. These broad changes in the land's character accompanied changes in society. The A1 excavations revealed diverse archaeological remains, ranging from massive ceremonial monuments and small, light dwellings from the fourth millennium BC, to substantial farming settlements but few ceremonial sites from the first millennium BC. Running through these changes, however, were shared concerns and traditions: common threads related to agrarian cycles, long-held recollections, the continuing significance of certain places and beliefs in ancestral legacies. The following chapters explore the tensions between change and continuity in these ancient Lothian lands.