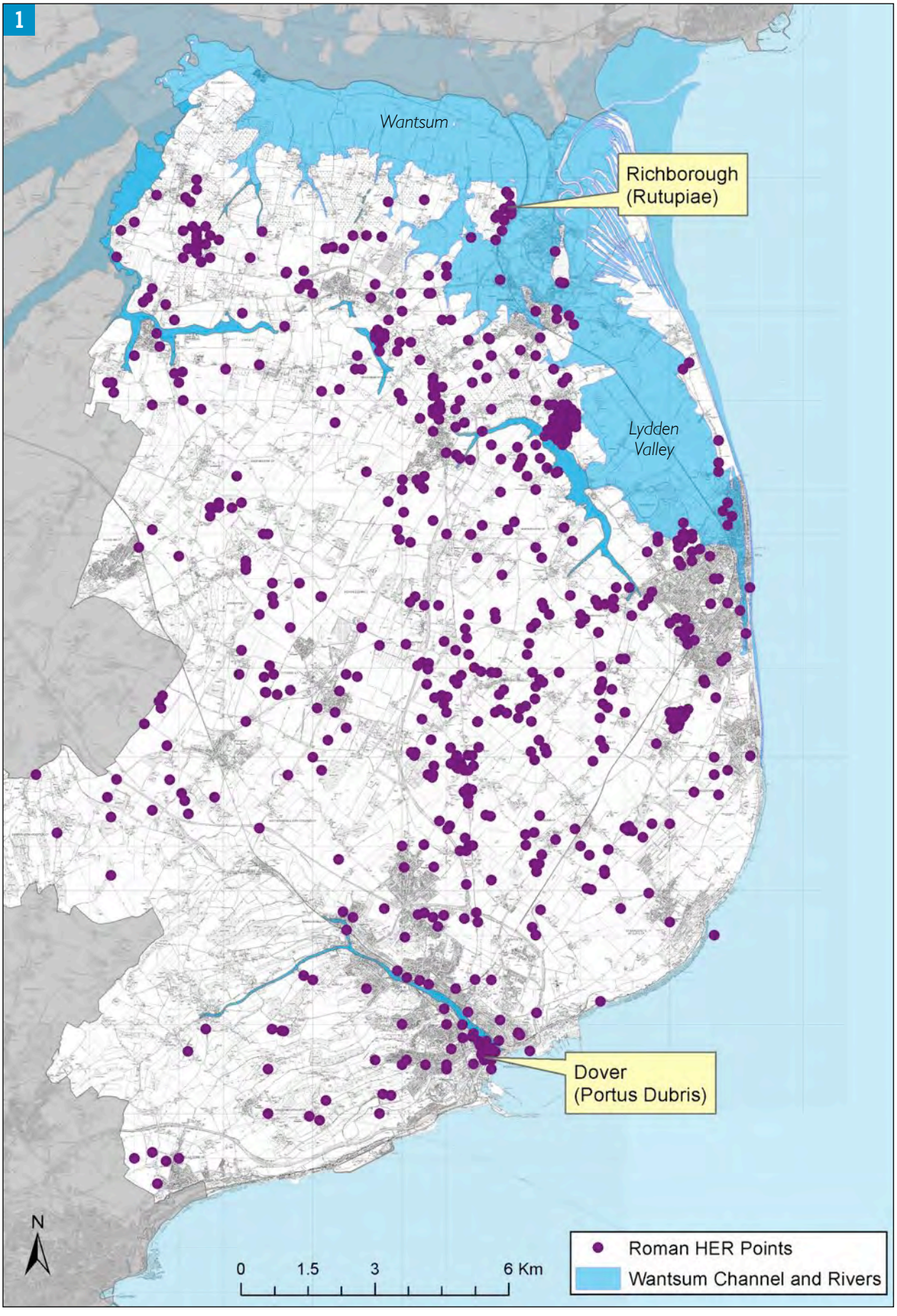
Appendix 1:
Theme 3.1 – The Roman Gateway



Cover *The Eastern Pharos at Dover*

Figure 1 *Distribution of all Roman activity within Dover District recorded on the Kent Historic Environment Record*

Theme 3.1 – The Roman Gateway: Roman invasion, ports and defences

Summary

3.1 Roman remains can be seen in many places across the country, but it is only in Dover District that the complete story of Roman Britain can be experienced; from the first expeditions of Caesar in 55 BC to the withdrawal of the last vestiges of Roman administration in *circa* AD 410. It is not surprising then that the District contains some of the country's finest Roman remains, from outstanding buried archaeology, to the tallest upstanding Roman building surviving in Britain.

Introduction

Caesar's Expeditions of 55 and 54 BC

3.2 The growing influence and expansion of Rome arrived on the doorstep of Kent in the first century BC. Trading contact between Britain and the continent and in particular Gaul was well established. East Kent with its natural anchorages and harbours in the Wantsum and Dover would have been particularly important in receiving this trade.

3.3 Claiming that the Britons had supported the Gauls against him in his conquest of that country, Caesar made preparations for expeditions to Britain. In the late summer of 55 BC he left Boulogne with a force of two legions arriving initially off *DVBRIS* (Dover) intent on landing within that natural harbour. Seeing the massed forces of the Britons on the overlooking cliffs, the Roman expedition diverted to an open beach on the east coast of Kent, generally thought to be around Deal or Walmer. The town of Deal and Walmer can therefore lay claim to being the location of the first recorded major event in British history.

3.4 Caesar's landing was opposed by the Britons but they were eventually driven back, a camp established at the beachhead and ambassadors and hostages received. The British weather and tides then took a hand, storms preventing the landing of Caesar's supporting cavalry and wrecking their beached fleet. The Britons renewed their attack on the Roman camp but were eventually driven off once again. Caesar realised he could not hold out over winter and with his fleet repaired as best he could, he returned to Gaul.

3.5 The next year Caesar returned better prepared with a force of five legions supported by cavalry. He landed in the same region as before, this time unopposed and marched inland to defeat the Britons in the Canterbury area. A storm again wrecked part of Caesar's fleet and he was forced to march back to the coast and set about their repair, beaching the ships and building a fortified camp to protect the work. Caesar returned to his campaign, defeating the massed Britons again near Canterbury and pursued them to the north banks of the Thames. Despite a diversionary attack on his beach head, Caesar defeated and forced the surrender of Cassivellaunus the Briton leader and accepted hostages and promise of tribute. He returned to Gaul with his entire army.

The Claudian Invasion of AD 43

3.6 Following Caesar's campaigns, Britain

enjoyed diplomatic and trading links with Rome, with tribute and hostages ensuring no direct military action. By AD 43 the political situation was in ferment and Claudius mounted an invasion, seemingly, to restore Verica, an exiled king of the Atrebates. Four legions and a similar number of auxiliaries under Aulus Plautius crossed the channel to begin the conquest of Britain.

3.7 There is much debate about where the invasion force landed. Richborough (Roman *RVTVPIAE*) with the sheltered anchorage of the Wantsum Sea Channel is generally thought to be the location though alternative scenarios have proposed a site on the Solent. The case for Richborough as the prime site of the invasion is strong, though given the size of the force assembled multiple locations are possible. Factors in Richborough's favour were the ease of the sea crossing from Gaul, the presence of the Wantsum anchorage, the subsequent development of a major entry port and its celebratory monument and the archaeological evidence. Excavations at the site have recorded a double ditch and bank of Claudian date, which is considered to be a beachhead defence.

3.8 Plautius and his legions marched inland to meet and defeat the British forces at a river crossing thought to be the Medway. The Britons were pushed back and pursued across the Thames before Claudius himself arrived for the final push on the Catuvellauni capital of *CAMVLODVNVM* (Colchester) and the surrender of the British in the south-east.

The Gateway to the Province

3.9 The subsequent centuries, as Britain came mostly under Roman rule, saw the growth of Richborough (*RVTVPIAE*) and Dover (*PORTVS DVBRIS*) as the major ports of entry to the province at the coastal end of the Roman road network that extended into London (*LONDINIVM*) and the province.

Richborough

3.10 Richborough, initially an important supply base for the conquest, saw the development of streets and timber buildings on the site of the early beachhead and the construction of a possible *mansio*, a hostel to provide bed and board to those on imperial business. A great monument, a quadrifons arch, was constructed by Domitian around AD 85, probably to celebrate the completion of the conquest of the island by Agricola. Its construction coincided with a boom through

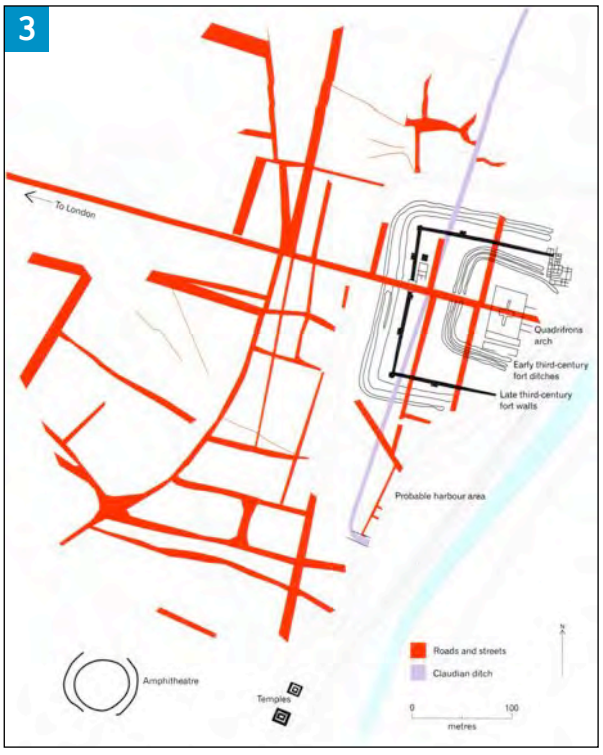


Figure 2 *Richborough Castle Aerial View showing the earlier 3rd century fort within the upstanding remains of the larger late 3rd century Saxon Short Fort.*

Figure 3 *Richborough forts and vicus revealed through geophysics survey*

the second century as stone buildings were constructed, roads re-laid and the port and its associated settlement (*vicus*) flourished.

3.11 The port declined in the third century possibly due to competition from other ports such as Dover. The military increased their presence and fortified the monumental arch, possibly taking advantage of its height as a look out. The monument was eventually levelled to make way for a Saxon Shore Fort built by the end of the third century and which continued into use as a base for the *Legio II Augusta* until their withdrawal to Gaul in AD 406. Coin evidence shows that Richborough was one of the last places in Britain to be supplied with Roman coinage.

Dover

3.12 The town and port of Dover owes its existence to the River Dour in whose valley it lies. The Dour originally a small chalk stream emerging from the North Downs has over time cut a steep sided valley through the chalk bedrock to emerge on the south coast of the District as the only significant breach in the world famous white chalk cliffs, strategically located at the narrowest point of the present English Channel. The mouth of the river, sheltered beneath the high valley sides would have provided a safe haven for boats and ships in the Channel. Its proximity to the continent would have been significant for its prominence in cross-Channel travel and international exchange from earliest times and the discovery of the Dover Bronze Age Boat in the early sediments of the river and the Langdon Wreck outside the river mouth underline this. While there is evidence of prehistoric activity and some occupation in the Dour valley, the first substantial evidence comes in the Iron Age with occupation deposits reported from Castle Hill and the town centre. There is suggestion that a hillfort lay on Castle Hill but this has so far not been proven.

3.13 The Romans took advantage of the sheltered estuary to create their important port of Dubris one of the most important

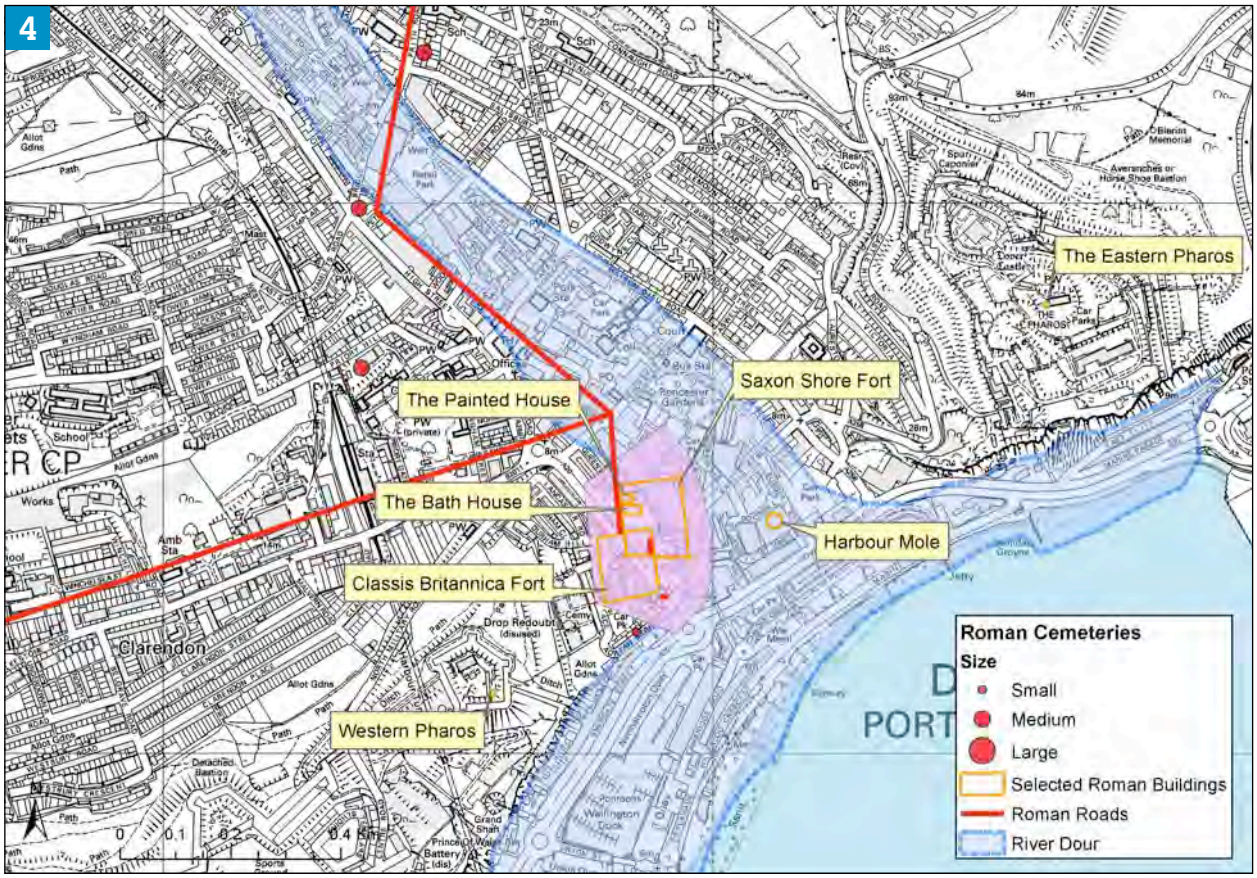
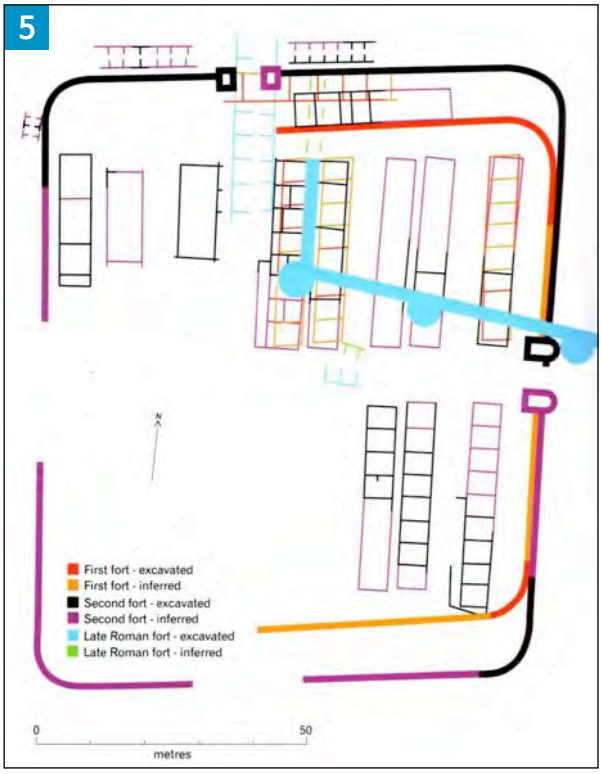


Figure 4 *Key features of Roman Dover*



entry points to the Province and a base of the *Classis Britannica*, the Roman naval fleet based in the Channel. Extensive archaeological work, primarily by Brian Philp and the Kent Archaeological Rescue Unit has provided much information on the development of the Roman harbour, *vicus* (extramural settlement) and the fortifications at Dover though the matter is complex and a great deal more remains to be learnt about Roman Dover.

3.14 Little is known about the Roman use of the Dour estuary until the second half of the first century AD when a Roman settlement seems to have been established on the western bank and a harbour established, probably in the latter part of the first century. The impetus for the development of a port at Dover may have been the presence of the Roman port at Boulogne which lay on the opposite side of the channel and provided an easy link between the new province and the continent.

3.15 Early in the second century, possibly around AD 117 a fort was constructed on the west bank of the Dour. Consisting of a wall and at least three barrack blocks, the fort appears to have not been completed before a new fort was started on the site around AD 130. This new fort, which extended over an area of about 1.05 hectares, suggesting a substantial military presence, lasted until around the early part of the third century. Association with tiles stamped *Classis Britannica* has been taken as evidence that the fort served as a fleet base. While large, it may not have been of sufficient size to be the principle base of the Roman fleet which is thought to be at Boulogne, but was certainly an important base and possibly started as a supply base to replace that at Richborough.

3.16 The settlement extended around the fort to cover an area of approximately 5 hectares and included buildings of considerable quality. A large bathhouse, constructed around AD 140-160, serving the military and civilian populations of Dover has been found to the north of the fort. Immediately north of the baths a complex of buildings includes exceptionally well-preserved painted wall murals interpreted as the remains of a mansio. These remains have been saved and are on display as the famous Dover 'Painted House'.

3.17 The harbour itself lay within the mouth of the Dour estuary. Harbour works included a substantial mole, which while protecting the sheltering vessels from the channel elements, probably also accelerated sedimentation of

Figure 5 *Layout of first two Classis Britannica forts and part of the later Saxon Shore Fort in Dover*
Figure 6 *Inside the Roman Painted House Museum. © Dover Museum (d08396)*

the estuary. Successive waterfronts have been found on the western side of the harbour that illustrate the subsequent narrowing of the estuary and reclamation of land at the edges for development of the town and forts. A pair of lighthouses was constructed atop the hills flanking either side of the harbour entrance to guide ships into the estuary and perhaps to also serve as watchtowers. The presence of these demonstrates the importance of Dover as a port of entry to the Romans.

3.18 The fort of the *Classis Britannica* was abandoned in the early third century and left to decay or perhaps demolished. The excavator of the fort, Brian Philp has suggested that the reason for abandonment was the moving of the fleet to campaign in the north of the province. The 'Painted House' continued in use until it was abandoned to make way for a new fort around AD 250 to AD 270 built as one of a chain of defences to protect the coast from raiders crossing the North Sea. The Saxon Shore Fort, covering an area of at least 1.5 hectares, was substantially larger and offset from the old Classis Britannica fort. The 'Painted House', partially demolished was buried beneath the western ramparts of the fort and the military bathhouse was encompassed and used within the fort. The Shore Fort is mentioned in the fifth century AD military list, the *Notitia Dignitatum*, as being occupied by Tungrecanian troops (from Tongres).

The Roman Landscape

3.19 Following the Roman invasion and establishment of the new province, the Roman administration of Kent imposed an administrative territory known as the *civitas Cantiacorum* centred at an important pre-Roman centre for the *Cantiaci* tribes at Canterbury. The ensuing period of Roman rule, lasting nearly 400 years saw some transformation of the geography of East Kent as the connections between the empire and the new province developed.

Communications

3.20 Whereas communication networks before the coming of the Roman's had been inward looking and connecting locally from settlement to settlement, the need to connect with the wider infrastructure of the empire and the province brought with it the development of a major network of roads. The first major road, developed soon after the invasion at the behest of the military would have been from Richborough to Canterbury and then on to the crossing of the Thames at London. Later the road from Dover to Canterbury developed, the *civitas capital* acting as a hub for the network in Kent. Other roads developed linking Dover with Richborough and Dover with *PORTVS LEMANIS* (Lympne) to the west. Other lesser routes have been inferred from the presence of land boundaries, Roman and Saxon cemeteries which often focused on the principal roads and the distribution of settlement sites. The development of the road network in Dover District is discussed in more detail in the accompanying paper Theme 4.1 Ancient Roads, Routes and Lanes. The routes from Richborough and Dover to

Figure 7 *Excavation at Queen Street in Dover. © Dover Museum (d17054)*

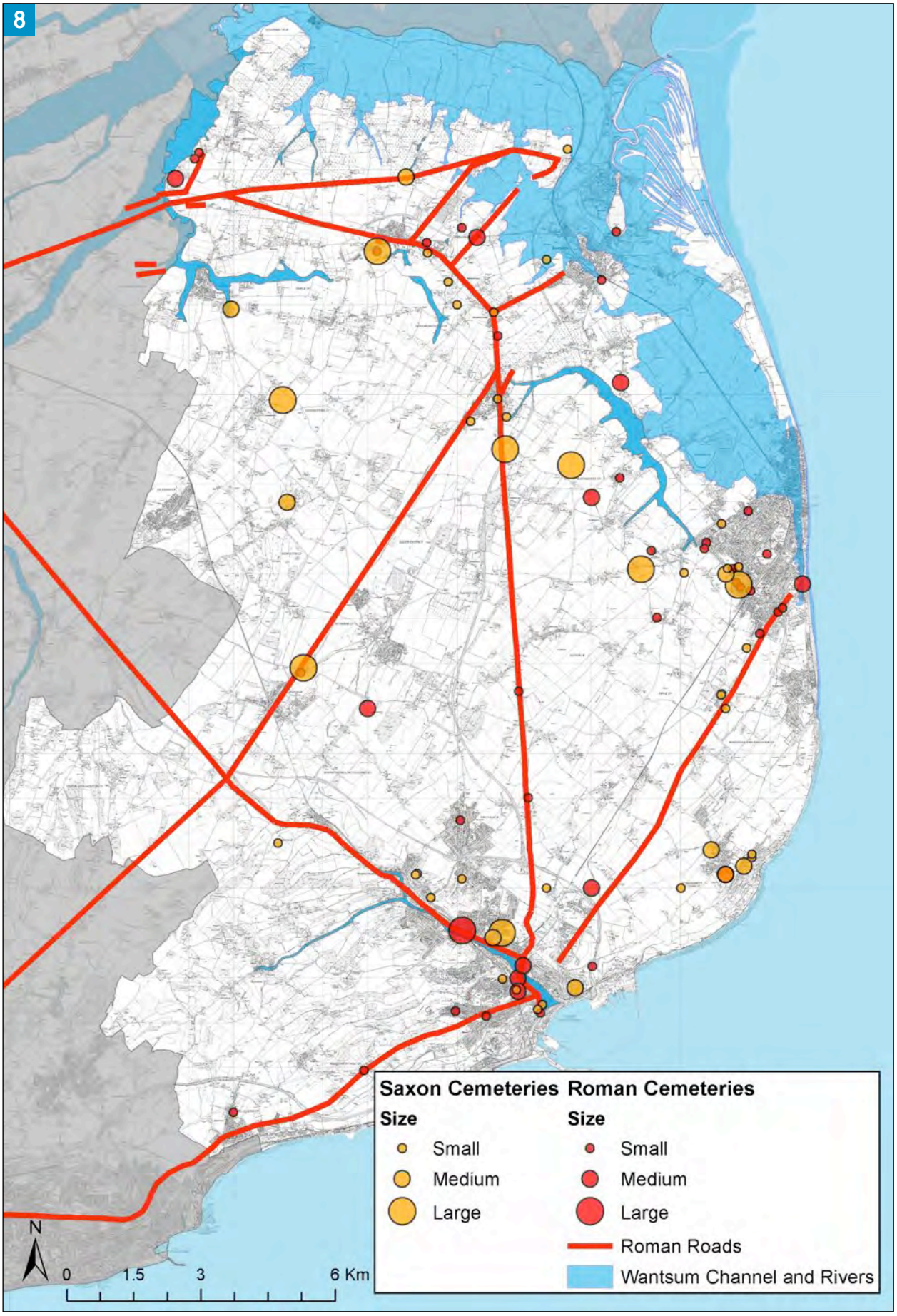


Figure 8 *Roman Roads, Roman and Saxon cemeteries*

Canterbury are listed in the second century Antonine Itinerary.

The countryside

3.21 The pre-Roman Iron Age saw a substantial increase in the population dispersed across the landscape. By the time of the Roman invasion much of the best farming land was probably under cultivation. The arrival of the Roman's had little effect on the farming practices of the native populations, some land may have transferred into the ownership of the incoming foreigners but the majority of the land was farmed by the native population from farmsteads as they had before the arrival of the Romans. Examination of the location of Roman finds in the Historic Environment Record illustrates concentrations on the chalk downlands and coastal areas of the District suggesting widespread use of that landscape. Recent research of the Lydden Valley, north of Deal has however indicated that reclamation of the salt marshes of the valley for grazing marsh was in progress during the Roman period demonstrating the need and pressure for additional land to farm.

3.22 The wealthiest landowners became the elite in the administration of the *civitas*. A demonstration of their prestige, wealth and willingness to embrace the new cultures of Roman Britain was the development of villas, more substantial buildings than the round houses that were previously available to them. These new buildings constructed wholly or in part in masonry varied greatly in size from the more luxurious residence complete with a bath house to something that was no more than a modest farm house. Many of the villas were constructed on established Iron Age sites and elsewhere in the county evidence for continual occupation from the Iron Age has been noted. In East Kent, the distribution of villas is sparse compared to West Kent, probably due to a preference for the elite to live in Canterbury and the two ports rather than countryside. Within Dover District five possible villas have been identified at Wingham, Sholden, Sandwich, Walmer and Ash. The latter has only recently been identified from aerial photography and it is likely that more villa sites will be found in the District in future. The Wingham Villa is particularly important, as its closeness to Canterbury and the presence of an early mosaic in the bath house suggests it is likely to have belonged to one of the early elite in the civitas.

3.23 By the second century Kent saw the development of small rural settlements alongside the road network. Several clusters of Roman finds can be seen focused on or close to the road network of the District. On the Dover to Richborough road an example of a Roman-British settlement which has been the subject of some limited recent fieldwork can be found at Hillcross Farm to the north of Eastry, strategically located at a point where several Roman roads intersect. Another settlement site that lies south along the same road at Maydensole Farm is a clear demonstration through the cropmark and finds evidence of an Iron Age settlement that has been bisected by the main Roman road but continues on as a Romano-British settlement. Other areas of Roman rural settlement can be found at Preston, Elmstone, Deerson Farm and Each End which all lie close to the Wantsum and the Richborough – Canterbury route, a settlement at Worth which focuses on a major Iron Age settlement and a Romano-Celtic temple. On the east coast of the District evidence of a settlement found on the extending Deal spit at Dickson's Corner demonstrates something of the population and land pressure in the rural Roman landscape.

3.24 Other than the general farming economy there is little evidence for specific industries developing in the District. Recent fieldwork at Mill Cottage near Nonington

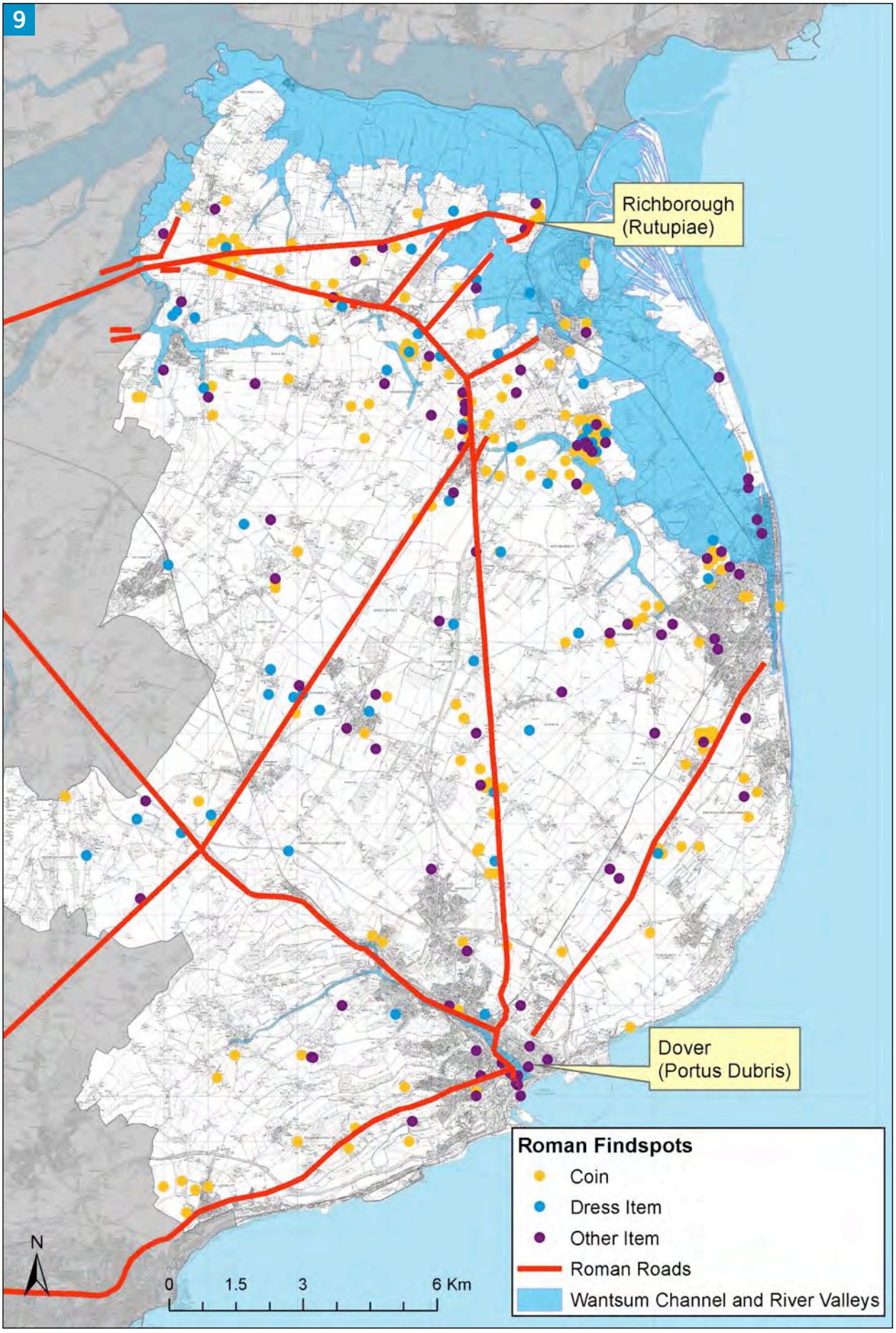


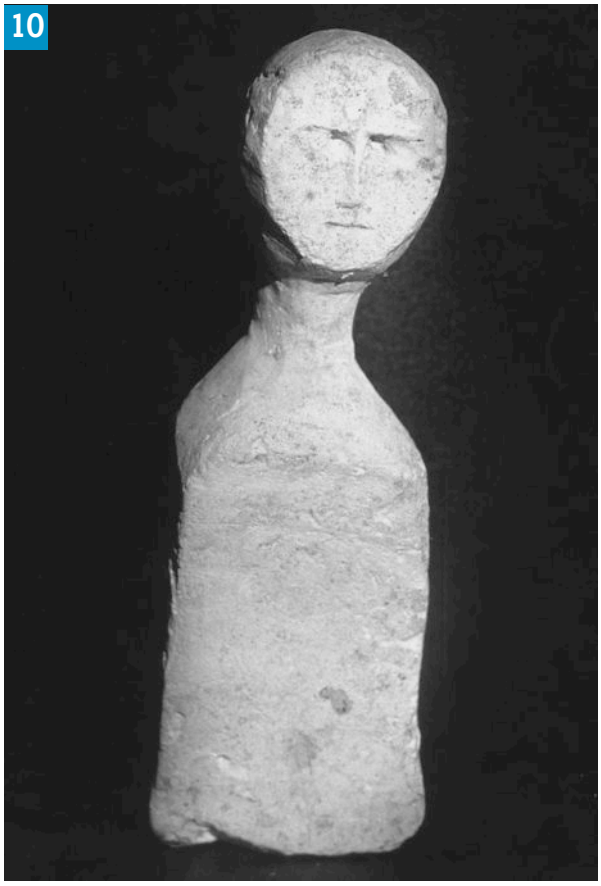
Figure 9 *Distribution of Roman Find spots recorded in the Kent Historic Environment Record*

identified specialist farming in the form of the cultivation and malting of spelt wheat, probably on an industrial scale and possibly serving the nearby towns. The Roman appetite for seafood probably meant fishing was a significant occupation on the coastline and Richborough was famous in the Roman world for its oysters, even being referred to by Juvenal in his Satires of the second century. Salt production was likely to have also been an important occupation in the marginal lands of the Lydden valley and the Wantsum Channel. Although not in the District there is evidence of Roman salt working at the northern end of the Wantsum Channel and there is no reason why such industry would not have been prevalent at the Richborough end. A pottery kiln has been recorded at Deerson Farm near Wingham though this is by no means indication of anything more than local production.

Burial and worship

3.25 Roman burial sites have been found in a number of locations around the District although no single major cemetery has been excavated to date. A mixture of inhumation and cremation burials have been excavated around Mill Hill Deal, a cremation cemetery at Deal and burials at Northbourne, Betteshanger, Dover, Walmer Place and Hillcross Farm are included amongst the identified sites. Roman burial sites normally sprung up alongside road and trackways and their locations combined with the evidence of Saxon burials provide a good indication of the former routes.

3.26 Sites of ritual and worship are less commonplace. A major Romano-Celtic temple has been found at Worth located on a raised ridge overlooking the Lydden sea valley and the southern approach to the eastern mouth of the Wantsum Channel. Two temples were excavated at Richborough in the 1920s. Domestic worship is evident in the archaeological record. An altar belonging to



the governor's transport officer has been found in Dover and a ritual shaft was discovered at Hammill Brickworks near Woodnesborough. A second ritual shaft has been examined at Mill Hill in Deal. The Mill Hill shaft is described as being 'boot-shaped' and was partially backfilled with Romano-British domestic waste sometime in the late first or early second century AD. Within the shaft a chalk statuette and small niche suggested a 'ritual' use, perhaps of Celtic origin, for the shaft. Also found in the Mill Hill area of Deal was a black pottery head of a statuette of Hercules, perhaps a religious object of domestic origin.

The end of the Romans

3.27 It is difficult to fully understand the last decades of direct Roman rule in Britain and the effect that withdrawal from the province had on its population. The reasons for the progressive withdrawal of the military to deal with matters closer to Rome is well documented and does not necessarily signal

Figure 10 *Deal Man - 'Celtic' style figure found within a ritual shaft, possibly Roman, at Mill Hill Deal. © Dover Museum (d20599)*

an abrupt end to the influence of the Roman umbrella. Many sites across Kent have shown a gradual decline or even abandonment during the third century though the *civitas capital* at Canterbury seems to have declined during the second half of the fourth century. It is likely that there was general widespread but gradual decline during the latter half of the fourth century with piecemeal decay of the Roman infrastructure. Certainly trade networks still existed as can be seen in the pottery evidence for this period and local manufacture was also in decline.

3.28 East Kent and in particular Richborough played a significant role in the final years of the Roman province. There is some evidence from stamped ingots and other finds that officialdom gathered in the eastern part of the county in the late fourth century. A late church has been excavated in the north-west corner of the fort and recent investigations have shown some expansion of the *vicus* in the fourth century. The fort at Richborough was one of the last Roman bases in Britain to have its garrison removed and it was also the place where direct contact was re-established with Rome in AD 597 with the landing of a Christian mission sent by Pope Gregory I and led by St Augustine. Most of classical society disappeared from the region in the intervening years though many Roman buildings survived and were in places reused by the re-established church.

Description of the Heritage Assets

3.29 Unsurprisingly, given the key role that the area had through the whole period of Roman invasion, rule and abandonment of Britain, Dover District has an incredibly rich resource of assets of the period. As well as buried archaeological remains which are widespread across the District, standing remains of the Saxon Shore Forts at Richborough and Dover, the towering Pharos on Castle Hill, Dover and the earthworks of the amphitheatre at Richborough are all impressive and visible remains of the Roman presence. At a landscape level remains of the former Wantsum Channel and the Lydden Sea Valley can be clearly discerned as historic features and many of the major roads in the District owe their origins to the network established by the Romans.

Caesar's Expeditions of 55 and 54 BC

3.30 Evidence for the expeditions by Caesar has to date been elusive but is likely to survive in the buried archaeological resource. The archaeological evidence may potentially include the remains of the beach-head camps, the naval repair camp, temporary fortifications away from the beach head camps and possibly the wrecks of the vessels lost in the storms during both campaigns. The late Iron Age archaeology of the District contains evidence of contact with the Roman Empire.

The Claudian Invasion of AD 43

3.31 The Claudian campaign is slightly better evidenced in the District's assets. The main feature is the partially excavated pair of ditches considered to be the defences of the **beach head at Richborough**. These survive as excavated features on display within the area of the fort at Richborough and run into adjacent farmland to the north and south of the fort, their presence as archaeological remains having been confirmed through aerial photography and geophysical survey. The remains fall within the protection of the Richborough Scheduled Monument. There are no other remains presently attributable to the invasion known in the District, however there is a high potential for evidence to be present amongst the archaeological assets of the District, in particular those on the Richborough site and in its surroundings.

Richborough

3.32 The important Roman port of entry at Richborough lies on an elevated island of land that was once surrounded by the waters and marginal marshlands of the former Wantsum Channel. The port lies on the south side of the eastern mouth of the channel which was an important navigable waterway during the Roman period. The island is approximately one square kilometre in size and the ports, fort and vicus at Richborough appear to be focused on the eastern half of it facing the eastern approach to the channel and its anchorage. The site of Richborough is an important heritage visitor attraction managed by English Heritage. The visitor site, which focuses on the area of the Shore Fort and the location of excavations in the early twentieth century, is set amongst mainly arable land. The majority of the known Roman remains are afforded the protection as a Scheduled Monument that covers an area of over 41 hectares.

3.33 Richborough was the subject of major excavations in the 1920s mainly by J P Bushe Fox. Focused on the area of the Shore Fort these excavations have provided a good understanding of the development of this part of Richborough and many of the principle features discovered by Bushe Fox are set out within the English Heritage site. Less is known of the areas surrounding the Shore Fort, though in the last decade a programme of geophysical survey, study of aerial photographs and limited excavation and geoarchaeological investigation has greatly added to our understanding of the wider site.

3.34 The main visitor site includes several of the principle known monuments at Richborough. The remains of the **first century supply base** were found during the 1920s excavations and probably extended outside the area that was investigated. These remains included a series of storage buildings arranged alongside the principle road out of

Richborough towards Canterbury and London. The foundations of one of the buildings are on display within the Richborough site. Likewise the remains of the possible ***mansio*** were also excavated and the foundations are still visible on the site.

3.35 The remains of a platform, upon which Domitian's great celebratory **quadrifons arch** stood, was found at the core of the site. The arch, clad in Italian Carrara marble stood to around 25 metres high and overlooked the sea approach to the port. The arch spanned the eastern end of the principle road out of the port to Canterbury and London and acted as a symbolic gateway to the Roman province.

3.36 The **fortification of the arch** in the early third century is illustrated by the excavated ditches that surrounded it. These ditches are still on display within the English Heritage site. The most conspicuous remains at Richborough are the massive flint walls of the **Saxon Shore Fort**. These survive on the three sides of the fort but the eastern side collapsed in antiquity and rolled down slope to lie on the shoreline of the Wantsum where they can be seen today.

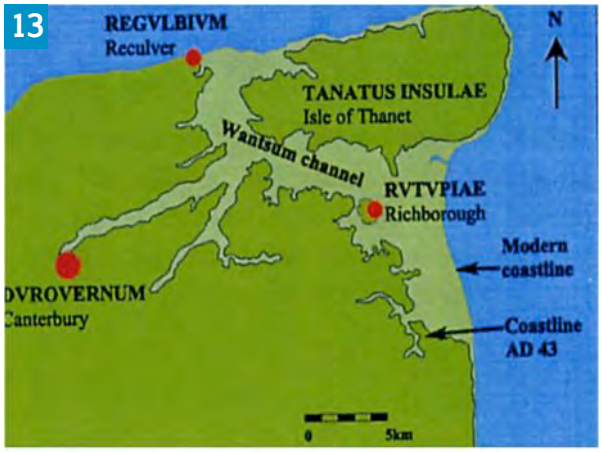
3.37 Away from the fortifications can be found the earthwork remains of the substantial **amphitheatre**. This lay in the south west of the port town and geophysical survey has shown that an area of the *vicus* was cleared to allow its construction. Curiously the geophysical survey also

Figure 11 Reconstruction of the triumphal arch at Richborough

highlighted the presence of what appear to be two large towers incorporated into the amphitheatre construction. Their purpose is presently unknown as, save for limited investigation in the nineteenth century; the amphitheatre remains have yet to be investigated.

3.38 The geophysical survey and aerial photograph transcription carried out by English Heritage in 2001 provided astonishing results. The surveys showed that beneath the arable fields lie the streets and buildings of an **extensive town** surrounding the Saxon Shore Fort. Behind the street frontages could

Figure 12 *Richborough Vicus reconstructed from geophysical survey and aerial photograph transcription. © English Heritage*



also be seen a complex pattern of enclosures, some of which are likely to relate to field systems on Richborough island that predate the arrival of the Romans. Within the settlement previous excavations have demonstrated the presence of at least two **Romano-Celtic temples**, cemeteries, ovens and stone built buildings.

3.39 Richborough commands an elevated position with, originally, distant views out over the former Wantsum Channel across to the Isle of Thanet in the north and over the Stonar Bank to the east. While some of the distant views to the north survive relatively intact, the eastern view is dominated by the development of the Pfizer site in the near and mid distance, impacting on the setting of the site.

The Wantsum Channel

3.40 Although completely silted up the Wantsum Channel is discernable today as a considerable historic landscape feature. The pattern of drainage channels and earthworks enclosing prime arable farmland, threaded through by the River Stour distinguish the area of the former channel. Only at its eastern end, has development degraded the historic landscape.

3.41 The sediments of the Wantsum Channel itself survive up to 12 m. in depth and are likely to contain important evidence of the early geomorphology of the Channel, its landform and the environmental history of the area during Roman times. Important information on the form of the navigation route, the sea approach to the Roman port and the use of the Wantsum as a Roman anchorage are likely to be present. The evolution of the Stonar shingle bank will be key in understanding the nature of the approach to Richborough and evidence contained within the bank concerning the chronology of its formation is important. The potential for wrecks within the former channel is good; a possible wreck on the eastern side of Stonar Bank was reported during historic shingle excavations.

Figure 13 The Wantsum Channel

Dover

3.42 Dover contains an impressive range of Roman remains. Much of the resource survives as buried archaeology, in places at up to six metres deep beneath the present surface level. The Roman archaeology of the town was the subject of a campaign of major rescue excavations in the 1970s led by Brian Philp of the Kent Archaeological Rescue Unit. Discoveries during this campaign included the discovery of the *Classis Britannica* fort, the Saxon Shore Fort, the Bath House and the 'Painted House'. Other investigations in the town centre have included the discovery of the wharfs and harbour mole.

3.43 The evidence for the **earliest settlement** by the Romans on the western bank of the Dour and accompanying harbour is entirely contained within the archaeological record of the town and may have been severely affected by the subsequent development of the Roman and later town. Excavated evidence is confined to a number of shallow ditches dated to the second half of the first century.

3.44 The first **fort of the *Classis Britannica*** was partially excavated by Philp in the 1970s in advance of the construction of York Street and adjacent properties. He found the foundations of the wall of the fort, an

external building and three barrack blocks. The second, and more substantial, fort of the ***Classis Britannica*** was found to encompass the former which it replaced. About two thirds of the fort have been excavated and include the defensive walls and a flanking ditch, gatehouses, granaries, metalled roads, an aqueduct, drainage and a latrine. The remains of the *Classis Britannica* fort survive as buried archaeological remains on either side of York Street. The remains include a section that has been encased by concrete to ensure its preservation in the basement of Albany House. Only part of the fort, an area at Albany Place, is designated as a Scheduled Monument.

3.45 Archaeological investigation has established that the **extramural settlement** covered an area of around five hectares. It spreads northwards to at least as far as St Mary's Church where a substantial building with hypocaust was identified in the eighteenth century. To the south the settlement extended at least as far as Adrian Street where another building with plastered walls and opus signinum floor has been recorded.

3.46 Within the extramural settlement, excavations on the **Painted House** site identified a sequence of structures that demonstrated that extramural building began at the time of the first fort and evolved into ever more complex and sophisticated arrangements. By AD 200 an east west range of painted rooms with underfloor and wall heating was built. Interpreted as a *mansio* (hotel or inn for travellers) this building was in part left preserved beneath the earthworks of a later fort and the surviving remains are consequently of exceptional quality. The remains have subsequently been saved from development works and are on display within a covered museum building built and run by the team that excavated the site. The 'Painted House' is partially designated a Scheduled Monument.

3.47 The remains of the large military **bathhouse** found to the north of the fort included hot, cold and tepid rooms, a furnace, plunge baths, tanks and drains. Full details of the bath house excavations remain to be published. The site remains as a buried asset and is a Scheduled Monument.

3.48 The remains of the **Roman harbour** lie buried in places at considerable depth beneath the present town. Evidence of the harbour includes the remains of the successive wharves built as the estuary narrowed and the remains of wharfside installations, buildings and activities are all likely to survive. Within the centre of the harbour the substantial timber mole (sea wall), found during the construction of a gas-holder in 1855 on the site of the recently demolished bus depot, survives at more than six metres below the present ground level. Within the harbour and estuary silts evidence of the maritime trade and vessels that used the harbour is likely to be present including potential hulks and wrecks. The silts themselves may contain important evidence on the processes (natural and human) that influenced the use and form of the harbour.

3.49 Overlooking the harbour on the western and eastern heights flanking the harbour were two *pharoi* (lighthouses). The two *pharoi* are the only such examples known with any certainty in Roman Britain. There is some speculation that the towers on the amphitheatre site at Richborough may have had a similar purpose. The two *pharoi* were designed to overlook the harbour and it seems likely, though has not been confirmed that they were contemporary and intended to guide ships between them. Their exact date of construction has not been established but it seems likely they would have been associated with the *Classis Britannica* presence at Dover.

3.50 The **Western *Pharos*** has been demolished to its foundations, which survive and are visible within the walls of the officer's quarters of the Drop Redoubt at the Western Heights. A displaced piece of the foundations has been used to mark the site and is placed on top of the quarters. This lump of masonry has since its discovery in the seventeenth century been known as the 'Brendenstone' or 'The Devil's Drop of Mortar' from which the Drop Redoubt takes its name.

3.51 The **Eastern *Pharos*** still stands to an impressive height today within the grounds of Dover Castle. At 13 m. tall the ashlar built pharos at Dover is the tallest surviving Roman building in this country. Externally the building is octagonal in section although square internally and was built in stepped stages to an estimated height of around 25 m. originally. A fire platform or chamber would have provided the light on the top of the *pharos* though this has not survived. The tower was later adapted as a bell tower for the nearby church of St Mary in Castro. Both *pharoi* are protected as elements of Scheduled Monuments and the Eastern *Pharos* additionally as a Listed Building.

3.52 The **Saxon Shore Fort**, constructed around the middle of the third century covered an area of around 1.5 hectares encompassing the north eastern corner of the former *Classis Britannica* fort, reclaimed land to the east of the original waterfront and

Figure 14 *Remains of the Western Pharos in the walls of the Drop Redoubt on Dover Western Heights. © Explore Kent*

Figure 15 *Eastern Pharos and St Mary Castro*

areas of the extramural settlement including the military baths and the 'Painted House'. The new fort was trapezoidal in shape; while the western and southern defences have been largely proven by excavation the north and east sides remain conjectural though their alignment is suggested by large pieces of masonry found during past building works.

3.53 The walls of the fort are some 2.5 m. thick and buried portions survive to a height of up to 3 m. in places. The defences had massive bastions placed at the corners of the fort and at intervals along each wall. A rampart bank of rubble and clay was heaped against the internal face of the defensive wall and a 12 m. wide, 3 m. deep ditch lay outside the walls. The internal part of the fort included a substantial terrace to create a level surface for the structures within the fort. These included timber built barracks and huts, metalled internal roads, postern gate and footbridge and the earlier bathhouse. Today much of the fort remains buried beneath York Street and numerous properties to east. Only one small section of the southern wall of the Shore Fort is specifically protected as a Scheduled Monument (though three other Scheduled Monuments also lie within the fort – the 'Painted House', the bathhouse and the priory of St Martin). A bastion can be seen, though with limited access, in the grounds of the Dover Discovery Centre. Exposed Roman archaeological deposits are also visible within the Discovery Centre building and within the Roman 'Painted House'.

Communications

3.54 Tracing the **Roman road network** in the District can be a challenge. In places the major roads can be clearly seen running straight across the landscape and being followed by roads today. The clearest example of this being the road running northwards from Dover through the countryside towards Richborough. Other roads are less clear and have been traced in places through cropmark evidence on aerial photographs, through the presence of historic landscape features such as boundaries, tracks and hedges which delineate the route and through careful examination of the distribution of the Roman and Saxon archaeological evidence and in particular the location of cemeteries which often flanked roads.

3.55 The **Richborough to Canterbury** Roman road has been difficult to trace. The start of the Road at Richborough can be clearly seen and is picked up in part by Castle Road. Heading west off Richborough island, probably via a causeway or ford, the road is considered to turn south west towards Cooper Street and then directly towards Canterbury via Cop Street, Hoaden and Walmestone. The straight road, part of the A257 between Shatterling and Wingham is erroneously referred to as the Roman road.

3.56 The **Dover to Richborough** Roman road can be clearly traced from north of Dover to as far north as Woodnesborough. The road which runs straight over this part of its route is largely followed by the local road network though some parts at Betteshanger, Great Napchester Farm and Buckland are not. The route through Dover from the Roman centre is not fully evidenced. At Woodnesbrough the road is considered to split with a north-east branch to Sandwich and a north-west branch to Ash and on to meet the Richborough to Canterbury road on the western edge of the District. The full road system in this area needs a detailed study to establish the routes to Richborough but routes from Ash to Cooper Street and another through **Each End** Ash are considered as likely to link to the Roman port. The Each End route has been partially confirmed through excavation works on the Ash bypass, which found a metalled road heading in the direction of Richborough. The road likely took advantage of a natural

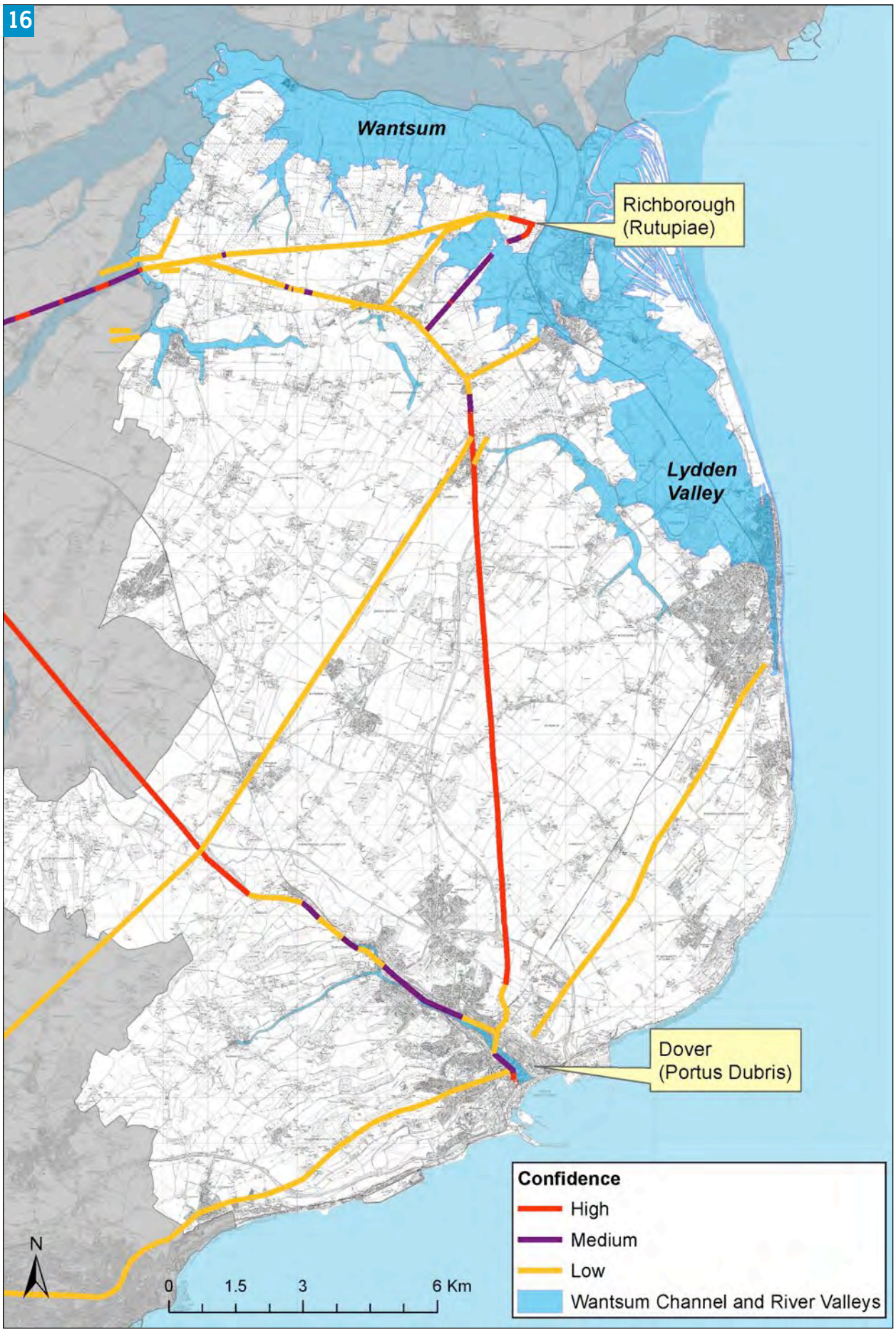


Figure 16 *Roman roads classified by the certainty of their course*

promontory into the marshland and a series of raised islands to link with a road seen to run south westward from the fort and which has recently been partially excavated during pipeline works on the island at Richborough. The complexity of the road network in the area is probably a reflection of the complexity of the Roman landscape at the mouth of the Wantsum Channel, the marginal nature of the land and the natural processes at work in the area. As shingle rendered areas of the channel un-navigable the consequent impact on any adjacent small wharfs and settlements that were served would possibly have impacted on the road network. It is also possible that areas of the approach roads to Richborough that lie on the low-lying marginal areas would have been less usable during winter months. It is therefore likely that the Roman road network in the north of the District altered and evolved through the Roman period.

3.57 The date of the Richborough to Dover road is not known and the route isn't referred to in the second century Antonine Itinerary although that would be unlikely as the Itinerary dealt with routes into the province from the coastal ports. The route would certainly have been in place by the time of the construction of the Shore Forts and formed an important link between the two ports. A further important link in that defensive network is a possible road that linked **Richborough** with the port and fort at **Lympne (*PORTVS LEMANIS*)**. Evidence in the form of modern roads and tracks, field boundaries, cropmarks and the location of Saxon burials indicate a road that branched from the Dover to Richborough road southward along Thornton Lane and through the farmed landscape to meet the Dover to Canterbury road close to Lydden Hill. The route south westward from there is more speculative though investigations at Saltwood on the Channel Tunnel rail link recorded a road running in this direction and thought to be part of the link with Lympne.

3.58 The main Roman road from **Dover to Canterbury**, mentioned in the Antonine Itinerary is thought to have developed after that from Richborough to Canterbury though it quickly became the prime route as Dover flourished and was later that referred to as Watling Street. The pre-eminence of this route over the others may be illustrated by the street layout of Roman Canterbury, which used the Dover road as its axis rather than that of the Richborough road, though there may have been other factors that influenced this.

3.59 The road network in Dover has not been evidenced by excavation and the route the road network took from the fort in the lower Dour Valley has yet to be fully established. The road would have had to cross the Dour, possibly around the junction of the High Street and London Road, certainly to meet the branch with the north road to Richborough. Whether the road followed the north bank of the Dour or continued along the south to cross around Buckland is still a matter of conjecture and Roman burial evidence has been found on both banks though that does not in itself confirm the presence of the main road. From Buckland the road follows the northern side of the Dour valley to the Lydden Valley where it runs north-west on a more visible route towards Canterbury.

3.60 A further road running from the port at **Dover towards Lympne** is thought to have headed south west along the Folkestone Road to meet and follow the dry valley at Stepping Down and on to Church Hougham and Capel.

3.61 As well as the principle roads linking the major ports, forts and Canterbury a **network of minor roads and tracks** would have linked the various areas of settlement, farmsteads and the coast. Much of this

network is likely to have retained the complex of tracks that served the pre-Roman communities and in most cases these routes were influenced by the prevailing north-west to south east topography of the chalk downland and the presence of the marginal lands on the fringes of the Wantsum Channel and the Lydden Valley. A route of some significance is suggested to run between **Walmer, Deal and Eastry** by the distribution of burial sites on the Mill Hill ridge and at Northbourne. A further significant route has been conjectured to southward from around **Walmestone towards Watling Street** and is followed in part by both the District boundary and Adisham Road.

3.62 In summary the Roman network in the District provides a complex set of assets which include elements that have been fossilised into the present road network and settlement pattern of the District, elements which survive as visible traces through features in the rural landscape and elements which only survive archaeologically and which require further investigation to confirm their routes and chronology.

The countryside

3.63 The majority of the rural landscape of the District contains traces of the farming and settlement of the area by the Romano-British inhabitants. These are almost entirely contained within the buried archaeological resources of the District and include areas of settlement, many of which are adjoining the major roads, farmsteads, enclosures and fields. In many cases the continuation of sites from the Iron Age into the Roman period is clearly in evidence. The Historic Environment Record illustrates particularly high numbers of sites and finds of Roman date on the chalk downlands in the centre of the District. While there may have been some concentration of activity in the area between the two major ports at Richborough and Dover, the apparent sparcity of Roman remains in the west and particularly the area west of Dover is likely to more reflect the lack of survey and investigation than a real absence. The pressure on the Roman landscape can be seen through the apparent inning of the Lydden Sea Valley and the remaining earthwork of the **Lydden Wall** as well as the settlement of what must have been a relatively exposed location on the Deal shingle spit at **Dickson's Corner** and the exploitation of marginal land on the so-called '400 foot plateau' above Dover.

3.64 The influence of the road network on the establishment of small settlements is clear in the archaeological record through the distribution maps of the assets. Clusters of activity at **Walmestone**, **Hillcross Farm**, **Maydensole**, **Napchester**, **Eythorne**, **Each End**, **Mill Hill** and **Ringwould** are all candidates for roadside settlements though several, for example Maydensole are likely to have been settlements established in the Iron Age. Other settlements that are not on the major road network are likely to be found at **Preston**, **Elmstone** and that at **Worth** which may have developed from a major Iron Age settlement and focused on the known temple site.

3.65 Within the rural settlement evidence the archaeological remains may include buildings of a particular type of sunken featured building, seen only in east Kent and mainly on Thanet. While most of the Roman rural buildings would have been timber built, some more substantial buildings may have been found in the settlements and farmsteads. Recent investigations at **Honeywood Road, Whitfield** identified a substantial farmstead building with flint foundations. The archaeological resource in the rural settlements is likely to include important information on how the arrival of the Romans, the establishment of the ports and the eventual end of Roman administration

affected the east Kent populations who lived in an area that was prominent in the story of Roman Britain.

3.66 While villa sites are sparse in East Kent, five known or suspected villas have been found in the District, including two in the last few years which illustrates the potential for further findings. The villas can be found at Wingham, Sandwich, Sholden, Walmer and Ash.

3.67 The **Wingham Roman Villa**, which is protected as a Scheduled Monument, was partially excavated in 1881-2 and re-excavated in the 1960s. The villa was of some pretension, the excavations uncovered a bathhouse that although was dated by the excavators to the second century included a mosaic which appears to be of first century date with close parallels in *Gallia Belgica*. The closeness to Canterbury suggests that the villa may have belonged to one of the early members of the elite of the *civitas*.

3.68 The **Sandwich Roman Villa** was excavated between 1978 and 1980 to the south west of Sandwich in advance of the realignment of the Sandwich to Woodnesborough Road, part of the construction works for the new Sandwich Bypass. The villa was found on a slight promontory overlooking the Wantsum Channel to the north, and would have been approached by a branch of the Roman road from Woodnesborough to the south west. The villa building was entirely excavated in two phases of excavation. The flint pebble foundations were all that remained of a 27 m. long building, comprising of a long central room with two end wings and a corridor on its north east side. No other buildings were found in the vicinity of the villa. The villa was of modest proportions and dating though tentative suggests that it was in use in the late first to second Centuries and out of use by the third Century. The villa building was largely removed by the construction of the new road, though remains may survive adjacent and the potential for contemporary remains in the villa surroundings must be high though nothing has been identified to date.

3.69 The existence of a Roman villa close to **Hull Place, Sholden** was confirmed in the 1920s when a parch mark was noticed and investigated but not reported. Between 2007 and 2009 the Dover Archaeological Group investigated the site and found successive buildings sealing evidence of an Iron Age farmstead. The building is sited on the southern end of the former Lydden Sea Valley, which was probably being reclaimed for grazing pasture at the time that the villa was occupied and the owner of the site, who was clearly of some wealth and status may, have been responsible for the construction of the Lydden Wall.

3.70 The Dover Archaeological Group's investigations confirmed that two successive substantial villa buildings had been constructed on the site. The earliest building, built in the early second century originally comprised of a single room but was substantially extended to include an apsidal room and hypocaust. Finds of painted wall plaster demonstrated the wealth of the site. No earlier than the latter part of the second century the building was demolished and a new, much larger building constructed. The complete ground plan of the building has been revealed through excavation and it was found to have 17 rooms, one of which had a hypocaust. Finds of painted wall plaster and window glass indicated a building of some status though without evidence of luxury features such as tessellated floors it may not have been of the grandest style.

3.71 The preservation of the buildings was found to be poor with nothing structural surviving above the flint foundations, no floors and evidence of robbing the later building in the twelfth to fourteenth centuries possibly for materials to be used in the

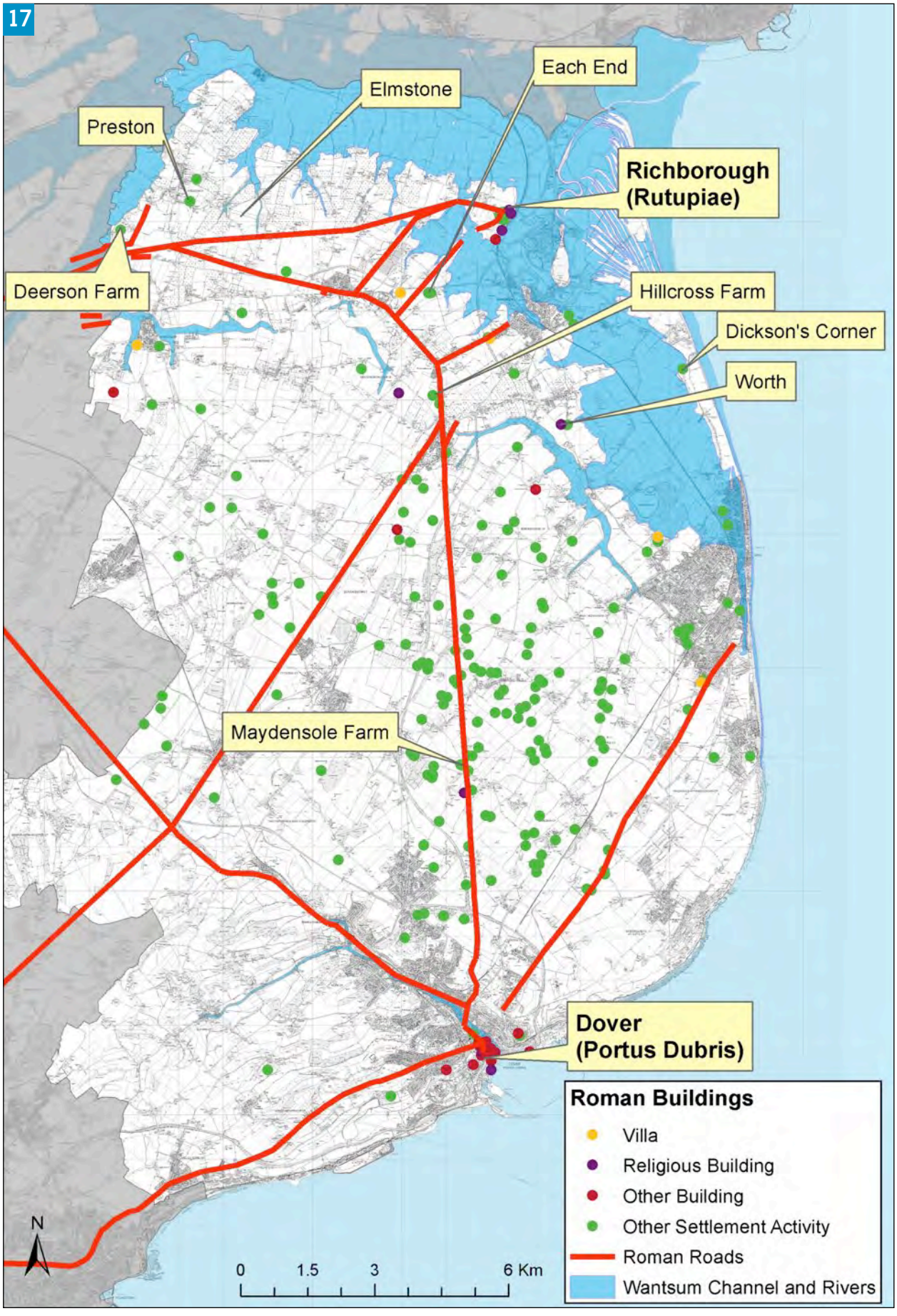


Figure 17 *Rural Settlement and known buildings*

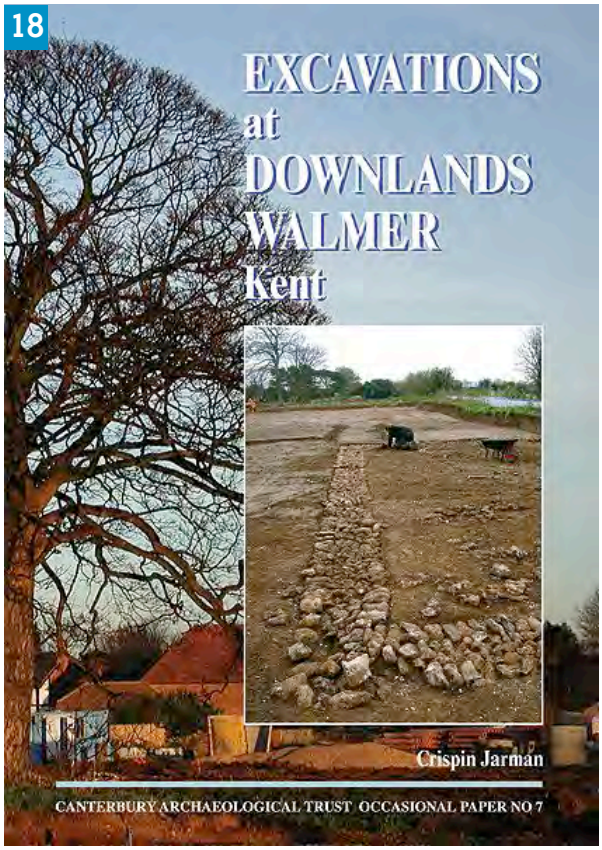


Figure 18 Downlands, Walmer - Publication Cover

construction of the parish church or the manor chapel at Cottington. The building presently lies in a grassed field close to Hull Place which is used as a camping ground for touring caravans. Nothing has yet been found associated with the wider villa estate but there is good potential for additional buildings in the area around Hull Place and given the high water table in the area a high potential for waterlogged organic remains.

3.72 A fourth villa in the District is implied from the discovery of a large aisled barn at **Downlands, Walmer.** Dating to the third century the building is not absolute proof of a villa site but the presence of additional buildings seen on aerial photographs of the fields to the north would suggest that there is a villa in the area.

3.73 The final potential villa has recently been observed on aerial photographs taken of agricultural land just to the west of the Each End settlement site excavated in **Ash**. The aerial photographs show a substantial rectangular building.

3.74 Assets connected with Roman farming practices and industries in the District are likely to survive in archaeological and palaeo-environmental remains. Archaeological fieldwork at Mill Cottage near Nonington has demonstrated the potential contribution that the remains of crop processing can have in helping to understand the rural economy of the District and its relationship to the major ports.

3.75 Evidence for fishing, oyster farming and processing and activities such as salt working are likely to be found on the coastal edge and the marginal lands of the former Wantsum Channel and the Lydden Valley, potentially in good states of preservation due to waterlogged conditions.

Burial and worship

3.76 Roman burial sites are widespread across the District. Examination of their distribution shows a strong correlation between the burial sites and the road network. Although no major cemetery on the scale found occasionally elsewhere in Kent has been excavated in the District, moderate sized cemeteries have been found on the roads out of Dover, at Each End, Walmer, Worth, Northbourne, Preston and Waldeshare. Many of the burial sites in the District are relatively small and may represent small family cemeteries serving the inhabitants of the scattered farmsteads. The Mill Hill area has a good grouping of smaller sites suggesting the presence of a route along the ridge.

3.77 Both inhumation burial and cremation burial are spread across the District. While some burial sites are confined to only one rite, several have evidence of both practices.

3.78 Known sites for ritual and worship are limited in the District though it is likely that more remains to be discovered. The most

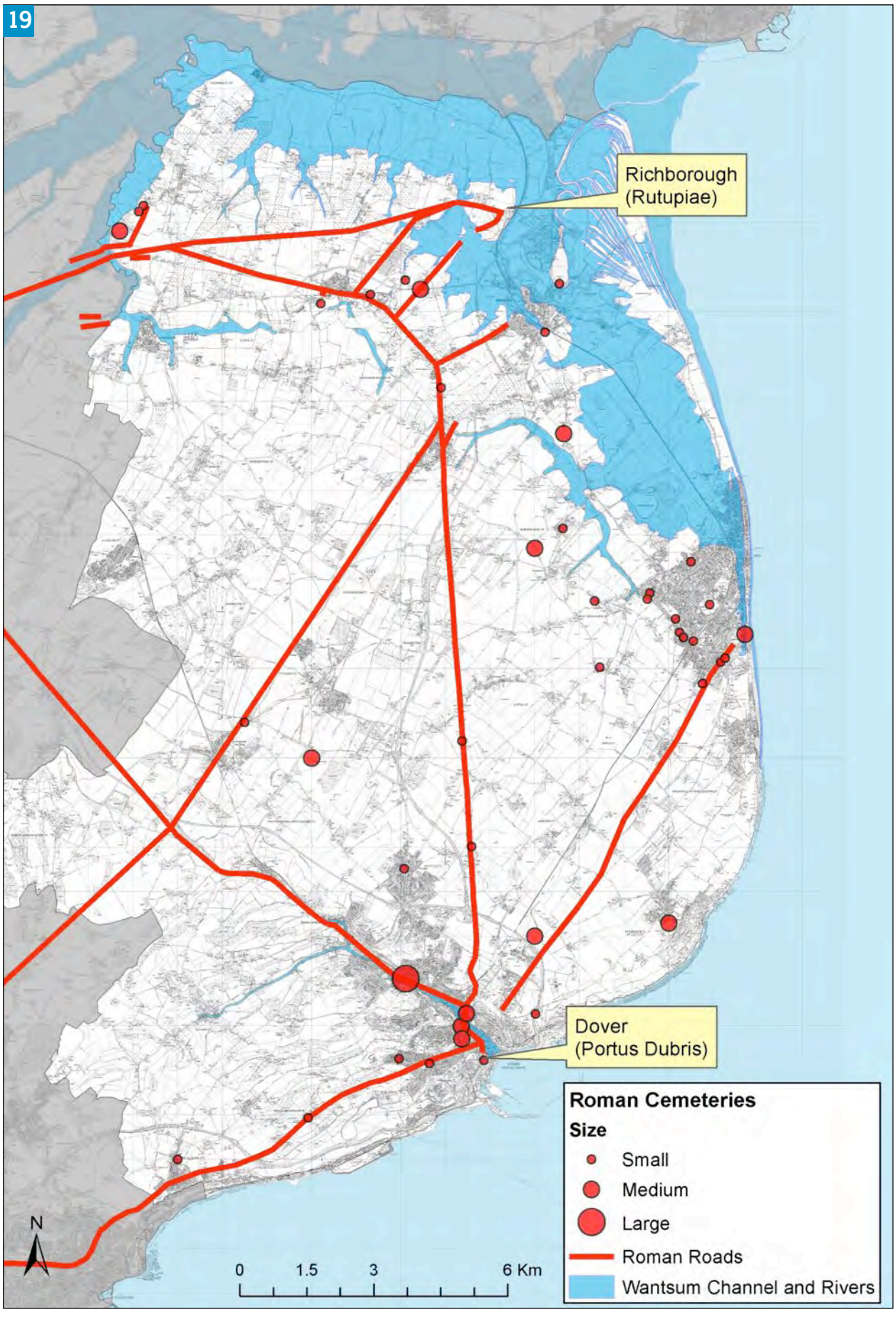


Figure 19 *Known Roman cemeteries*

significant sites are the pair of temples excavated by Bushe Foxe at Richborough and the temple at Worth.

3.79 The **two temples at Richborough** lie around 350 m. south of the Roman Shore Fort. They were found to be of the normal Romano-Celtic type consisting of a central *cella* surrounded by a rectangular ambulatory. Both temples, sited atop the chalk cliff overlooking the Wantsum probably faced east south east towards the sea approach to the port. They both had walls between three and four feet (around one metre) thick, one had an ambulatory of 40 feet by 39 feet (about 12 metres) surrounding a 19.5 feet (around six metres) square *cella* while the second was slightly bigger with a 23.5 feet (approximately seven metres) square *cella* surrounded by a 46 by 43 feet (14 by 13 metre) ambulatory. Dating for the temples is tentative but they are thought to have been constructed at the start of the fourth century. A third building within the Shore Fort associated with Venus statuary may have also been a temple. The temples lie buried in the approach to the visitor site at Richborough and fall within the Richborough Scheduled Monument.

3.80 The **Roman temple at Worth** was discovered and excavated in 1925. Found to be constructed on the site of a major Iron Age settlement and possibly an Iron Age shrine, the temple was bigger than those at Richborough with a *cella* about 28 feet (eight and a half metres) square and an ambulatory of around 52 feet (about 16 metres) square externally. The temple had two phases of construction, the original having been destroyed and rebuilt with sculpture and old tiles in the floor. The dating of the temples is unclear but probably lasted into the fourth century. The exact location of the temple is not clear but it is sited on a high ridge of land overlooking the Lydden Sea Valley and the southern approach to the mouth of the Wantsum Channel. Whether it would have been visible to Roman mariners approaching Richborough is not clear. The temple lies buried within agricultural land to the south of Worth and is afforded protection as a Scheduled Monument.

3.81 Other evidence of Roman ritual is likely to be found amongst the remains of the two ports, the rural settlements and the farmsteads of the District. The **ritual shaft excavated at Hammill** between 1946 and 1948 was discovered during brick earth quarrying. The shaft was found to be 22 m. deep with a large Belgic-Romano pot at the base. At the top of the shaft was a circular antechamber 2.6 m. wide over a 1 m. diameter shaft. The shaft opened out to 2 m. over a small section, possibly due to a fall, and then again narrowed to 1 m. but of square cross section. The lower part of the shaft was lined by clay. A nearby pit contained a pipe clay figurine of Venus. The precise nature and function of the shaft, which has now been destroyed by quarrying, can not be known however continental parallels suggest a ritual use. A date of the second or third centuries has been suggested from the pottery evidence.

3.82 A **ritual shaft at Mill Hill** was excavated by the Dover Archaeological Group in the 1980s. The shaft, which is described as 'boot shaped' was some two metres deep and cut into the natural chalk of the Mill Hill ridge. The shaft contained a side chamber some one and a half metres below the ground surface. This chamber was oval in plan with a flat roof and floor and slightly concave walls. High in the north-west wall of the chamber was niche, measuring some 0.25 m. by 0.26 m. by 0.22 m. and rectangular in shape. Within the chamber a complete carved chalk figurine was found. The figurine, known as the Deal Man is now in Dover Museum. The figurine is 'Celtic' in style. The exact date of the shaft is unknown, but it was backfilled with chalk and loam deposits that contained

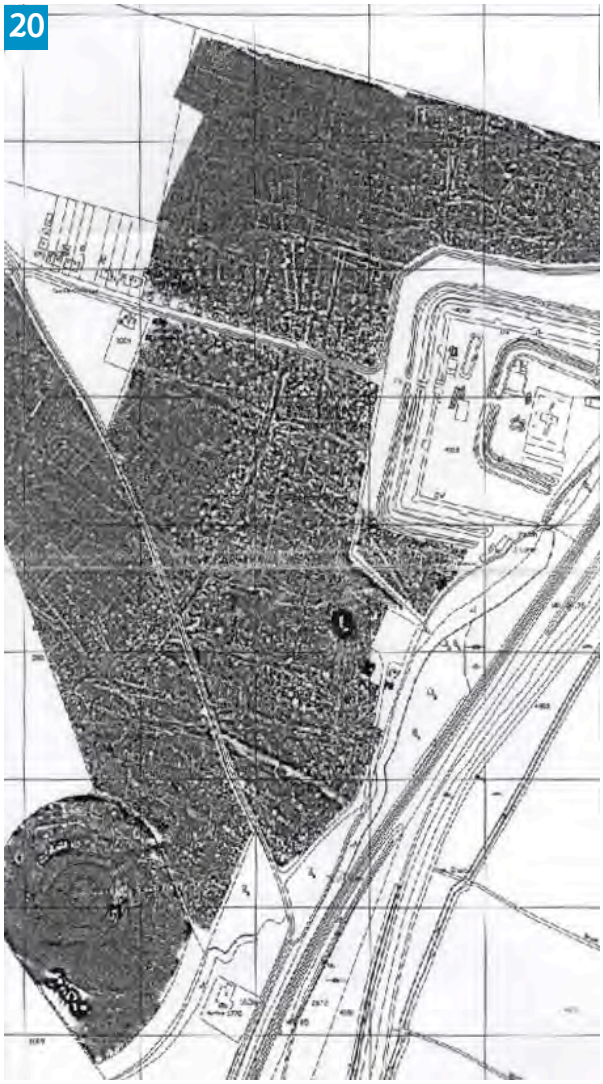
much Roman debris, including a considerable quantity of pottery of late first century and early second century AD date. Other shafts, described as 'ritual' were identified in the grounds of Dover Castle during the installation of two 10-inch guns at Shot Yard Battery. The shafts are described as being four feet (1.2 m.) square and were between 16 and 20 feet (4.8 – 6.1 m.) in depth. The shafts contained a range of deposits, including shells, animal bone and Romano-British pottery.

Statement of Significance

3.83 From beginning to end, the area that is now Dover District played a leading role in the period of Roman occupation of Britain and was the location for the first recorded event in British history. The point of arrival of the Roman Empire into Britain, first through Caesar and then Claudius, the District continued as the principle point of entry into the new province through the great ports of Richborough and Dover. As well as its key role in the invasion of Britain by the Romans, the District played a significant part in the defence of the province providing bases for the Channel naval fleet the *Classis Britannica* and later as an important part of the defence of the Saxon Shore. Finally the area and in particular Richborough became the last bastion of Roman administration in the province. The Roman assets in the District, which as well as the key assets at Richborough and Dover include a rich archaeological resource in the rural hinterland and the important historic landscapes of the Wantsum Channel and Lydden Valley, are of **outstanding significance**.

Evidential Value

3.84 The Roman assets in Dover District have outstanding evidential value covering a wide range of research priorities at national, regional and local levels. A selection of areas



of potential research are discussed below:

3.85 Further archaeological investigation and study has considerable potential to provide evidence that will provide a much greater understanding of nationally important events of such significance as the expeditions by Caesar, the Claudian invasion and the departure of Roman administration.

3.86 Important evidence for the form, operation and development of the great ports of entry at Richborough and Dover, the relationship of these ports to the surrounding landscape and their place in the trading and travel links between the province and the wider Empire is likely to be present in the archaeological resource.

Figure 20 Richborough Geophysics Plot. © English Heritage

3.87 The fortifications at Dover and Richborough could potentially provide further evidence on the organisation of the Roman military in the province and the arrangements for its defence. In addition the role and influence of the *Classis Britannica* may be evident in the wider archaeology of the District.

3.88 The area was often the first point of contact with the wider Roman Empire and the recipient of new cultures, ideas and trade. The effect of this contact, the establishment of a Roman presence and administration is likely to have had a significant and early impact on the native British population. The archaeology of the District is likely to have a wealth of evidence that demonstrates transition from Iron Age to Roman Britain.

3.89 Present evidence suggests changing economic circumstances during the Roman period with early growth and a third and fourth century decline. Archaeological investigation may provide important information on how the economic circumstances changed at both local and national levels, both within the major ports and the wider rural settlement. A better understanding of the farming practices, land management and industrial activities taking place in the area can be gained from further archaeological investigation.

3.90 Investigation of the harbours, the former Wantsum Sea Channel, the Lydden Sea Valley and the wrecks off the coast can provide important information on Roman navigation and maritime practices.

Historical Illustrative Value

3.91 The remains at Richborough and Dover illustrate the development of two of the most important ports of entry into the new Roman province. The way in which the arrival of Roman administration affected the indigenous population, the economic and cultural effects and the way in which the development of a new network of major roads impacted on the pre-existing settlement pattern illustrates the transition of

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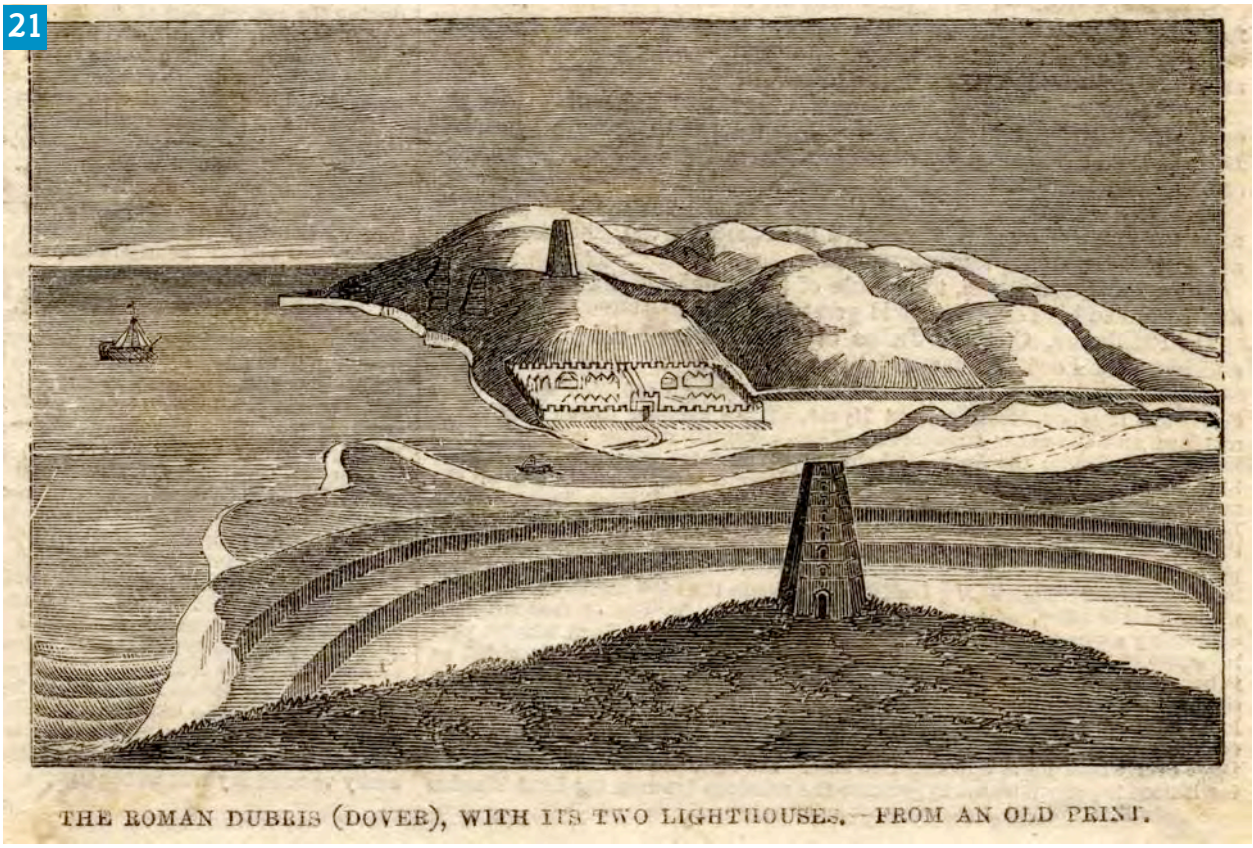

Figure 21 *An impression of the Roman port of Dubris (Dover) with its two lighthouses. The print is adapted from one originally drawn by the noted 18th century antiquarian William Stukeley. © Dover Museum (d05960)*

Iron Age to Roman Britain. The forts of the *Classis Britannica*, the early forts at Richborough and those of the Saxon Shore provide a good illustration of the way in which the Roman military presence secured the vital channel crossing from the province to the mainland and later protected the eastern coast of the province from raiders across the North Sea. The decline of Roman Britain and the final military abandonment can be illustrated in the fourth and fifth century archaeology, in particular that at Richborough.

Historical Associative Value

3.92 A number of the great historical events and figures of Roman Britain are associated with the District. The expeditionary forces of Julius Caesar and his legions landed around Deal in 55 and 54 BC. Caesar's landing is the first event in British history for which there is a contemporary written account. Claudius' Roman invasion force led by his general Aulus Plautius and including the future emperor Vespasian landed at Richborough in AD 43. Claudius himself landed at Richborough later in the same campaign. The emperor Domitian possibly ordered the construction of the Great Arch at Richborough to celebrate the completion of the Roman conquest. Richborough is associated with the final removal of the Roman administration and military from Britain in AD 407.

Aesthetic Value

3.93 Although much of the Roman resource lies buried across the District without any present aesthetic value, the remaining visible monuments have a strong aesthetic quality. The Pharos on the eastern heights of Dover stands as a distinct landmark on the skyline visible from the town and the sea, adding to the spectacular backdrop that the heights, the White Cliffs, Dover Castle and St Mary Castro provide to the town of Dover. The remains of the Shore Fort at Richborough, with their walls of flint with attractive bands of red tiles provide an aesthetically pleasing but powerful monument, standing proud in the surrounding agricultural land. Views of the monument are best from the surrounding agricultural land to the south, west and north, though the ruins are visible on the skyline from the low lying land of the former Wantsum Channel to the east.

3.94 The historic form of the coastline at the time of the Romans can be appreciated through the low lying lands of the former Wantsum Channel and Lydden Valley. These areas visible from the key sites at Richborough and Worth as a network of drainage ditches and embankments provide a rich historic and natural landscape to visit, explore and appreciate.

3.95 The District is fortunate in having one of the best surviving examples of Roman mural art in Western Europe available to visitors in Dover. The elaborately decorated plaster walls of the 'Painted House' which includes a grand three dimensional scheme of painted panels and framing with Bacchic

Figure 22 *Ditches and strong standing walls at Richborough castle*

Figure 23 *The Pharos and St Mary in the Castro - a prominent landmark on Dover's skyline. © Dover Museum (d00776)*

motifs is an outstanding demonstration of Roman artistic qualities. Other examples of Roman artistic quality are less visible but survive for example in the buried mosaic at Wingham Villa or the statuary in the floor of the Worth Temple. Individual finds of statuary and figurative art are included in the District's archaeological assemblages and the remains of the marble façade of the quadrifons arch at Richborough can be reconstructed (on paper) to demonstrate that it was a monument of great dominance and visual effect.

Communal Value

3.96 The role of the District in some of the most significant events in the history of Roman Britain cannot be underplayed. The association with widely recognised historic figures such as Julius Caesar and the occasion of the Claudian invasion provide an opportunity to connect the community with their Roman history and the District's Roman assets. Key visitor sites at Richborough and Dover are important for tourism and for developing a sense of place at the two great historic ports of entry.

Vulnerabilities

3.97 The buried archaeology in Dover town centre is vulnerable to redevelopment and construction works. Although principle features such as the 'Painted House', the bath house, parts of the *Classis Britannica* and Saxon Shore Forts and the two *pharoi* are protected as Scheduled Monuments, much of the resource is not. While some of the features of the Roman town and especially the harbour are deeply buried below metres of alluvium and made ground, other areas are less covered and more vulnerable. The complex buried archaeology of the centre of

Figure 24 Richborough Castle fallen eastern wall recovered from overgrowth alongside the railway track

Dover suffers from a lack of a coherent model of what survives, where and at what potential depth and a number of important investigations remain to be published. The result is that development comes forward with insufficient appreciation of the archaeological issues that are faced and the significance of the remains that are potentially present.

3.98 The buried archaeology at Richborough mainly lies within agricultural land and is vulnerable to ploughing. A full assessment is needed of the extent of erosion of the remains outside the main visitor site but potentially significant damage could be occurring to areas of the former port town with potential eventual loss of key buried archaeological remains.

3.99 The standing Roman remains in the District are exposed to the elements and will require ongoing monitoring and conservation to maintain their present condition. None are listed on English Heritage's *Heritage at Risk Register* at present. The remains of the 'Painted House' lie within a purpose built building and are therefore protected from the weather. The wall plaster however is particularly vulnerable to climatic conditions and conditions need to be carefully maintained within the building to preserve this extremely important example of Roman art for the future.

3.100 The setting of the Richborough Shore Fort is particularly vulnerable to development of a scale that impacts on views out over the low-lying land to the north, south and in particular the east. The eastern view outward is already significantly affected by the development of the Pfizer site. With the proposed designation of the former Pfizer site as the new Discovery Park Enterprise Zone, care needs to be taken that the scale and design of any future development in the west of the Zone does not add to the impact on the setting of Richborough. Similarly the development of brownfield land along the A256 corridor needs to be carefully considered to avoid additional impact on the nationally important site.

3.101 Across the wider District, the Roman resource lies mainly in farmed land and therefore vulnerable to ploughing. A number of the sites intended for new residential and other development within the District include potential Roman remains which may be affected by the development works. In some cases the route of a historic Roman road may be crossed and the alignment potentially lost as a landscape feature. Roman sites are particularly vulnerable to illicit metal detecting.

Opportunities

3.102 The District's Roman assets as a whole have the potential to illustrate a coherent and powerful story of the invasion of Britain by the Romans, access to the new province and its eventual demise. There is potential benefit in stronger links between the various key assets at Richborough, Dover, Deal and the rural landscape to better explain the story and provide a draw for visitors. Significant new discoveries should be highlighted and explained in terms of the overall story.

3.103 The site at Richborough is a significant heritage visitor attraction in the District and a key site for English Heritage. The present offering is concentrated on the

Figure 25 Excavations at Richborough Castle. © Dover Museum (d80625)

main visitor site around the Saxon Shore Fort though there is some link with access to the amphitheatre and the nearby Saxon Shore Way. There is potential for improved connection between the visitor site, the amphitheatre and the Wantsum and improved interpretation outside the main site. The work on the Richborough *vicus* in the last decade has demonstrated the richness of the resource in the area and further work is needed to be able to explain the relationship of the town to the anchorage and sea-channel and the date, form and role of the amphitheatre.

3.104 The environs of Richborough provides a considerable opportunity for the development of a community archaeology project that engages a wide audience within the District and helps us to understand the development and working of the great port and its influence on the lands around it.

3.105 The development of an Urban Archaeological Database for Dover would provide a better understanding of the effects of development proposals on the Roman archaeology of the town and help in the future designation, protection and conservation of key assets. Mapping and analysis of aerial photographs will enhance our understanding of the Roman rural landscape.

3.106 Where Roman road corridors are crossed by proposed new development, attention should be given in design to ensure that the road corridor survives as far as possible as a distinctive feature.

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Figure 26 Early Image of the Richborough Castle visitor site. © Dover Museum (d80637)

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Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Wantsum Sea Channel	Historic Landscape visible as reclaimed lands Wrecks Geoarchaeological evidence	None	Open space, private farm land, public footpath network	Incorporated in a number of promoted walks and trails; some interpretation
Caesar's Expeditions	Archaeology	None	Unknown	Commemorative plaque on Walmer Green
Claudian Beach Head at Richborough	Earthwork and Buried Archaeology	Scheduled Monument	Managed visitor attraction	English Heritage Site
RVTVPIAE - Richborough Port and *Vicus*	Buried Archaeology	Scheduled Monument (mostly)	Majority in private farmland, part in managed visitor attraction	English Heritage Site
Richborough Amphitheatre	Earthwork & Buried Archaeology	Scheduled Monument	Accessible open space linked to a managed visitor attraction.	English Heritage Site
The 'Great Monument' at Richborough	Ruinous Structure	Scheduled Monument	Managed visitor attraction	English Heritage Site
Richborough 1st C supply base & *Mansio*	Buried Archaeology Ruinous Structures	Scheduled Monument	Managed visitor attraction	English Heritage Site
Richborough 3rd century fortification	Earthwork and Buried Archaeology	Scheduled Monument	Managed visitor attraction	English Heritage Site
Richborough Shore Fort	Buried Archaeology Ruinous Structures	Scheduled Monument	Managed visitor attraction	English Heritage Site
PORTUS DVBRIS – Dover Port and *Vicus*	Buried Archaeology	Part Scheduled Monument	Urban	Dover Museum
Fort of *Classis Britannica*	Buried Archaeology	Part Scheduled Monument	Urban – mainly private property	Dover Museum
Roman Painted House	Historic Building - Ruinous	Scheduled Monument	Managed visitor attraction	Painted House Museum
Dover Military Bathhouse	Buried Archaeology	Scheduled Monument	Open Space	None
Dover harbour	Buried Archaeology	No	Urban	None
Western Pharos	Ruinous structure	Scheduled Monument	Limited access in Drop Redoubt	Drop redoubt interpretation?
Eastern Pharos	Historic building	Scheduled Monument, Listed	Managed visitor attraction	English Heritage Site

Asset	Form	Designation & Protection	Accessibility	Interpretation
Saxon Shore Fort at Dover	Ruinous structure, Buried Archaeology	Part Scheduled Monument	Limited Access to bastion	Limited
Roman Road network	Historic routes, historic landscape features, Archaeology	Some Conservation Area protection	Public highway and footpath network access	None
Lydden Sea Valley & Lydden Wall	Historic Landscape Earthwork	None	Trackway and public footpath	None
Rural Settlement	Buried archaeology	None	Mainly farmland	None
Wingham Villa	Buried Archaeology	Scheduled	Private land	None
Sandwich Villa	Buried Archaeology	None	Private farm land	None
Sholden Villa	Buried Archaeology	None	Private land / caravan site	None
Downlands Walmer villa	Buried Archaeology	None	Private land / farmland	None
Each End Villa	Buried Archaeology	None	Private farmland	None
Roman burial	Buried Archaeology	None	Various locations mainly private land	None
Richborough Temples	Buried Archaeology	Scheduled Monument	Managed visitor site	English Heritage Site
Worth Temple	Buried Archaeology	Scheduled Monument	None	None
Hammill Ritual Shaft	Record only	None	Private land	None
Mill Hill Ritual Shaft	Buried Archaeology (chalk figurine in Dover Museum)	None	Under housing estate	None on-site. Interpretation of Chalk Figurine at Dover Museum
Roman industry and farming	Buried Archaeology Palaeo-environmental	None	Various	None

Appendix 1:
Theme 3.2 – Arrival of the Saxons

Theme 3.2 – Arrival of the Saxons

Summary

3.107 With the withdrawal of Roman administration, East Kent sees the arrival and settlement of the Anglo-Saxons and the emergence of a relatively early and wealthy post Roman society. The abundant and rich cemeteries of the fifth to seventh centuries in the District illustrate a distinctive cultural complexion that distinguishes the emerging Kingdom of Kent from the Anglo-Saxon communities in other areas of Lowland Britain. From this point we see the roots of today's settlement patterns, landscape and the arrival of Christianity through the District.

Introduction

3.108 The Anglo-Saxon period, sometimes referred to as the Early Medieval period or the 'Dark Ages' dates from the 5th to 11th centuries AD. The period saw the demise of the Western Roman Empire and started with the withdrawal of Roman administration from Britain at the start of the 5th century. The following centuries saw the mass migration of Germanic peoples from the continent to settle in Lowland Britain. The scale of the migration and extent that the indigenous Romano-British population contributed to the emerging post-Roman society in Kent is not understood. The debate includes arguments of Anglo-Saxon settlement in a depopulated landscape or conversely a gradual assimilation of the indigenous communities into the Anglo-Saxon society. Whatever the process, it is clear that the transformation of society that took place during the 5th and 6th centuries in Lowland

Cover Figure 1 *A a gilt-copper alloy Kentish disc brooch from St Margaret's-at-Cliffe. © Canterbury Archaeological Trust*

Glass bowls and beakers found in the rich graves of Anglo Saxons at Buckland in 1994. © Canterbury Archaeological Trust

Britain was seismic.

3.109 The Kingdom of Kent emerged as an early and relatively wealthy post-Roman state during the late 5th and 6th centuries AD. Kent (and east Kent in particular) exhibits a distinctive cultural complexion during this period that distinguishes it from the Anglo-Saxon identities seen in other parts of eastern and lowland Britain at this time. The basis of this emergent 'Kentish' identity and culture was complex, drawn from different groups from around the southern coasts of the North Sea, from the near continent, and from Britain itself. Certainly it was not produced simply as a result of mass migration into Kent by a single group (such as the Jutes), although Jutish/southern Scandinavian (or 'North Sea coastal zone') and proto- and early Merovingian strands are clearly apparent within Kentish material culture during the late 5th and early 6th centuries (Richardson 2011).

3.110 By the end of the 6th century the Kingdom of Kent is likely to have encompassed all that is the modern county and exercised some degree of control over a much larger area including all or parts of East Sussex, Surrey, Essex and London. The Kingdom's powerbase was at this time in east Kent. The Kingdom was divided into a number of administrative districts known as '*regios*', each centred on a royal estate (*villa regales*) identifiable from a placename ending in '*-ge*' The territory of two regios fall within Dover District: The easternmost *regio* was centred on Eastry (OE '*Eastorege*') and included Dover and its surroundings. The district immediately to the west of Dover seems to have been centred on a royal estate at Lyminge ('*Limenge*') which lies in present Shepway District.


2

Figure 2 *Eastry Court, the probable site of the palace of the 'villa regales', the royal estate centre of the Eastorege 'regio' or administrative district of the Kingdom of Kent*

3.111 Much of the present settlement pattern and landscape that we see in the District today had origins in the period or earlier. Many of the existing farmsteads, hamlets and villages, boundaries and routeways were established during the 5th to 11th centuries. In that regard, the Anglo-Saxon period plays a leading role in providing the District with its distinctive historic character and rural landscape. The English language has its origins in the Anglo-Saxon period and many of the place names in the District originated at that time. These names can be traced through elements such as '–ham, -ing, -sted, -tun, -wic, -ora'.

3.112 Although direct settlement evidence is scant, burial evidence is more plentiful and does help us to model the broad pattern. Analysis of this suggests that early Anglo-Saxon settlement appears to be focused on the principle river valleys or close to the coast and along the pre-existing main Roman communication routes. Later the settlement appears to have spread inland to the foothills of the North Downs scarp and the routes of transhumance (movement of livestock for summer pasture) into the Weald. The heavy soils of the clay-with-flints appear to have been less attractive for settlement at this time. Richardson (2011) observes "*a model of settlements focussed on well-watered land in river valleys or below the North Downs scarp, with highly visible cemeteries on overlooking slopes, and adjacent Wealden and Downland areas being exploited through transhumance seems reasonable.*"

3.113 There appears to be some correspondence between the first

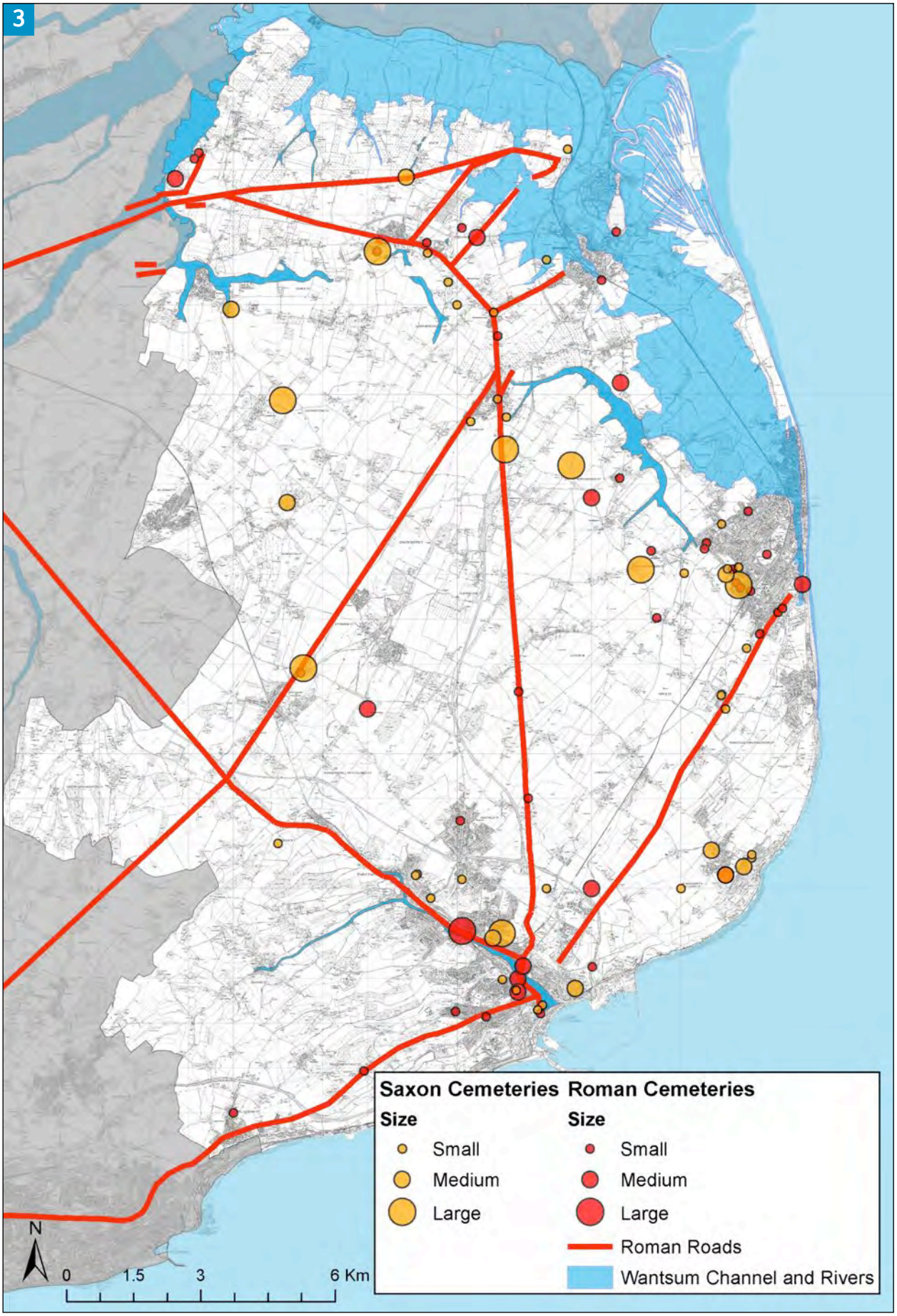


Figure 3 *The distribution of Roman and Anglo-Saxon Burial sites in relation to the Roman road network*

settlements and Roman-British areas of settlement though the relationship with later phases of colonisation is more tentative. Primary settlement centres which exhibit association with Roman sites, early Anglo-Saxon use and the development of a minster church that fall in Dover District have been identified at Eastry, Dover, Wingham and Northbourne (Brookes 2007).

3.114 From the evidence of certain object types it appears that Kent, in the 6th and early 7th centuries was pre-eminent amongst the Anglo-Saxon Kingdoms in continental trade. Middle Saxon trading and production centres (*wics*) emerged in Kent from the middle of the 7th century. Amongst these were Sandwich and Dover although on the basis of present evidence they do not seem to have been of the same scale as the true '*wics*' at Southampton, Ipswich, London and York. The middle of the 8th century saw importation of English wares and in particular Ipswich Ware. Previously wares had been mainly of French origin. Ipswich Ware has been found near to Sandwich, at Dover and Richborough.

3.115 The relatively low number of archaeological remains associated with Anglo-Saxon rural settlement, compared to the more abundant cemetery evidence is notable. Aside from the difficulty in detecting what are likely to be dispersed and ephemeral traces of settlement it is possible that many existing farmsteads, hamlets and villages in Kent date from, or pre-date, the Anglo-Saxon period resulting a difficulty in distinguishing remains of the period if they survive. If this is the case the pattern of continuity of settlement differs from other Anglo-Saxon areas of England which saw varying degrees of settlement re-organisation. By the late 11th century the *Domesday Book* (1086) provides a detailed picture of settlements and the rural economy of the District.

3.116 AD597 saw the arrival on the East

Kent coast of St Augustine leading a mission from Pope Gregory to convert King Æthelbert and his Kingdom of Kent to Christianity. He is considered to have landed first on Thanet at Ebbsfleet and then proceeded on to the Kingdom's main town at Canterbury. Æthelbert, who was already married to a Christian princess, Bertha, was converted and he allowed the missionaries freedom to preach and found a monastery at Canterbury. Augustine was consecrated as Bishop of the English and converted many of the King's subjects. The events are the founding moments of the English Church. Prior to the arrival of Augustine Christianity in Britain was mainly practiced by the native British peoples in the west of the country under the influence of Irish missionaries. Before the Roman withdrawal, Britain had been converted to Christianity but the arrival of Anglo-Saxon settlers in the southern and eastern regions of the country saw the

Figure 4 *St Augustine's Cross at Cliffesend, Thanet celebrates the landing of St Augustine at Ebbsfleet just to the north of the District boundary*

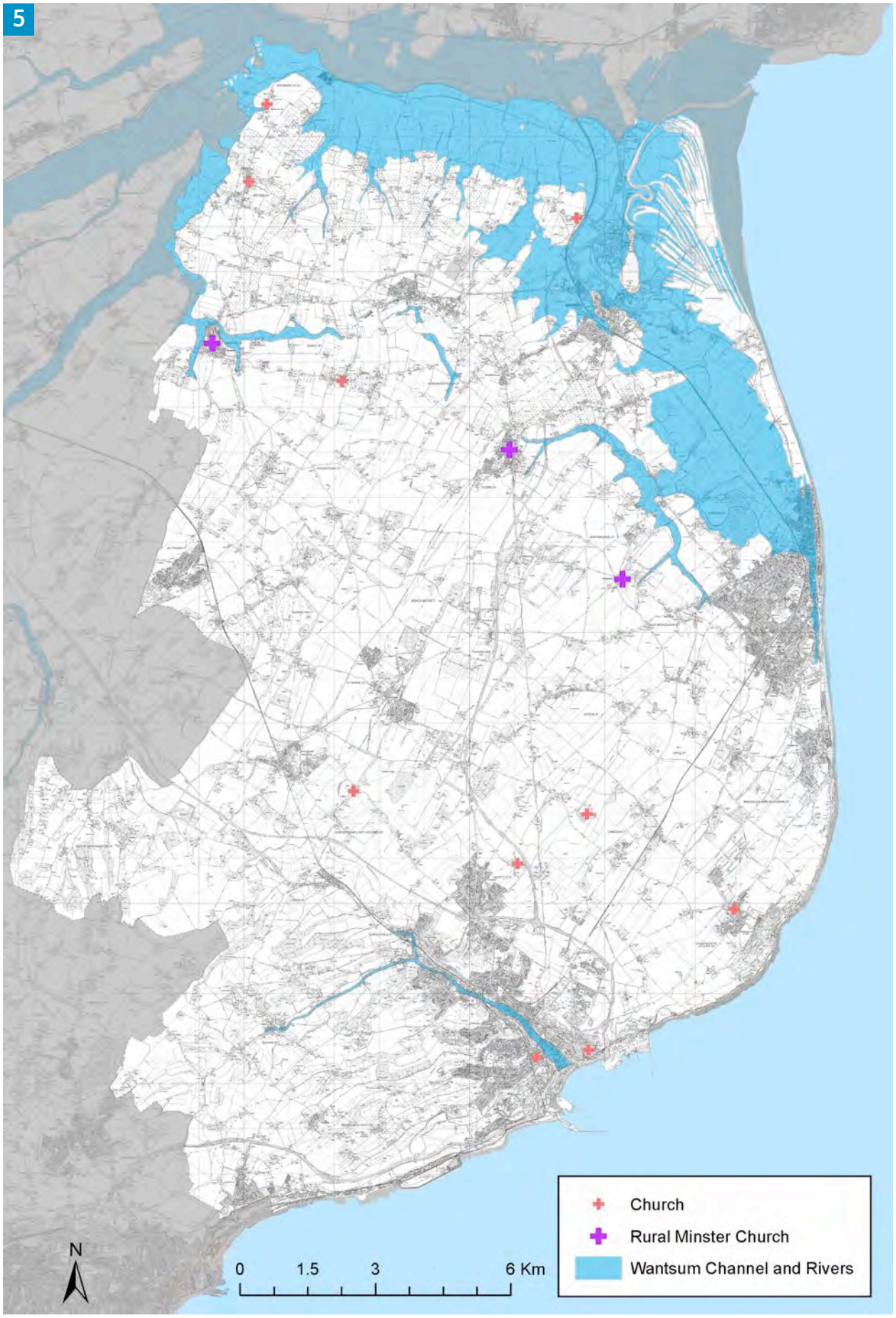


Figure 5 *Anglo-Saxon Churches and Minsters in Dover District*

Christian religion replaced with the pagan religions of the Germanic peoples.

3.117 Following conversion of Æthelbert and his subjects, the power and influence of the church grew in Kent through the 7th and 8th centuries. The 7th century saw the foundation of a number of minster churches under Royal patronage. These establishments rapidly developed as cultural and economic hubs with extensive estates. It is likely that the people in Dover District were amongst the earliest converts of Augustine. Minster churches were established at Dover, Eastry, Northbourne and Wingham. An early church, dedicated to St Augustine also developed at Richborough within the old Roman fort. A medieval legend has it that Augustine landed at Richborough on his route to Canterbury but this is not mentioned by Bede. A Christian chapel may have existed in the fort during the late 4th to early 5th century prior to Roman abandonment. Monasteries were also established under royal patronage. There was a community of cannons established at St Martin's in Dover before AD 640 and possibly a monastery at the royal centre in Eastry. The minster churches were important land holders and played a key role in the Saxon trade networks and rural economy and influenced the development of the rural landscape. Each controlled a number of 'daughter churches' which comprised the parish system that we see today and was more or less fully developed by 1100.

3.118 Although there is little documentary account of the 5th and 6th centuries, from the 7th century onwards important sources are available. Letters, law codes and charters start to emerge. Key documents like Bede's 8th century *Ecclesiastical History of the English People*, the *Anglo-Saxon Chronicle* and in the 11th century the *Domesday Book* and *Domesday Monachorum* all provide important accounts of events and the organisation of the Saxon kingdoms.

3.119 The archaeological evidence for the Anglo-Saxons in the District is dominated by the burials and cemeteries of the 5th to early 8th centuries. These are characterised by inhumation in formal cemeteries with bodies interred fully clothed and often accompanied by a range of grave goods including high status objects exhibiting highly skilled craftsmanship. Cremation burial was also practiced. The cemeteries are often found adjacent to important roads and trackways, many of which remained in use from the Roman road network and were in some cases marked by small barrows. Often Anglo-Saxon cemeteries are to be found located close to Bronze Age burial mounds. The prehistoric monuments are likely to have been distinctive landscape features at the time and would have been located in prominent places that were attractive to the communities of both periods for burial practices.

Figure 6 *A female burial at Buckland Anglo-Saxon Cemetery. Note the grave goods which include includes a gold bracteates and other personal jewellery such as a silver finger ring, pendants and beads; a glass bowl and bell beakers, an ivory purse ring; an iron chatelaine with clusters of keys; a knife and a weaving batten*

Description of the Heritage Assets

3.120 The evidence for the Anglo-Saxon settlers and their Kingdom in Dover District takes a number of forms:

Documentary Sources

3.121 Documentary sources tell us of events, landownership and the organisation of the Kingdom from the early 7th century. Key documents include:

- **Bede's 8th century *Ecclesiastical History of the English People*** – relevant to Dover District is the account of the arrival of St Augustine at nearby Ebbsfleet and the subsequent conversion of King Æthelbert and his people. A 14th century account by a monk at St Augustine's Abbey in Canterbury, William Thorne, relates to a story of Augustine landing at Richborough and a chapel being erected to house a preserved footprint of the saint.

- The **Anglo-Saxon Chronicle** - A collection of annals chronicling the history of the Anglo-Saxons from the time of Caesar's raid to after the Norman Conquest. The original was probably scribed during the reign of Alfred the Great in the late 9th century and distributed to monasteries where it was independently updated. Although not an un-biased account, written some centuries after many events with contradiction and errors it is still one of the most important accounts of the period. It refers to historical events in the District.

- **The Domesday Book 1085-86** - A survey of landholdings and landholders wealth carried out across England and Wales on the orders of William the Conqueror. The survey provides the first detailed survey of landholdings and covers many places in the District. For example (Temple) Ewell is recorded as being of 58 households and is included in three entries. One entry with 15 villagers and 12 small holders is valued over £10 to the Lord in 1086 who was Hugh de Montfort. Mention is made of 4 acres of meadow, 4 acres of woodland for swine, ploughland for three teams and two mills.

- **The Domesday Monachorum** is a collection of texts which survey the lands of the Archbishop of Canterbury, the monks of Christ Church Canterbury, the bishop of Rochester and other landowners in Kent around the time of Domesday.

Landscape and Geography

3.122 The **landscape and geography** of the District provides many associations with the Anglo-Saxon history of the area. Much of the rural settlement pattern that we see in the District had its origins in the period. **Place-name** evidence can be used to identify early Anglo-Saxon settlements. Examples such as Alkham, Finglesham, Nonington, Mongeham, Wingham, Stonar, Sandwich are all just a few of the many places whose names include Anglo-Saxon elements and in many instances are associated with archaeological evidence of the period.

3.123 The **territorial organisation** of the landscape can also be traced back to Anglo-Saxon times although it is difficult to assign hard boundaries and in fact may have been organised through a network of resource areas with detached lands. We do know that at the uppermost scale the area was at its earliest split between the two '*regios*' based

on the royal estate centres at Eastry and Lyminge. These developed as the basis of the provinces of the Kingdom of Kent known as 'lathes' and by Domesday most of the District is a part of Eastry Lathe though the south western area falls within Lympne Lathe. Sometime in the 9th century, following the loss of independence of the Kingdom, the lathes become subdivided into more local administrative areas known as 'hundreds'. Open-air courts and meeting places for each hundred would be located normally at a central place at a prominent road or river crossing, settlement of distinctive natural feature. Anglo-Saxon hundreds within the District were Preston, Wingham, Eastry, Sandwich, Cornilo, Bewsbury and part of Folkestone (Brookes 2007). With the coming of Christianity and the establishment of daughter churches to the minsters, the development of the parishes as a territorial unit developed in the late Anglo-Saxon period and many of today's parishes were established by Domesday.

3.124 **Landscape features** such as estate and territorial boundaries may originate in

the period. Trackways, lanes and droveways may also derive from the period.

Structural Evidence

3.125 Anglo-Saxon **structural evidence**, other than that in the archaeological record (discussed below) is very limited in the District. What little that there is mainly relates to the District's historic churches. None of the District's present churches contain fabric dating to the early Saxon period though remains of the earliest church at St Martin in Dover has been recorded through excavation. Later Anglo-Saxon fabric can be seen in the churches at St Margaret at Cliffe, East Langdon, Whitfield, St Mary in Castro Dover, Coldred, Eastry, Staple, Preston, and West Stourmouth. The latter lies within an earthwork enclosure that may also be pre-conquest.

Archaeology

3.126 While the documentary, place-name and structural evidence of the Anglo-Saxon period tends to increase through the period the converse is the case with the **archaeological record**. This is mainly due to the dominance of the evidence of burial and the 5th to 8th century practice of furnished burial.

3.127 Within the District numerous Anglo-Saxon cemeteries have been identified and many excavated. The burial record ranges from single inhumations or cremations

Figure 7 *Wingham St Mary's, the site of a Saxon Minster church*
Figure 8 *Excavating an Anglo-Saxon grave found in St Margaret's-at-Cliffe. © Canterbury Archaeological Trust*

through to cemeteries of several hundred inhumations. The thousands of graves and artefacts that have been excavated provide an extremely important insight into the material culture of the period and the distinctive character and wealth of those who settled and formed the Kingdom of Kent. Burial evidence from the 5th century is generally scarce when compared to the evidence of the 6th and 7th centuries. This is primarily due to the burial practice of the time being a relatively minimalist rite. Burials dating to the late fifth century have been found however at Buckland and Ringlemere, the latter which comprised a mixed rite cemetery of inhumation and cremation. Six cemeteries (Guilton, Beacon Hill, Buckland, Updown, Finglesham and Sibbertswold) number in excess of 100 graves. Additional cemeteries continue to be identified through aerial photography, excavation and metal detecting finds and include major cemeteries recently observed at Woolage village, Goodnestone and Marlborough Road, Walmer.

3.128 Figure 3 which sets out the distribution of the presently known Anglo-Saxon burial sites in Dover District illustrates the strong relationship between the principle river valleys, the coast and the Roman road network. Additional sites are being continuously discovered in the District through aerial photography, metal detecting and archaeology which may help to strengthen the picture and provide a finer grain. At present the notable concentrations are:

- along the upper valley slopes of the Dour Valley including the large and rich cemeteries at Buckland;
- a cluster of small and medium sized cemeteries on the chalk ridges at St Margaret's at Cliffe many of which are focused on prehistoric burial mounds for example at The Droveway;
- a number suggesting an early road between Dover and Deal;
- a number of sizeable cemeteries on

Figure 9 *Buckland Cemetery under excavation on the upper slopes of the Dour Valley. © Canterbury Archaeological Trust*

high areas flanking the Lydden Valley and it's fleets, including Mill Hill Deal, Finglesham and Beacon Hill;

- a number of cemeteries focused on the roads leading into the royal estate centre at Eastry;
- cemeteries bordering the former Wantsum Channel and the road network that emerges from Richborough. Of particular note are the cemeteries at Ash which lie close to the Roman road to Canterbury;
- other major cemeteries lie inland either close to tributary valleys of the Stour or on possible route-ways through the Downs (eg. Shepherdswell / Sibbertswold).

3.129 Cemeteries were generally placed on slopes or just below ridgelines. The clay-with-flint plateaus in the downlands with their heavy soils and probably at the time wooded see a notable absence. Settlements are likely to have been located in the more fertile river valleys and below the scarp with the cemeteries highly visible on the overlooking slopes. It has been noted (Parfitt and Dickinson 2007) that in the Dour Valley the cemeteries (namely Durham Hill, Priory Hill, High Meadow, Old Park, Lousyberry, Watersend and Buckland) are regularly spaced along it. Each of the cemeteries is located on a chalk spur and on promontories roughly mid-way down the valley side.

3.130 The frequent association of Anglo-Saxon burial sites and Bronze Age barrows is well noted in the area and elsewhere in Kent and England. The Anglo-Saxons were clearly drawn to the barrows as can be seen on sites such as Buckland, Alkham and St Margaret's. Both the barrows and the later cemeteries were sited to form highly visible landmarks with extensive views, they may have acted as territorial markers, establishing ownership and control over the landscape as well as being places for the burial of the dead.

3.131 The richness of the assemblages in the Anglo-Saxon burials cannot be over-stated, particularly for those dating from the 6th and 7th centuries. As well as examples of weapon burials elaborately laid out, others with richly crafted dress ornamentation such as brooches and beads are regularly found. Metal detecting of the agricultural landscape of the District is often bringing to light new discoveries of Anglo-Saxon grave goods and flagging up new, sometimes extensive cemeteries and in some cases the presence of associated Bronze Age sites such as at Ringlemere. With the end of furnished burial in the 8th century the archaeological and metal detecting record for the period drops considerably.

3.132 Archaeological evidence for Anglo-Saxon **settlement** in the District is scant. Only in **Dover** have the excavations undertaken by the Kent Archaeological Rescue Unit in the vicinity of York Street

Figure 10 *The Buckland Cemetery site looking across the Dour valley. © Canterbury Archaeological Trust*
Figure 11 *At Eden Roc on The Droveway, St Margaret's Saxon burials (highlighted in purple) were focused on a Bronze Age barrow (the ring-ditch that would have enclosed the barrow is shown blue)*

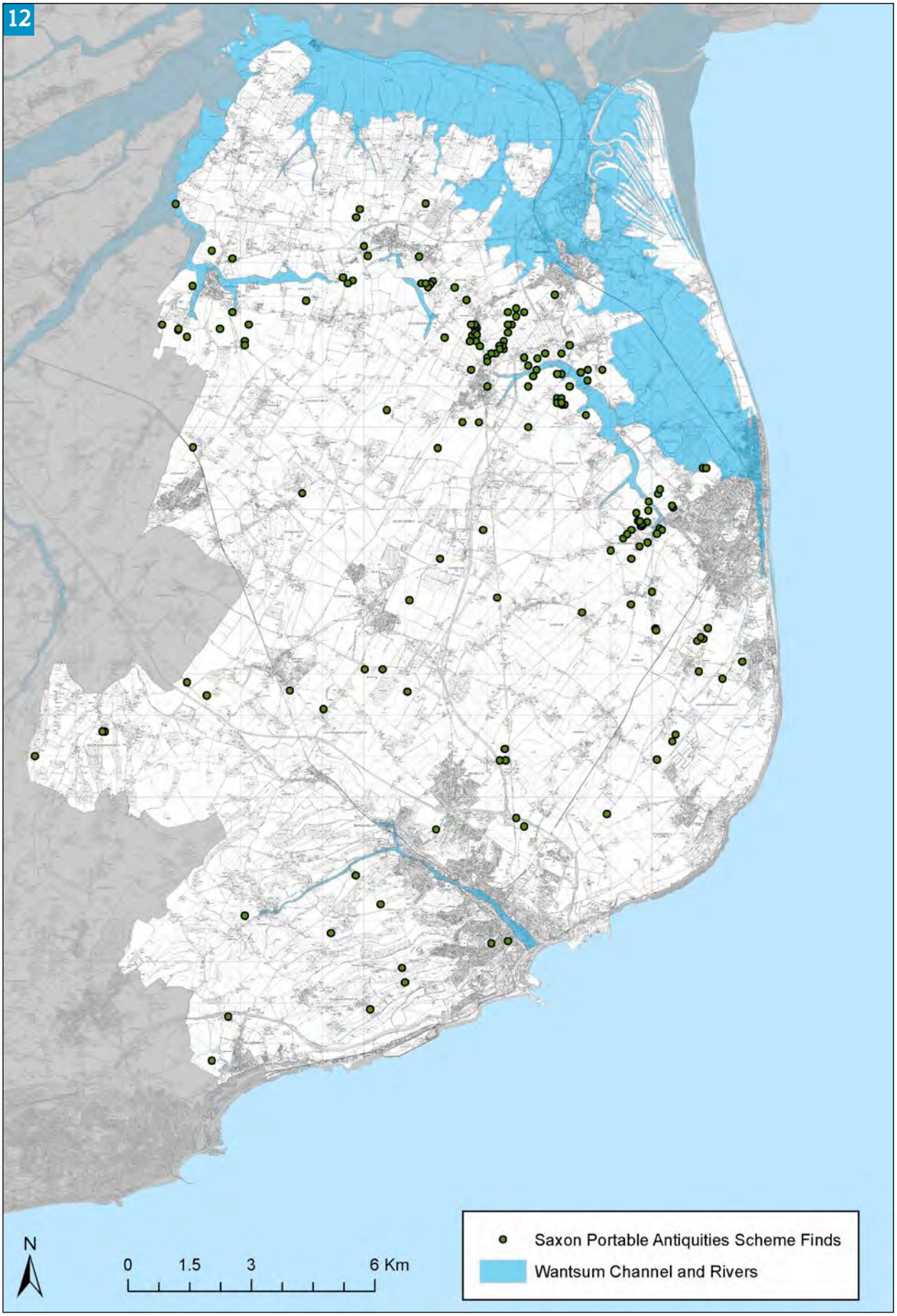


Figure 12 The distribution of Anglo-Saxon metal finds reported to the Portable Antiquities Scheme

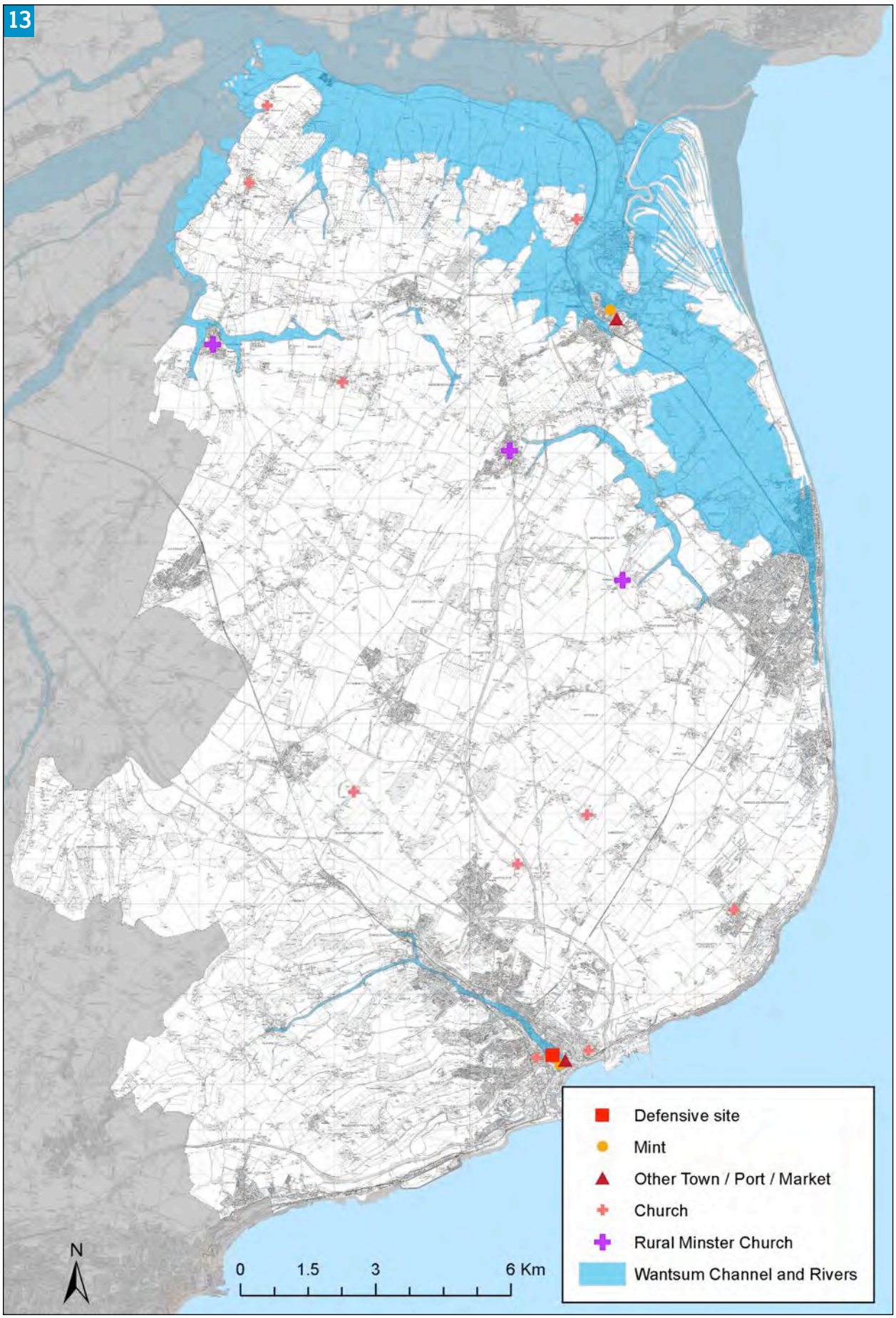


Figure 13 *Key Anglo-Saxon settlement sites*

during the 1970s and 1980s provided substantial evidence. The publication of the work by the excavator Brian Philp in 2003 describes the evidence for the Anglo-Saxon town on the western side of the Dour close to its mouth. Amongst and around the ruins of the former Roman forts, whose walls would have been substantial at the time, was found evidence for settlement that was probably continuous between the 6th and 11th centuries. The discoveries included a number of sunken featured buildings with important structural evidence surviving that dated to the early part of the period (6th to 8th centuries). Later evidence included a stone-floored hall, post built buildings and a road. Of particular note was the remains of the wooden monastic church of St Martin's dating back to the 7th century and going through several rebuilds before its replacement by the Norman stone church of St Martin-le-Grand.

3.133 Other than the evidence excavated on the west side of the Dour there has been little to confirm archaeologically the presence of the postulated fortified site on Castle Hill to the east of the Dour. St Mary Castro was built on the hill around the end of the 10th century. It is surrounded by a large late Saxon cemetery which suggests that the present church replaced an earlier building.

3.134 Theories that propose that **Richborough** remained occupied in any significant way following the abandonment of Roman rule in the 5th century have yet to be proven through archaeological evidence. There is some evidence for a chapel with foundations provisionally dated to the later Anglo-Saxon period on the basis of coins of 7th to 9th century date though the dating is by no means clear. Later Norman construction may have removed evidence of an earlier site. Other finds in the general 'Richborough' area are more circumstantial and evidence of Anglo-Saxon activity in the wider area.

3.135 There has been much attention given recently to the Anglo-Saxon origins of **Sandwich** and the location of the original town (Clarke et al, 2010). Investigations in the present town walls have failed to find any archaeological evidence for the *wic* and a model has been proposed that the original trading settlement was focused on an area to the east of the present walled town that was previously the focus of Iron Age and Romano-British settlement. The evidence, though scant, arises from a small number of Ipswich Ware pot sherds, topography and possible early road connections to the Royal centre at Eastry which the *wic* would likely have served. Certainly the scant evidence suggests that the *wic* was unlikely to have been substantial. Alongside the trading settlement the model proposed suggests a possible Royal site just outside the eastern town walls on the site of the later castle. A possible monastic site may have been found in the western part of the walled town although there is as yet no archaeological evidence.

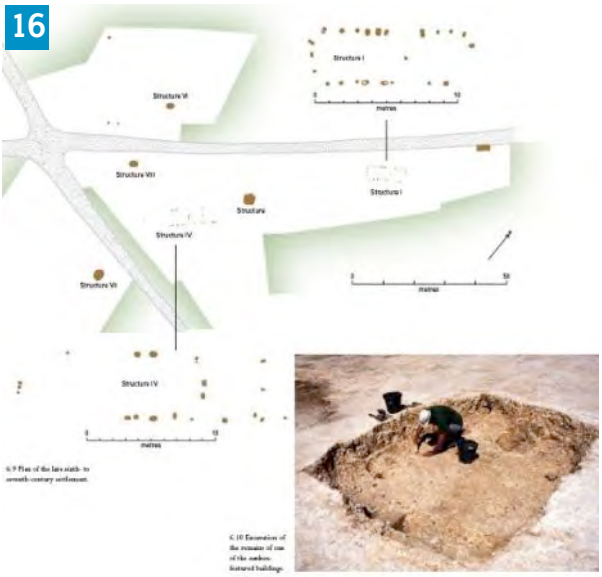
3.136 The evidence for **Eastry** as a Royal centre relies mainly on the documentary and place-name evidence rather than through archaeology. Four 5th and 6th century cemeteries have been found alongside Roman roads leading from Eastry but no evidence has yet been found of the 'palace' itself which has long been considered to lie in the area of Eastry Court. The site was the subject of an

Figure 14 *St Mary Castro and the Roman Pharos on Castle Hill, Dover. The church which was built late in the 10th century may have had a Saxon predecessor as early graves were found in the graveyard*

investigation by Time Team in 2005 (Wessex Archaeology 2005) which failed to find any Anglo-Saxon traces though it is recognised that such sites are difficult to find and may lie within the footprint of the present building. Elsewhere in Eastry remains of ditches and pits have been found on a site in the High Street and at Eastry Hospital.

3.137 Anglo-Saxon **rural settlement** evidence is typically scarce within the District as elsewhere in the county. The ephemeral and dispersed nature of settlement remains and the continuation of settlement foci to the present day make discovery of remains difficult. It is only through recent approaches involving large scale topsoil stripping for archaeology that settlement sites are becoming more evident. In the District the most notable site is that found in 1995 at Church Whitfield during the excavation of the new bypass. The site included two post built halls, four sunken featured buildings and pits. Elsewhere finds of occasional pits and ditches are the sole evidence.

3.138 Given that much of the present parishes were established by the time of Domesday, it is possible that archaeological examination of the sites of many of the District's parish churches could reveal evidence of late Saxon predecessors. Only at St Martin's in Dover has archaeological evidence of an early Anglo-Saxon church been recorded while excavations at Richborough and the existing fabric of a



number as described above have provided evidence of late Saxon churches.

3.139 The Domesday Book records a number of mills on the Dour. These included mills at Temple Ewell, Crabble, Buckland, Charlton and in the area of Lorne Road. A mill belonging to the Priory was also recorded as well as a tide mill which is thought to have been demolished before the Norman conquest supposedly due to the damage it caused to shipping. Archaeological investigation within the Dour may reveal important evidence of these and other early mills with waterlogged conditions potentially providing conditions for good preservation.

Statement of Significance

3.140 The District's heritage assets have outstanding value in their potential to evidence the arrival and settlement of the Anglo Saxons and the reintroduction of Christianity following Augustine's landing on this coast. The wealth and cultural distinctiveness of the early Saxon peoples in this area is illustrated through a particularly rich burial record with a number of sites designated as nationally important. The settlement evidence in the district, in common with much of Kent, is elusive and confined principally to the archaeological record. The many churches in the District

Figure 15 *A sixth century grave being excavated by the Dover Archaeological Group in Eastry. © Portable Antiquities Scheme*

Figure 16 *Church Whitfield Anglo-Saxon settlement excavated in advance of new bypass construction*

while presumably having Saxon predecessors exhibit limited structural survival. The settlement pattern in the District in the main reflects that of its late Saxon settlements. Overall the District's Saxon heritage assets are of **considerable significance**.

Evidential Value

3.141 There is outstanding archaeological potential to evidence the way in which the earliest Anglo-Saxon peoples arrived on the east Kent coastline and began their colonisation. How the new settlers were received by the indigenous communities may be apparent in the archaeological record of this area of initial contact. The archaeology of the District is likely to have a wealth of evidence that demonstrates transition from Roman to Saxon Britain addressing a national research priority.

3.142 The subsequent development and organisation of the Saxon kingdom, settlement patterns and the trading and cultural contacts established through ports such as Sandwich and Dover may be revealed. Similarly there is likely to be important evidence within the District of the re-establishment and development of the early Christian Church and its growing influence.

3.143 Archaeological investigation may provide important information on the form and development of the port towns and the wider rural settlement. A better understanding of the farming practices, land management and industrial activities taking place in the area can be gained from further archaeological investigation.

Historical Illustrative Value

3.144 The widespread Anglo-Saxon assets in the District illustrate the early settlement of the south east corner of England by Germanic peoples following the departure of Roman administration. In a historical 'Dark Age' the archaeological record can help to shed light on this major national transition that was to eventually establish the pattern of settlement and landscape form that survives to this day.

Figure 17 A selection of brooches excavated from Buckland Anglo-Saxon cemetery in 1994. © Canterbury Archaeological Trust

3.145 The burial record together with the archaeological evidence from the early churches will help to illustrate the arrival of Christianity and the transition from pagan religions over the 6th and seventh centuries.

3.146 T he assets will assist in illustrating the distinctive character that emerges in the development of the Kingdom of Kent.

Historical Associative Value

3.147 The assets have strong associations with nationally significant events such as the earliest arrival of the Anglo-Saxon peoples following the abandonment of Roman administration (from Richborough) and the arrival of the Augustinian Mission on the nearby Thanet shore and later by tradition through Richborough. The Anglos-Saxon Chronicles include a number of events in the District.

Aesthetic Value

3.148 Other than the remains of the later Saxon churches there is little that can be visibly appreciated within the district. The much modified Church of St Mary Castro sitting on the eastern heights of Dover stands as a distinct landmark on the skyline visible from the town and the sea, adding to the spectacular backdrop that the heights, the White Cliffs, Dover Castle and the Roman Pharos provide to the town of Dover.

3.149 The principle aesthetic value of the Saxon assets lies with the fine craftsmanship of the makers of the complex brooches and beads found in the District's 5th to 7th century cemeteries. The brooches often constructed from composite metals and stones demonstrate intricate detail and artistic qualities.

Communal Value

3.150 The establishment of the modern settlement pattern in the Saxon period provides strong connections with the history of local places and communities throughout the District. The story of the establishment of Christianity can provide a connection with the nearby centre at Canterbury and is celebrated through the creation of the St Augustine Trail in the area. The parish of Finglesham demonstrates an understanding of its Saxon roots through the use of the design of a brooch found on the nearby cemetery on its village sign.

Vulnerabilities

3.151 The buried archaeology of the Saxon town of Dover in the western areas of Dover

Figure 18 *Fine workmanship shown on a Kentish Disc Brooch dated late sixth to early seventh century found at Eastry. © Portable Antiquities Scheme*

Figure 19 *Finglesham, recognised as having Saxon origins through is name celebrates its Anglo-Saxon heritage with the depiction of a brooch on its village sign*

town centre are vulnerable to redevelopment and construction works. Although some areas around the Roman forts and the 'Painted House' are protected as Scheduled Monuments, much of the resource is not. While some of the features of the Saxon town and harbour are deeply buried below metres of alluvium and made ground, other areas are less covered and more vulnerable. The complex buried archaeology of the centre of Dover suffers from a lack of a coherent model of what survives, where and at what potential depth and a number of important investigations remain to be published. The result is that development comes forward with insufficient appreciation of the archaeological issues that are faced and the significance of the remains that are potentially present.

3.152 The buried archaeology within other towns and settlement centres is similarly vulnerable to development activities though perhaps not on the scale as Dover given that many historic cores lie with Conservation Areas.

3.153 Across the wider District, the Saxon assets lie mainly in farmed land and therefore vulnerable to ploughing. A number of the sites intended for new residential and other development within the District include potential Saxon remains which may be affected by the development works.

3.154 Saxon cemetery sites are particularly vulnerable to illicit metal detecting. Although a number of sites are protected through Scheduled Monument designation, many new sites are being discovered through detection and are being reported through the Portable Antiquities Scheme. The sizeable assemblages being recovered are an increasing burden on curating resources given the often considerable costs for conservation of metalwork.

3.155 The few standing Saxon remains in the District are exposed to the elements and will require ongoing monitoring and conservation to maintain their present condition.

3.156 The settlement and landscape pattern is vulnerable to expansion of the major towns in the District where distinct villages become subsumed into the outskirts of the expanding towns. The loss of boundaries as fields are enlarged for modern agricultural practices and in places subsumed in expansive solar parks may affect the pattern of the historic landscape.

3.157 The remains of timber mill structures within the alluvial deposits of the Dour Valley may be affected by changes in hydrology.

Opportunities

3.158 The District's Saxon assets have the potential to illustrate the story of the transition of Roman Britain into the Saxon Kingdom of Kent. There is potential benefit in linking the story of the Saxon arrival with

Figure 20 *Kent County Council's Finds Liaison Officer and local archaeologists excavate a Saxon grave in Eastry. © Portable Antiquities Scheme*

Figure 21 *Time Team investigations in Eastry generated a good deal of public interest but the Saxon palace still awaits discovery*

that of the Roman story and assets.

3.159 Further investigation and research in the village centres and towns of the District may help to establish the origins of these settlements and in this respect further investigation of the origins of Sandwich and the Royal centre at Eastry should be priorities. Research work such as that of the Alkham Valley Historical Research Group who are studying the Anglo-Saxon archaeology of the Alkham Valley demonstrates the way in which local groups can contribute to the emerging picture of Anglo-Saxon settlement in the District.

3.160 The development of an Urban Archaeological Database for Dover would provide a better understanding of the effects of development proposals on the Saxon archaeology of the town and help in the future designation, protection and conservation of key assets. Mapping and analysis of aerial photographs, together with the plotting of metal detecting finds reported to the Portable Antiquities Scheme will enhance our understanding of the Saxon rural landscape.

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Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Eastry 'villa regales' at Eastry Court (possibly)	Archaeology, Documentary, Placename	Conservation Area and Listed Building	Private land	None
Early Anglo-Saxon settlement	Archaeology	N/A	Various	None
Later Saxon settlement	Settlement pattern, Placename, Archaeology, Documentary	Conservation Areas	Various	Village interpretation panels
Eastry Minster Church	Archaeology	Listed Building, Conservation Area	Community building	None
Dover Minster Church	Archaeology (excavated)	Scheduled Monument	Open space	Published
Wingham Minster Church	Archaeology	Listed Building, Conservation Area	Community building	None
Northbourne Minster Church	Archaeology	Listed Building, Conservation Area	Community building	None
Sandwich Anglo-Saxon trading centre	Archaeology, Placename	None	Mainly agricultural	Published
Dover Anglo-Saxon town	Archaeology	Scheduled Monument, Conservation Area	Various - private land, open land and public spaces	Roman Painted House & Dover Museum
Richborough Saxon chapel	Archaeology	Scheduled Monument	Managed heritage site	English Heritage site
Anglo Saxon cemeteries	Archaeology	Scheduled Monuments (many not)	Mainly farmland	Museum displays; Finglesham sign
Land and territory division	Archaeology, Historic Landscape features	None	Mainly farmland	None
Late Anglo-Saxon Churches at St Margaret's at Cliffe, East Langdon, Whitfield, St Mary in Castro, Coldred, Eastry, Staple, Preston, West Stourmouth	Historic Fabric, Archaeology	Scheduled Monuments, Conservation Areas, Listed Buildings	Community buildings	Unknown
Churches	Archaeology	Conservation Areas, Listed Buildings	Community buildings	Unknown

Asset	Form	Designation & Protection	Accessibility	Interpretation
Dover fortified site (Castle Hill)	Archaeology	Scheduled Monument, Conservation Area	Managed Heritage site	English Heritage site
West Stourmouth enclosure	Archaeology	Conservation Area	Community building and site	Unknown
Dour mills	Archaeology	Conservation Area	Various	Trail / web sites

Appendix 1:
Theme 3.3 – Medieval Defences

Theme 3.3 – Medieval Defences

Summary

3.161 Dover District contains a range of important medieval defences. Dover Castle is the most pre-emanate of the group, being one of the most powerful medieval castles in England. Dover Castle is an outstanding example of medieval defensive architecture that is hugely symbolic for the identity of the town and District.

Introduction

3.162 This Theme Paper considers the medieval defences in Dover District from the invasion of England by William Duke of Normandy in AD 1066 until the start of the reign of Henry VIII in 1509. This is a period that covers over 400 years, in which there were major advances in military technology, not least the introduction of gunpowder into Europe in the 1320s.

3.163 Medieval defences in the District begin with the castles of the Norman Conquest. Initially erected as a means to control territory, maintain government and (in coastal sites) to defend against raiders, castles later developed a wider administrative, residential and social role.

3.164 In medieval England insecurities throughout the Middle Ages meant that the fear of invasion from continental Europe was a constant threat, particularly following the loss of Normandy in 1204 and during the Hundred Years War (1337 – 1453). Cross-Channel raiding was common and town defences were erected at Sandwich and Dover, both important ports in the Middle Ages. Town defences were not only a form of defence; they were also a sign of civic pride.

Cover *Footpath along Sandwich's defensive wall circuit*
Figure 1 *Dover Castle from the air*

Castles

3.165 There are three sites known in Dover District that could be truly described as a Castle in medieval times (i.e. '*a fortified residence which might combine administrative and judicial functions but in which military considerations were paramount*'). Two of these (Dover and Sandwich) were built under royal authority, whilst the third at Coldred, a lordship castle, acted as a defensible residence controlling a wider estate.

3.166 A licence to crenellate was also granted to **Langdon Abbey** in 1348, but this was not a true castle and is not considered in any detail here. The fortified medieval manor house at **Walmer Court** is discussed in Theme 7.2 (medieval courts and manors) which is the most appropriate form for most of its history. It has however been described in its early form as a 'proto-keep' or 'thin-walled keep' and should be considered as a medieval defence asset. The later Henrician

castles at Walmer, Deal and Sandwich are considered separately in the next section (Theme 3.4).

3.167 **Dover Castle** is an iconic structure, located at a key position on the Channel Coast. It is likely that some form of defensive works occupied the site of the present castle when Duke William arrived in the town in the autumn of AD1066, in any event his army would have built new fortifications at the castle site to control the town and port. Little is known of the early Norman fortifications, and the site was completely rebuilt and extended under the reign of Henry II (1154 – 1189). Henry's work involved great expenditure and the square keep, inner bailey and north-east part of the outer bailey were all built as part of these works.

3.168 King John further extended and reworked the defences following the loss of Normandy at the beginning of the thirteenth century. It is under John's rule (1199 – 1216) that the castle was involved in one of medieval England's greatest sieges. The siege of 1216-17 was a result of a civil war between John and rebellious barons supported by the French Prince Louis. The castle held, but the siege uncovered weaknesses in the defences and the castle was heavily damaged. As a result of the damages arising from the siege the new King (Henry III, 1216 – 1272) further strengthened the castle's defences. It was under Henry's reign that the castle reached the peak of its medieval power.

3.169 In the later medieval period the castle continued to be maintained, but its defensive role declined somewhat. The castle acted as a place of accommodation, housing monarchs, ambassadors, courtiers and other dignitaries travelling between England and the continent.

Figure 2 *Dover Castle keep. © Explore Kent*

3.170 A castle at **Sandwich** is first mentioned in documentary sources in the thirteenth century when Roger de Leyburn captured the castle and took the town in 1266. The location of this castle is uncertain and a possible motte and bailey at **Mary-le-Bone Hill** and the later castle site at **Castlemead** are both contenders.

3.171 Mary-le-Bone Hill lies on the western edge side of Sandwich on a promontory overlooking a sheltered fleet or haven. Evidence for a castle at Mary-le-Bone Hill primarily comes from cropmarks, which show a well defined circular ditch (which may define a motte) with a less distinct enclosure (bailey) attached to it. The hill was partially levelled in the 1950s when archaeological observations recorded the stone footings of a thirteenth century building which was interpreted as being a chapel.

3.172 The presence of a Royal Castle at Castlemead is better attested both archaeologically and in the documentary record. Excavations at the site have revealed substantial ditches dated broadly to the thirteenth century and traces of stone and timber buildings have also been identified. There a number of documentary references to the castle at Castlemead throughout the fourteenth century. The castle would probably have primarily acted as an administrative centre for the town and in particular the overseeing of the King's fleets

Figure 3 *'Le Siege De Sandwich' - stylised illustration of the French raid on Sandwich in 1457 showing Sandwich Castle. © Dover Museum (d08458)*

Figure 4 *Aerial photograph showing the probable motte and bailey at Mary-le-Bone Hill*

anchored here. During the Hundred Years War (1337 – 1453) Sandwich would have been an important military site where Royal fleets would have mustered and troops destined for overseas service would have gathered for onward transport. It is likely that troops awaiting transport would have been encamped on lands around the castle, often for a considerable length of time.

3.173 As well as acting in an administrative role the castle must also have contained apartments, with King Edward III (1327 – 1377) staying there in 1345. In the later fourteenth century the castle also housed a gaol. There is no evidence that the castle ever saw any action, not even when the French attacked the town in the mid fifteenth century. Indeed the construction of the earthen ramparts on the eastern side of Sandwich would seem to have cut the castle off from the town. At the end of the fifteenth century the castle passed from Royal hands to the civic authorities.

3.174 **Coldred** is situated in a poor defensive position on a broad flat-topped ridge. The site is considered to be a motte with attached bailey of late Saxon to Norman date. At Domesday Coldred was possessed by Odo, Bishop of Bayeax. Odo was later disgraced and his possessions confiscated and Coldred (like three other of Odo's holdings) did not undergo later developments in stone. There is little documentary evidence relating to Coldred, perhaps because of its relatively short life, but the site is likely to have contained a range of residential buildings as well as a church. The site has produced much Roman and Saxon material and there have been suggestions that it is an enclosure originally of eighth century or possibly Roman date. The dedication of the church at Coldred to St. Pancras may suggest Saxon origins.

Town Walls

3.175 There are five walled towns within Kent, of which two (Dover and Sandwich) fall within Dover District. Sandwich has a well preserved and largely intact defensive circuit, whereas the walls at Dover are now entirely demolished and are known only from

5

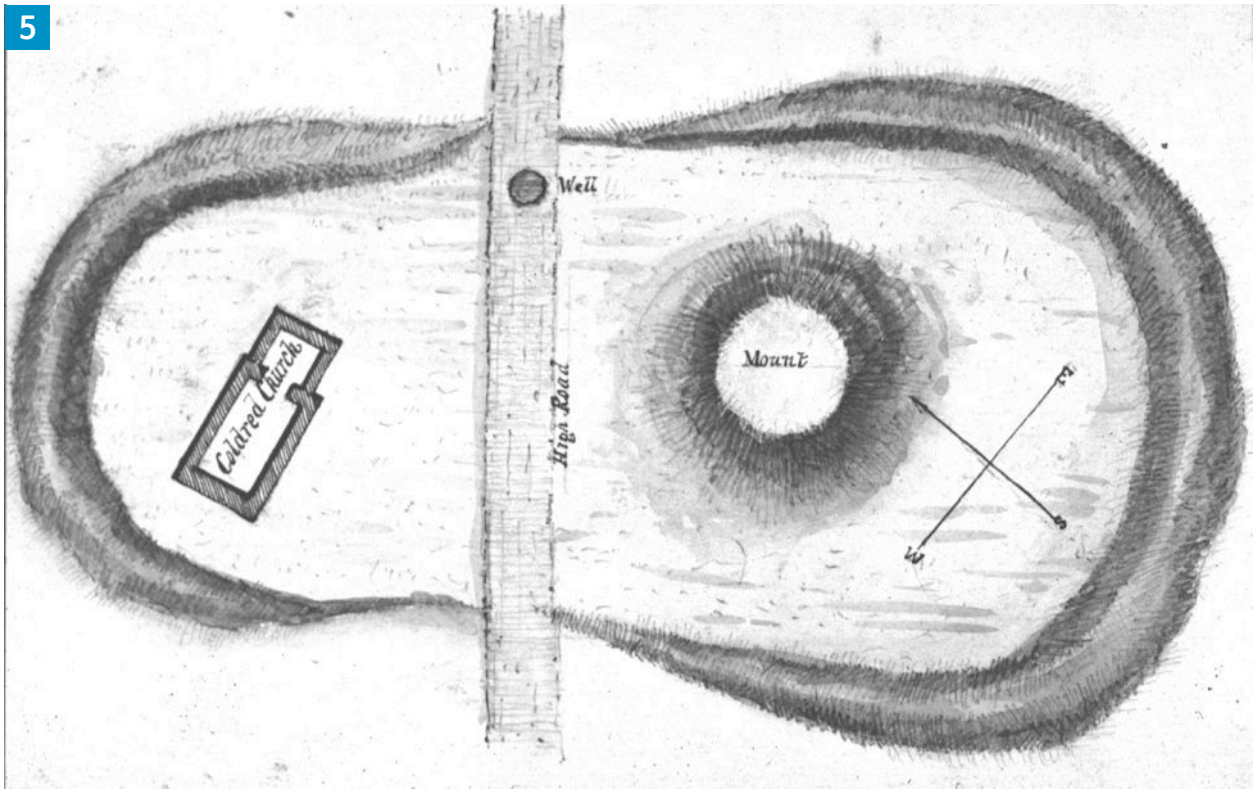
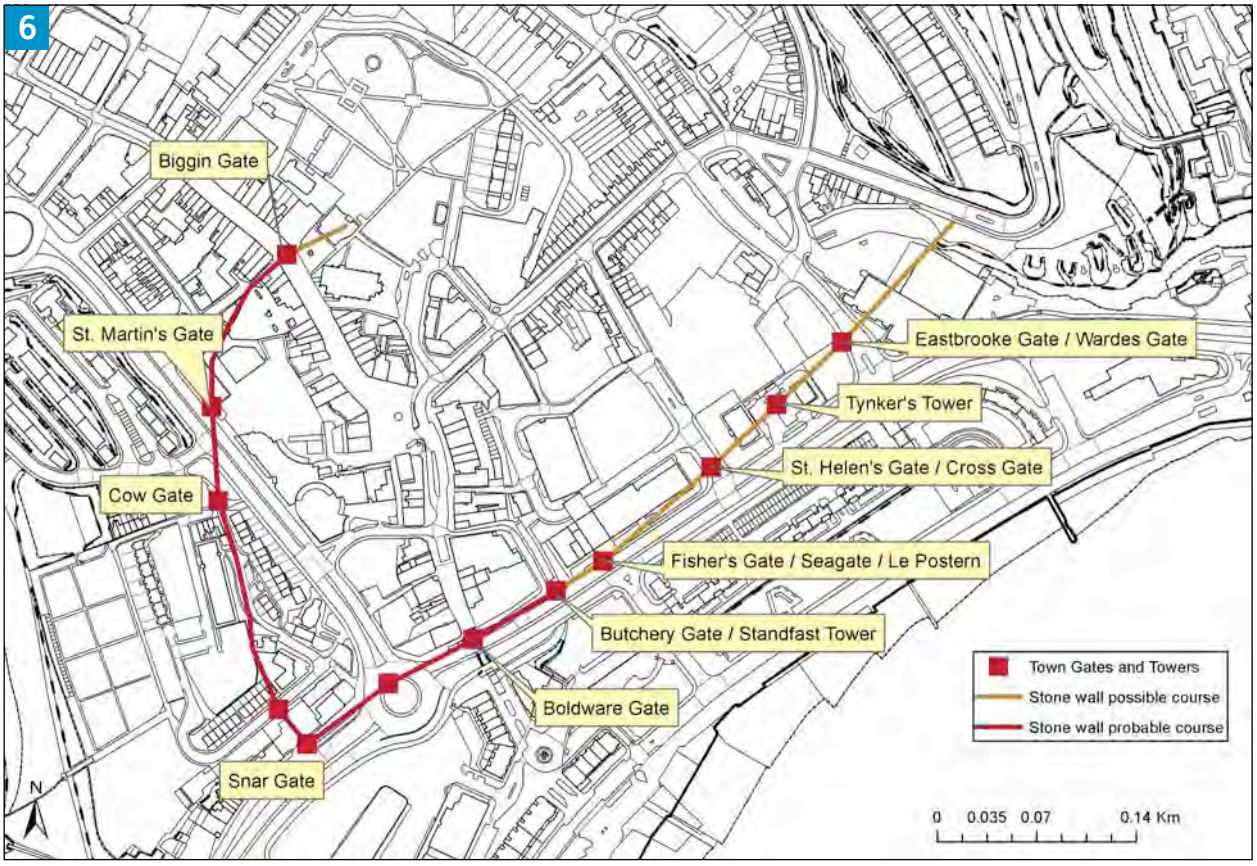


Figure 5 Antiquarian plan of Coldred Castle. © Dover Museum (d06486)



documentary and archaeological evidence.

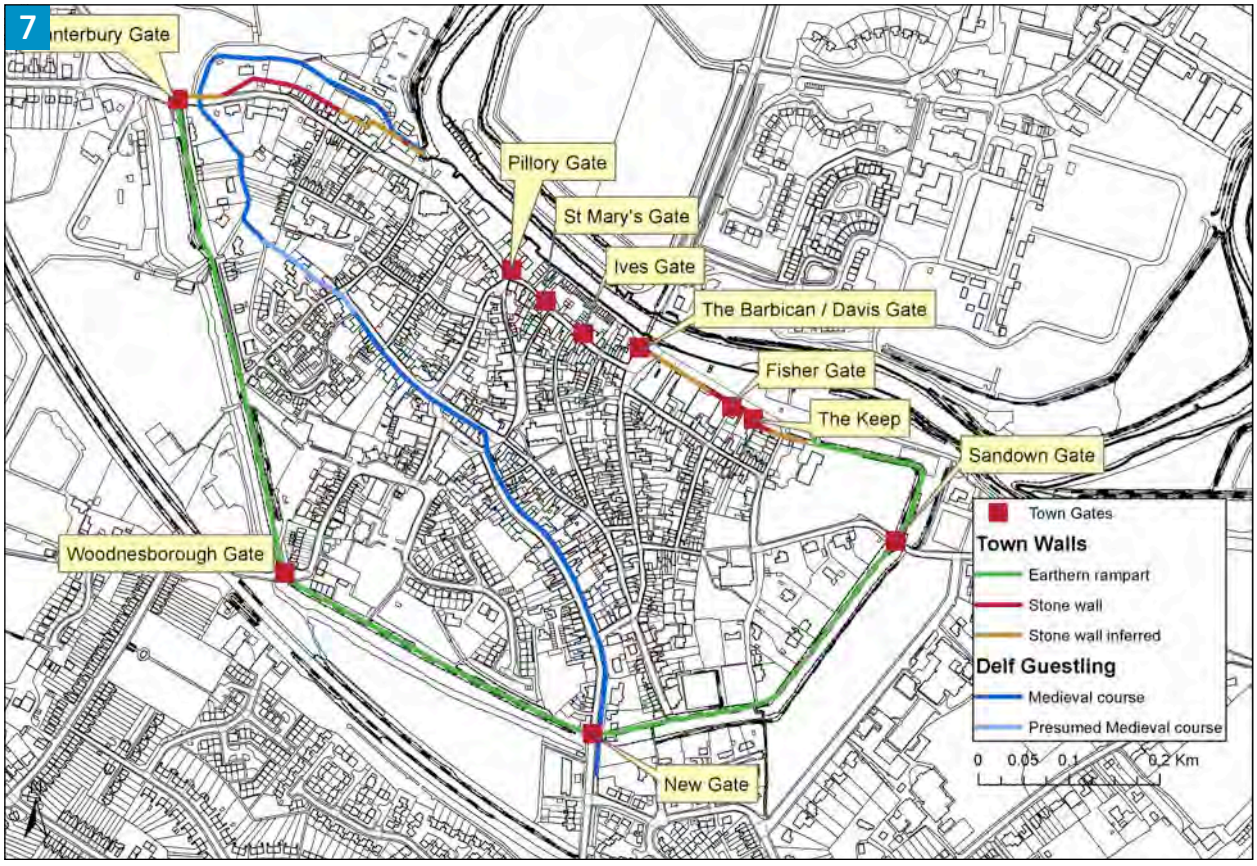
3.176 The need to protect the town of **Dover** arises from its position on the coast, in a location vulnerable to attack by sea and also because of the town's importance to the defence of the realm, being the embarkation point at the shortest crossing of The Channel. Surprisingly, despite the presence of an important Royal Castle and given Dover's strategic location on the Channel Coast, there is still a lot that we don't know about the fortifications around the town. The exact date of the construction of the first town wall at Dover is uncertain, as is the precise extent of the circuit.

3.177 The earliest reference to town walls at Dover comes from a charter of 1231, which suggests there was some sort of town wall by this date. Whatever the form of this early town wall it was unable to adequately defend the town when a large French force attacked in 1295. In this raid a number of properties were set alight and the priory sacked. Following the French attack it is likely that the town's walls would have required substantial rebuilding and in 1324 the town petitioned the crown for murage (a tax levied for the construction or maintenance of town walls). Accounts from the fourteenth century to the end of the fifteenth century show continuing (and often heavy) investment in work and repairs to the town's defences.

3.178 The town's defences were probably at their greatest extent in the fifteenth century, but even at this date it is uncertain whether the walls ever entirely encircled the town. By the sixteenth century the walls had started to fall into disrepair, with Leyland, writing in the 1530s, describing them as being '*partly fawlen downe and broken*'.

3.179 The town of **Sandwich** was an important medieval town and port, and for much of the medieval period probably had a greater population than Dover. As with Dover the precise date of the construction of the town's walls is uncertain. Sandwich's earliest

Figure 6 *Dover Town Walls and Gates*



defences appear to have been temporary in nature, perhaps erected in response to specific threats. There are records of a timber defence when the town was besieged in the 1260s and again in 1275 when the mayor of the town is purported to have erected ditches, barbicans and other fortifications.

3.180 From documentary sources it would seem that permanent defences at Sandwich were erected at a relatively late date sometime in the fourteenth century. The first grants of murage are recorded in 1321, although this first grant need not necessarily mark the construction date of the walls. Murage grants throughout the fourteenth and fifteenth centuries show the importance placed on the defence of the defence of the town.

3.181 The defences of Sandwich took the form of earthen banks on three sides, with a stone-built wall on the fourth along the river frontage. The first documentary mention of the use of stone walls comes from 1386. The town's defences were modified in the mid fifteenth century when an artillery fortification, initially made of timber and earth, was erected in the north-east corner of the town. Known as the Bulwark, it would seem to have originally formed a gun platform, but by the 1460s had been modified and roofed. By the 1480s the Bulwark had developed into a two-storey structure used as a place of arms, where artillery was stored alongside smaller hand weapons. The Bulwark continued to be defended and repaired throughout the sixteenth century.

Figure 7 Sandwich Town Walls and Gates

Description of the Heritage Assets

Castles

3.182 **Dover Castle** has rightly been described as '*the quintessential English Castle*'. It's location on high ground dominates the approaches to the town by both land and sea. Dover Castle is the District's best-known heritage asset. It is an English Heritage

8

guardian site and is one of the country's leading heritage visitor attractions. It is the second-most visited English Heritage site in the country and following a recent programme of improvements is an English Heritage flagship site for new approaches to heritage presentation and promotion.

3.183 Dover Castle is protected under a number of heritage designations. It is a Scheduled Monument, a Grade I Listed Building and falls within the Dover (Dover Castle) Conservation Area.

3.184 No standing remains can be visible at either the potential **Mary-le-Bone Hill** motte and bailey site or at **Castlemead**. The Mary-le-Bone Hill site lies on agricultural land and is not presently accessible to the public. The Castlemead site on the eastern side of the town is partially agricultural land (Castle Field) and is partially developed with private housing and Sir Roger Manwood's School. A substantial tower is marked on the 25 inch Ordnance Survey Map of 1872 as '*The King's Castle (remains of)*', for which buried foundations might survive along with other archaeological remains.

3.185 **Coldred Castle** is an impressive, although somewhat mutilated earthwork. The site is bisected by a modern road, with the motte area lying to the north-west of the road and the bailey to the south-east. Parts of the rampart circuit have been disturbed by more recent medieval buildings as well as later quarrying activity. The church of St Pancras located in the northern corner of the site is of considered to be of eleventh century or perhaps Saxon date and would have been contemporary with the castle. The motte and bailey at Coldred is designated as a Scheduled Monument and the Church of St Pancras is a Grade I Listed Building. With the exception of St Pancras Church the site is privately owned and not publicly accessible.

Town Walls

3.186 There are no remains associated with the town walls of **Dover** surviving above ground and all of our evidence and information relating to them comes from archaeological investigations and documentary sources. The names of some of Dover's streets, such as Cowgate Hill, Snargate Street and Townwall Street, give us some clues of the route of the town's walls. This information together with historic maps and the findings of archaeological investigations means that we can trace the wall circuit of Dover with some certainty on the south-eastern and south-western sides of the town, but to the north and particularly to the north-east the alignment is unknown.

3.187 Archaeological investigations on the seawall side of the circuit have revealed buried remains of a wall some two to three meters thick at the base, with a neatly coursed greensand-block outer face, rubble core and roughly coursed flint and greensand inner face.

3.188 The town defensive circuit at **Sandwich** is one of the most complete of any medieval town in the country. At Sandwich the town's defensive circuit comprises an earthen bank on three sides, with a partially surviving stone wall along the river frontage. None of the gates through the earthen ramparts survive, although the alignments of some modern streets mark their locations. Two gates survive along the section of stone-built wall fronting the River Stour, the oldest

Figure 8 View of Constables Gate, Dover Castle by William Burgess, 1847. © Dover Museum (d00471)

9

being Fisher Gate and the other being Davis Gate (or the Barbican).

3.189 Fisher Gate consists of a rectangular tower built of flint and stone and is likely to be of late fourteenth century date. Davis Gate is the later in date, with the present structure dating to the second half of the fifteenth century. Davis Gate consists of 2 round towers, which have a base of ashlar. Above this the ground floor is chequered work of stone and flints with loop windows. Entry is via a semi-circular timber barrel roof between the towers and tiled over. The Round House (The Keep) on the quay at Sandwich is probably the remains of a boom tower.

3.190 The earthen defensive circuit, the Bulwark, sections of the stone wall fronting the River Stour and Fisher Gate are designated as a Scheduled Monument. Fisher Gate and Davis Gate (Barbican) are Listed Buildings and the town's entire defensive circuit falls within a Conservation Area. The

10

earthen ramparts are publicly accessible with a footpath running along their top. A local heritage trail and information boards provide some information. Fisher Gate and Davis Gate are privately owned but are clearly visible in prominent positions on the town's quayside. Some sections of the stonewall fronting the Stour are also publicly visible.

Statement of Significance

3.191 The District of Dover contains a number of important medieval fortifications. Dover Castle is the outstanding example, being one of the most powerful medieval castles in the country and described as the '*key to England*'. At Sandwich the town wall circuit is one of the most complete of any medieval town in England, whilst the castle at Coldred is a rare example of an early Norman fortification that did not undergo later development in stone.

3.192 The medieval fortifications within the District include examples (Dover Castle, Coldred Castle and Sandwich Town Walls) that are of **outstanding significance**.

Evidential Value

3.193 The medieval remains in the District have a particular value in demonstrating the development of Royal and civic defences through the medieval period. Buried archaeological remains at all sites could provide evidence to help inform our understanding of when the sites were first defended and show detail of construction phases which could help clarify our

Figure 9 *Fisher Gate, Sandwich*
Figure 10 *Davis Gate (Barbican) and Toll Bridge, c. 1870. © Dover Museum (d02792)*

11

understanding of how these sites developed. Dover Castle is the pre-eminent site and the fabric and design of the place includes evidential information to illustrate and illuminate developments and advances in medieval fortification, whilst Coldred (having not been developed in stone) provides evidence for the nature and constructional details of early Norman earthen defensive works.

Historical Value

3.194 The medieval defensive remains have strong historical associations, often illustrating and reflecting specific historical events (such as the great siege and rebellion of the barons at Dover or the threat from coastal raiding during the Hundred Years War) as well connections with significant historical figures (such as Bishop Odo and Coldred or the succession of monarchs who have lodged at Dover). These strong historical connections help to illustrate the significance of coastal towns such as Dover and Sandwich

12

in the medieval period.

Aesthetic Value

3.195 Of the medieval defensive assets in the District the Castle at Dover probably has the strongest aesthetic value, arising from its imposing cliff-top position on the Channel Coast. Not only is the setting of the Castle dramatic, the scale and design of the fortifications add to the site's aesthetic qualities. Sandwich town defences likewise have a strong aesthetic value, with views from the defences allowing glimpses into the core of the medieval town as well as out to the surrounding countryside.

Communal Value

3.196 Sandwich town walls are publicly accessible, used for a range of recreational activities by the local community and visitors alike. A historic trail and information boards help to explain the defences to recreational users. Dover Castle is celebrated as a symbol of national pride and security and this is reflected in the number of visitors to the site. The Castle plays a key part in the town and District's identity, empowering links between the local community and their heritage. The castle's position, sitting high above the town, does mean that it is somewhat physically isolated from the town and there is potential to improve connections between the two.

Figure 11 *Historic fabric of the 'Round House' which carried a boom across the River Stour incorporated into a later dwelling*

Figure 12 *Chequerboard design in Sandwich Town Wall*

13

Vulnerabilities

3.197 The medieval defensive remains in the District are potentially susceptible to a range of different vulnerabilities. Dover Castle as a Scheduled Monument and English Heritage guardianship site is perhaps the most secure, but requires ongoing repair and maintenance. Nevertheless care needs to taken to ensure that the setting of the Castle is not harmed should significant change be proposed in close proximity to the site. This is particularly true of any development proposals for the Connaught Barracks site immediately to the north of Dover Castle. Any future development proposals in the area should be designed to avoid harm to the setting of the Castle. The significance District's other medieval defensive remains and their settings should likewise be protected and where possible opportunity should be sought to remove any features that are intrusive and harm the setting of these monuments.

3.198 The earthworks at Coldred Castle are potentially vulnerable to erosion and decay as well as being susceptible to damage from uncontrolled vegetation growth, root damage and animal burrows. As well as the above ground earthworks at Coldred Castle there are likely to be significant buried remains present. Such buried remains would similarly be at risk to damage from root damage and animal disturbance.

3.199 The remains of Dover's town walls and the Sandwich's Castles are not designated and are therefore at most risk from physical damage from development. These remains would be vulnerable to even small-scale development, which should therefore be accompanied by an appropriate level of archaeological investigation.

Opportunities

3.200 Further archaeological research and investigation will help to provide more information on the nature, extent and location of archaeological remains – particularly those associated with the non-designated elements of the District's medieval

Figure 13 Dover Castle overlooking the town. © Explore Kent

defensive heritage. Appropriate archaeological mitigation in connection with developments could provide useful information to help us understand these fortifications.

3.201 Dover Castle is the major tourist attraction in the District, bringing numerous visitors to the town. Tourism is likely to remain a major component of Dover's economic future and there is considerable potential for this to increase. Improved connections between the Castle, town and the wider District would help to bring about sustainable economic benefits. Emphasis should be given to promoting Dover Castle as a piece in a network of heritage sites in the District, rather than as an individual destination. There is also good potential for Dover Castle to develop its role in the social and communal life of the District through activities, events and local involvement in its care.

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The National Heritage List for England available at http://list.english-heritage.org.uk

Figure 14 View of Dover Castle on the footpath approach from South Foreland. © Explore Kent

Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Dover Castle	Historic Building, Earthworks and Buried Archaeology	Scheduled Monument, Listed Building and Conservation Area	Managed visitor attraction	English Heritage site
Mary-le-Bone Hill, Sandwich '?motte and bailey castle'	Buried Archaeology	None	Private agricultural land	No
Sandwich Castle (Castlemead)	Buried Archaeology	Conservation Area (part)	Private agricultural & developed land	No
Coldred Castle	Historic Building, Earthworks and Buried Archaeology	Scheduled Monument and Listed Building	Private land and church	No
Dover Town Walls	Buried Archaeology	None	Largely private developed land	No
Sandwich Town Walls (earthen ramparts)	Earthworks and Buried Archaeology	Scheduled Monument and Conservation Area	Public open space	On-site boards
Sandwich Town Walls (stone wall)	Standing remains and Buried Archaeology	Scheduled Monument (part) and Conservation Area	Mixed – some sections are publicly visible, but largely Private land	Some on-site boards
Fisher Gate	Historic Building	Scheduled Monument, Listed Building and Conservation Area	Private ownership but publicly visible	On-site board
Davis Gate	Historic Building	Listed Building and Conservation Area	Dover District Council ownership but publicly visible	On-site board

Appendix 1:
Theme 3.4 – The Castles of the Downs

Cover *Deal Castle*

Figure 1 *The Castles of the Downs, Bulwark Forts and Defensive Fosse at Deal, Sandown and Walmer*

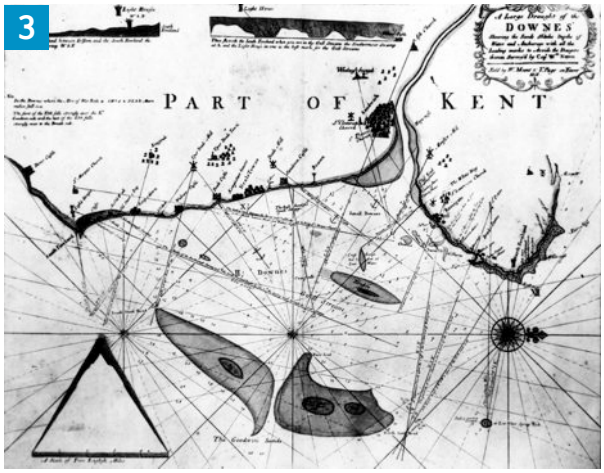
Theme 3.4 – The Castles of the Downs: The Henrician Device Forts in Deal and Walmer

Summary

3.202 The three Castles of Deal, Walmer and Sandown form an outstanding group of Henrician defensive works. Deal Castle at the centre of the line is rightly known as the 'Great Castle' and is the most powerful of Henry VIII's coastal fortifications. Today the castles are an important part of the local identity of the towns of Deal and Walmer and are a reminder of the strategic importance of this stretch of coastline and the naval anchorage that lies off it.

Introduction

3.203 The isolation of the Tudor King Henry VIII from the catholic kingdoms of Europe led to a very real threat of invasion by Spain, France and their allies in 1538. As a response, Henry promptly reviewed the defences of his kingdom and drew up a national defence policy which included defensive improvements commissioned through a document known as the 'Device by the King'. Britain embarked on its largest programme of defensive fortifications since Saxon times. The first Device programme started in 1539 and within two years 30 castles or forts had been built along the coast. A second Device programme was started in 1544 following renewed threat from France.



3.204 The strategy behind the forts was not to prevent a landing but to deny an enemy the use of a harbour or anchorage to sustain its invasion. Forts were carefully sited to provide artillery coverage of the harbour or anchorage and in cases a series of forts provided supporting coverage.

3.205 The principal grouping of fortresses built under the 1539 device programme were the three 'Castles of the Downs', Deal, Walmer and Sandown built to protect the strategically important anchorage known as The Downs, a four mile length of sheltered water within the Goodwin Sands. The defensive line spread along the coast between Walmer in the south and Sandown in the north, a distance of over 4km.

Figure 2 *Walmer Castle*

Figure 3 *Chart showing the Downs and Goodwin Sands with landmarks including the castles. © Dover Museum (d34988)*

3.206 At the centre of the line was the most powerful of all the Device fortifications, Deal Castle or 'the Great Castle'. Deal Castle consisted of a large circular central tower surrounded by a ring of six smaller rounded bastions and a further outer ring of six larger bastions. These were surrounded by a wide, deep and stone-revetted moat. At either end of the defensive line were two smaller castles, Walmer Castle and Sandown Castle, identical in size and each with a four bastion plan.

3.207 The three castles were linked by a defensive fosse (ditch and bank entrenchment) with four circular earth built bulwark forts at regular intervals. From north to south the bulwarks were known as the Great Turf Bulwark, the Little Turf Bulwark, the Great White Bulwark and Walmer Bulwark.

3.208 Although they were built primarily as a response to the threat of invasion during Henry's reign, the castles proved to be strategically important during the English Civil War, Napoleonic wars and later in the nineteenth century. During the English Civil War the three castles were besieged. This was the only time the castles saw action; Walmer fell within a month (in July 1648), but Deal and Sandown held out until 25 August and 5 September 1648 respectively. As well as besieging Deal, Sandown and Walmer castles the Parliamentarian forces, under the command of Colonel Rich, also fought with Royalist re-enforcements on the Sandhills.

Description of the Heritage Assets

3.209 Deal Castle and Walmer Castle are the principal surviving heritage assets. **Deal Castle** is largely unaltered from its original form and is protected as a Scheduled Monument within the Deal Middle Street Conservation Area. The castle is managed by English Heritage and is open to the public. **Walmer Castle** retains much of its original form but has been developed into a residence for the Lord Warden of the Cinque Ports. The area of the castle is protected as a Scheduled Monument. With its adjacent formal gardens, established by the Lord Warden, the castle is open to the public and managed by English Heritage.

3.210 **Sandown Castle** is ruinous. Foundations of the landward part of the castle survive and are visible in a public open area with an accompanying interpretation board. These remains are protected as a Scheduled Monument. The Scheduled

Figure 4 *Deal Castle, artillery fort. © Explore Kent*
Figure 5 *Walmer Castle - Lord Warden's Gardens*
Figure 6 *Sandown Castle in ruins on the foreshore. © Dover Museum (d33197)*

Monument does not include the full circuit of the fort and its encircling moat.

3.211 The **bulwark forts** and the **connecting fosse** survived until at least the eighteenth century when they were drawn by the antiquarian William Stukely in 1725. Today no traces of these fortifications survive above ground level though there is potential for below ground remains and in particular any ditch works. The location of the forts and the fosse has not been fully established, but features depicted on the First Edition Ordnance Survey map support an assumed spacing of approximately 700 m. between the forts as shown on the accompanying map in this report. The Great Turf Bulwark was sited on the slightly elevated land around Sandown Terrace and Albion Road; the Little Turf Bulwark around the Royal Hotel at the north end of Beach Street; Great White Bulwark on Walmer Green close to the Royal Marine South Barracks and Walmer Bulwark under Guilford Court where Kingsdown Road curves outward. The fosse line has been located using a best fit of early boundaries and examination of the Stukely and other illustrations.

Statement of Significance

3.212 The 'Castles of the Downs' are an important grouping of fortifications of Henry VIII's 1539 Device programme, the largest programme of defensive fortifications since Saxon times. Deal Castle, known as 'The Great Castle' was the most powerful of all the defences built by Henry. The 'Castles of the Downs' are of **outstanding significance**. Further detail on the values and significance of both Deal Castle and Walmer Castle can be found in the English Heritage documents referenced in this paper.

Evidential Value

3.213 Archaeological investigation of the buried remains of the fosse and bulwark forts

Figure 7 Deal Castle ditch and bastions

may reveal new information that will further our understanding of the defences and their use.

3.214 Deal Castle in its fabric and archaeological resource, together with the considerable quantity of illustrative and documentary sources available, has considerable potential to provide additional evidence of the fort's original construction, later adaption and remodelling and the people who lived, worked and fought in it.

Historical Illustrative Value

3.215 Of the three castles, two remain in near complete form while there are ruinous remains of Sandown. Deal Castle in particular has value in demonstrating the development and design of Tudor artillery defences. The location and outlook of the forts on to the Downs assist in understanding their purpose and Henry's defensive strategy and tactics.

3.216 Deal Castle's location and setting, retaining its original relationship and visual link with the sea. The ability to perceive its position above the pebble beach and the long views between it and Walmer Castle are of a major value to understanding the purpose of the castles. The relationship of Walmer with the sea is less clear due to the build up of shingle and subsequent development of the Walmer front. The location of Deal Castle also expresses well its role in the foundation and topographical development of Deal town and its place within the wider group of local

military installations in Deal and Walmer for which it was the precedent and impetus. These include the other castles, the naval yard commemorated by the surviving Time-ball tower and the Royal Marines' barracks complexes. The survival of the Captain's Garden and paddock on the west and south have considerable value as open space close to the castle as well as their significance as part of the castle complex.

Historical Associative Value

3.217 The historical association of the castles is very strong, representing the first and most significant constructions within Henry VIII's national defence programme. They have potential to explain the historical context of the isolation from catholic Europe and the threat to the nation at that time. Further historical associations with their use during the Civil War and with the subsequent use of Walmer Castle by the Lord Wardens including a string of historically notable individuals such as Pitt, Wellington and Queen Elizabeth the Queen Mother, and Deal Castle by a series of named captains including Field Marshal Allenby are also strong. The survival of the Captain's accommodation in Deal Castle and the residence of the Lord Wardens at Walmer increase these associative values.

Aesthetic Value

3.218 The architecture of Deal and Walmer Castles is distinctive of the type of artillery fortifications being developed at that time. The open aspect of the forts with views out to sea adds to the aesthetic value and helps explain their purpose.

3.219 The physical presence of Deal Castle, sitting low and powerful above the shingle foreshore with the wide sweep of the sea beyond is a strong image. Viewpoints to and from the castle are aesthetically strong at present and have been illustrated by

Figure 8 The aesthetic qualities of Walmer Castle

numerous artists. Views out to sea, along the coast or in the more local open space are important. The open space around the Castle enables medium distance views that enhance the appreciation of the aesthetic qualities of the castle.

3.220 Walmer Castle's isolation and separation from its landscape through the imposing moat and from Walmer village by the meadow and belts of trees around its historic gardens are crucial to its character of an enclosed tranquil world. Its association with the Lord Warden's gardens further enhances the aesthetic value of Walmer Castle. Views from the castle along the coast only survive in restricted form due to the growth of belts of trees and the original view of the castle across the meadow from the north-east has been partially obscured by the planting of oaks in 1860.

3.221 The loss of the bulwarks and fosse line reduces the coherence of the fortifications as a single entity.

Communal Value

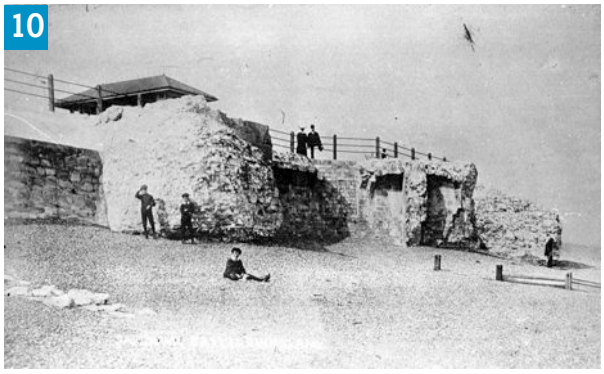
3.222 The three castles are publically accessible, Deal and Walmer as visitor attractions and Sandown as a ruinous site in public open space. Interpretation is available at each of the sites. There is some potential for further interpretation at the sites of the fosse line and bulwark forts.

3.223 Deal Castle, being a primary reason for the development of Deal town and a prominent local monument has considerable meaning for the people of the town. Its prominent and highly visible presence at a central location in the town has meant that the castle has acted as a focal point for communal events and activities though less today than it once did.

Vulnerabilities

3.224 The settings of the artillery castles are an issue requiring careful thought especially where significant change is proposed in proximity. For these artillery forts, deliberate fields of fire were created and maintaining the open space around them has considerable historical and aesthetic significance. The open space around Deal Castle may come under development pressure in the future and any development proposals in the area should be resisted if they harm the open setting of the castle.

3.225 Coastal erosion has already had a significant impact on Sandown Castle and



future damage from the sea at Sandown and Deal Castles is possible. Construction of sea defences in the future may have an impact on the setting of these castles. Deal Castle presently suffers from flooding in its lower levels.

3.226 The earthworks and bulwark forts that connected the castles are likely to survive as archaeological remains despite the existing recent development with occasional areas of open space. These remains will be vulnerable to even small-scale development, which should be accompanied by an appropriate level of archaeological investigation.

Opportunities

3.227 Further archaeological research and investigation will help to clarify the location of the bulwark forts and the connecting earthworks. Monitoring of even small scale development such as extensions could provide useful information to help us understand these fortifications and pin down their location.

3.228 Increasing knowledge of the bulwark forts and their connecting earthworks will help to develop a strategy for the preservation of the most significant remains and enhance interpretation. Consideration should be given to maintaining those present topographic features which suggest the presence of the fortifications and when locations are confirmed ensuring that future development layout respects the features.

Figure 9 *Deal Castle sits low and imposing above the shingle*
Figure 10 *Sandown Castle pictured incorporated into the sea defences. © Dover Museum (d20880)*

3.229 Interpretation should focus on developing an appreciation of the Castles of the Downs as a single entity rather than three separate castles. This could be enhanced further through the development of a combined interpretation with the associated military features in and around Deal and Walmer.

3.230 There is good potential for Deal Castle to develop its role in the social and communal life of the town through activities, events and local involvement in its care and development.

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Sandown Castle – Pastscape Record available at http://www.pastscape.org/hob.aspx?hob_id=468373

The National Heritage List for England available at http://list.english-heritage.org.uk

Figure 11 *Entrance to Deal Castle*

Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Deal Castle	Historic Building	Scheduled Monument, Conservation Area	Managed visitor attraction	English Heritage site
Walmer Castle	Historic Building	Scheduled Monument, Registered Historic Park and Garden	Managed visitor attraction	English Heritage site
Sandown Castle	Historic Building - ruinous	Scheduled Monument (part)	Public open space	On-site board
The Great Turf Bulwark	Buried Archaeology	None	Private developed land	No
Little Turf Bulwark	Buried Archaeology	Conservation Area	Private developed land	No
Great White Bulwark	Buried Archaeology	Conservation Area	Public open space (part)	No
Walmer Bulwark	Buried Archaeology	None	Private developed land	No
Fosse Line	Buried Archaeology	Conservation Area (part)	Private developed land and part open space	No

Appendix 1:
Theme 3.5 – Post Medieval Defences

Theme 3.5 – Post Medieval Defences

Summary

3.231 Dover contains a number of historically significant fortifications of post-medieval date. These include the spectacular and powerful fortifications at the Western Heights, which are the largest, most elaborate and most impressive surviving example of nineteenth century fortification in England. The post-medieval defences in Dover District form a group of sites of outstanding importance.

Introduction

3.232 The major Henrician 'Castles of the Downs' at Walmer, Deal and Sandown have been discussed in detail in Theme 3.4 of the Dover Heritage Strategy. These castles formed part of a chain of defences erected along the Channel Coast and as part of these works Henry VIII also enhanced the fortifications of the port and town of Dover. Works of the Tudor period were undertaken at Dover Castle and new fortifications constructed at Mote's Bulwark and Archcliffe Fort.

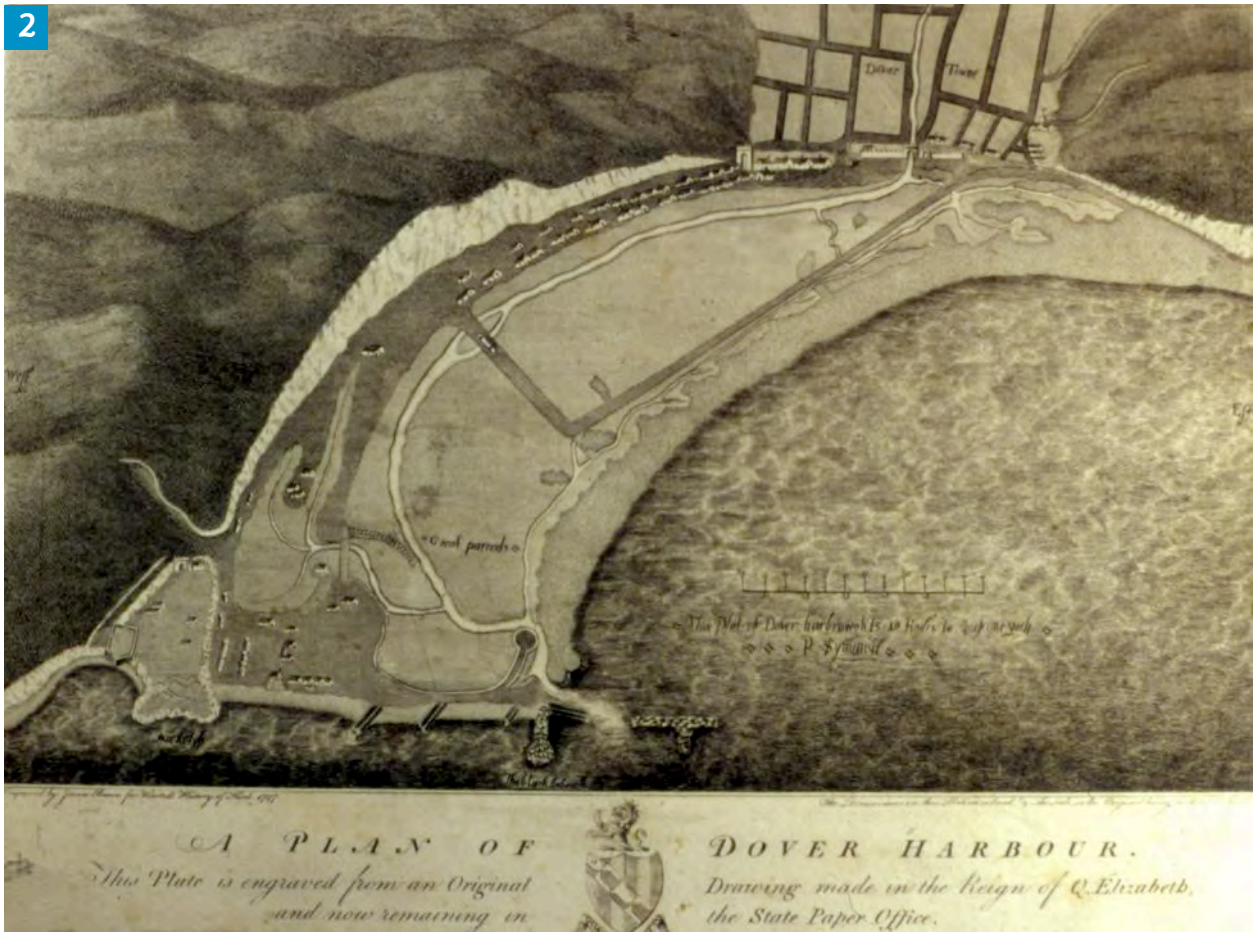
3.233 The works of Henry VIII mark a change in military thinking and it is the rise and power of artillery that influenced fortification design in the following centuries. It is from the early sixteenth century that land guns could be used as an effective counter to enemy ships at long range and the defences at Dover evolved to meet this threat.

3.234 In the Elizabethan period the defence of the realm was concentrated on naval power and new fortifications of this period are generally rare across the south of England. That being said the threat of invasion arising from worsening relations with Spain led to some re-fortification works and temporary fortifications at Dover.

3.235 The years following the failure of the Spanish Armada were one of relative peace and little new fortification work was carried out. Archcliffe Fort on the western side of Dover is a rare example of seventeenth century defensive works. With a reduced threat of invasion from the continent, it is instead civil unrest and the English Civil War (1642 – 1648) that dominated the middle of

Cover *Aerial view of Dover Castle whose defences were improved in the post medieval period. © English Heritage*

Figure 1 *Embarkation of King Henry VIII in 1520 showing the defences of the Wyke. © Dover Museum (d00690)*



the seventeenth century.

3.236 In the eighteenth and nineteenth centuries the threat from the continent again comes to the fore. It is in this period, and particularly in response to the Seven Years War (1756 – 1763), the American War of Independence (1775 – 1783) and especially the Napoleonic Wars (1803 – 1815), that a massive programme of fortification is undertaken at an unprecedented scale and pace including works at the Western Heights on the opposite flank of the Dour Valley from Dover Castle.

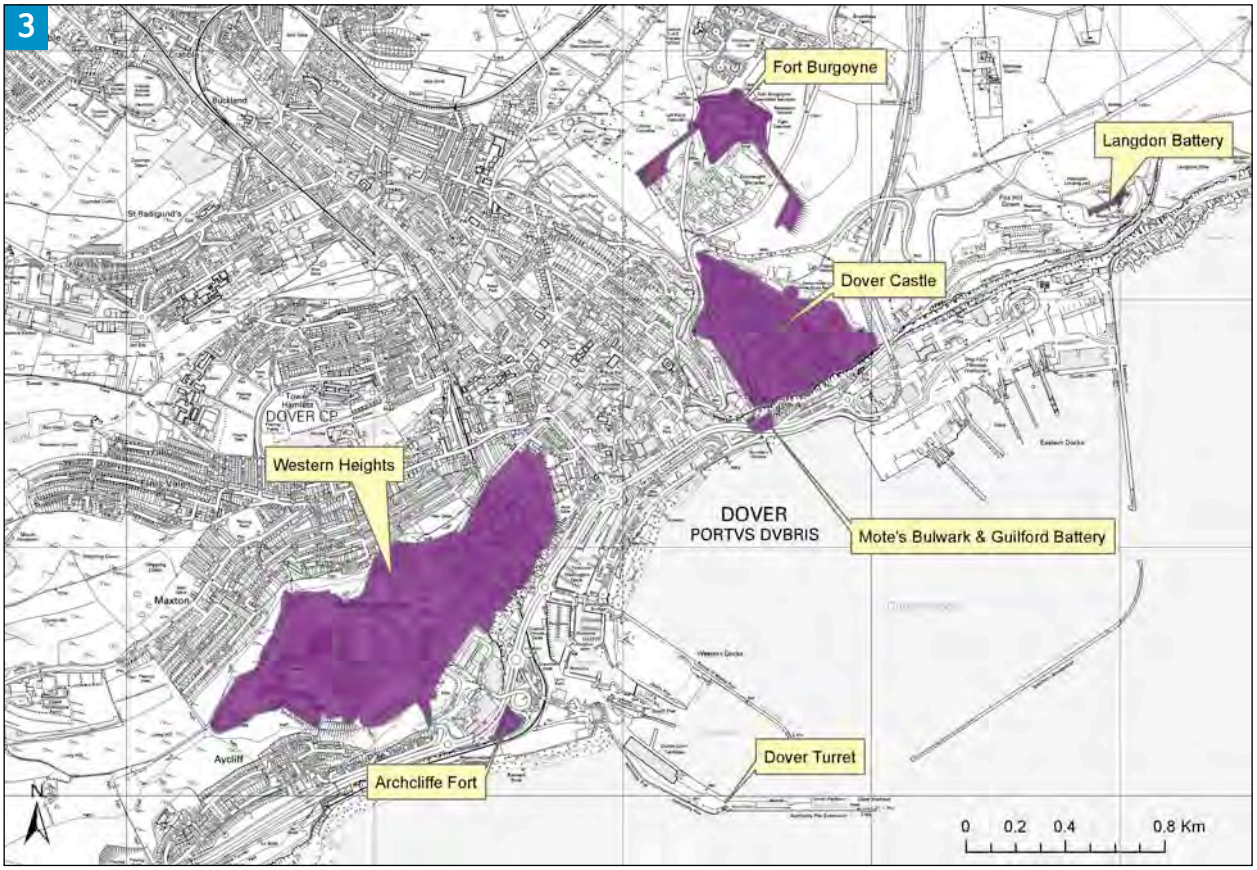
3.237 Victory over Napoleon did not give respite for long and invasion panic again prompted further defence works in the middle of the nineteenth century. In the mid-nineteenth century rapid advances in naval and artillery technology meant that many existing fortifications were outdated and a Royal Commission was set up in 1859 to address the nations defence requirements. Following the report of the Royal Commission the fortifications at the Western Heights were completed and enhanced. A new fort was also built on the eastern side of the town at Fort Burgoyne. Later, following the adoption of breech loading weapons, the gun emplacements at Dover were again improved and new outworks built at Western Heights (Citadel Battery) and to the east of Dover Castle at Langdon.

Description of the Heritage Assets

Dover Town and Harbour defences

3.238 In the post-medieval period, and particularly from the 1740s onwards, the majority of defences in the District (with the exception of the previously discussed 'Castles of the Downs') are concentrated on the protection of the town of Dover and its harbour. The key post-medieval defensive heritage assets in the town are discussed

Figure 2 Elizabethan plan of Dover Harbour works showing Archcliffe and the Black Bulwark on the Pier. © Dover Museum (d00368)



below.

Defences of the Wyke

3.239 In 1495 a tower was built to provide protection at the Wyke (the beach between Archcliffe pool and the Town) a second similar tower was added in 1518. The **Defences of the Wyke** are depicted on the painting showing Henry's departure to France for the Field of the Cloth of Gold conference in the Royal Collection.

Tudor Bulwarks

3.240 Henry VIII built four **coastal bulwarks** at Dover as part of the network of coastal defence works built between 1539 and 1540. The bulwarks were positioned close to sea level to provide maximum protection to the town and harbour from seaborne attack. The bulwarks were, from east to west, **Mote's Bulwark**, the **Black Bulwark in the Cliff**, the Black Bulwark on the Pier and **Archcliffe Bulwark**.

3.241 **Mote's Bulwark** was constructed at the foot of the cliffs beneath Dover Castle. An illustration of 1541 depicts the Bulwark as a gun platform with seaward facing gun ports and a substantial timber building to the rear. The Bulwark continued to be maintained and updated in the sixteenth and seventeenth centuries and the stone gatehouse which is located on the eastern side of the Bulwark is understood to be of sixteenth century date. In the eighteenth century a large semi-circular battery was added. By the end of the Napoleonic Wars the effectiveness of the battery against attack had been largely nullified with guns able to fire shells over

Figure 3 Extant post medieval defences in and around Dover
Figure 4 Motes Bulwark. © Dover Museum (d01820)

much greater distances. Mote's Bulwark forms part of the Dover Castle Scheduled Monument.

3.242 **Archcliffe Bulwark**, on the western side of Dover Harbour, was fortified as part of the network of coastal defence works undertaken by Henry VIII in 1539 and 1540. Here Henry constructed a bulwark, the early layout of which is complex and contemporary with Mote's Bulwark. Later historical maps show a bastion, linked by a ditch to a gatehouse. There are no visible remains of Henry's Bulwark, the site having been removed to make way for the railway and the remainder of the fort subsequently rebuilt and re-fortified. The later fort which was constructed on the site of the Tudor Bulwark is discussed separately below.

3.243 The **Black Bulwark in the Cliffe** was located close to the base of the cliffs on the western side of the town in the vicinity of modern Snargate Street. Nothing survives of this bulwark above ground and its exact location is not known. The **Black Bulwark on the Pier** was located on The King's Pier and no surviving remains of this Bulwark are known; it is likely that the Bulwark on the Pier has been totally lost to a combination of the sea and modern harbour works.

Defences at the Castle

3.244 Henry VIII largely ignored **Dover Castle** in his programme of fortification. To help defend the harbour new works were constructed at Mote's Bulwark below the Castle and at Archcliffe on the western side of the town. Henry did undertake some works at the Castle and the **Tudor Bulwark** may have been part of these works. Money continued to be spent on repairs and minor works at the castle in Stuart/Elizabethan times but no major additions were made to the defences.

3.245 During the English Civil War the garrison at the Castle was quickly overwhelmed in the Kent Insurrection of 1648, with the Castle sustaining little damage. In the late seventeenth and early eighteenth centuries the Castle was largely abandoned with only small sums spent on its maintenance, although it was seen fit to act as a prison.

3.246 The Castle's fortunes improved in the eighteenth century as the need to protect the harbour and town from foreign invasion once again came to the fore. Fortifications were strengthened and repaired and new accommodation was prepared (such as the **Keep Yard Barracks**) in order to

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Figure 5 *Nineteenth century lithograph of the seizure of Dover Castle in 1642. The illustration shows Constables Gate which was built by Henry III. © Dover Museum (d00471)*

Figure 6 *Keep Yard Barracks, Dover Castle. © Ben Found*

garrison a large number of troops. Changes were made to accommodate new heavy artillery and two new batteries were constructed in 1756. To accommodate the new guns many of the medieval wall towers were reduced in height.

3.247 In the late eighteenth century and early nineteenth century large sums of money were spent on the fortification of Dover, most notably at the Western Heights on the opposite flank of the Dour Valley from the Castle. Dover Castle was not ignored however and the outer defences were improved and modernised (such as **Horseshoe-**, Hudson's-, **East Arrow-**, East Demi- and **Constable's- Bastions**). Part of the medieval curtain wall was demolished as part of these works and a new gate, **Canon's Gate**, was added. New magazines (including the **Long Gun Magazine**) were also constructed to service the upgraded fortifications. The sheer number of additional troops housed at the Castle led to new **underground tunnels and barracks** being excavated under the castle for soldiers (constructed in 1797) and for officers (1798).

3.248 The Castle continued to be an important site for the accommodation of troops in the nineteenth century, although numbers were briefly reduced in the period immediately following the end of the Napoleonic Wars. A Royal Commission Report of 1861 looked at improving the living conditions of the common soldier and changes to the accommodation at the castle were made as a result of the Commission's findings. Major new buildings of this date at the Castle include the **Officers' New Barracks** (1858) and **Regimental Institute** (1868). The ruined church of St Mary-in-Castro was also restored at this time. Along with changes to the accommodation, improvements were also made to the defences and the construction of Fort Burgoyne to the north of the Castle was a

major work of this period. Cliff-top batteries at the Castle and overlooking the harbour were also upgraded (East Demi-, **Hospital-**, **Shot Yard-**, and **Shoulder of Mutton Batteries**).

3.249 Dover Castle is an English Heritage guardianship site, attracting the second highest number of visitors to an English Heritage property (after Stonehenge). The Castle is a Scheduled Monument, a number of the buildings in the Castle complex are individually Listed and the site falls within the Dover (Dover Castle) Conservation Area.

Archcliffe Fort

3.250 Archcliffe Bulwark was rebuilt, probably sometime in the early seventeenth century, and the new fort is shown on a plan of 1604-1614. **Archcliffe Fort** featured bastions on the landward side, with a defensive circuit incorporating ditches and a curtain wall. Archcliffe Fort is a rare example of a fortification of this period and a substantial portion of the seventeenth century bastioned trace fortification survives. The Fort was modified in the eighteenth and nineteenth centuries and works of this period are also represented at the site. The seaward defences of the fort were removed when the railway line was constructed in 1928 and a Napoleonic period brick-built outwork was partially removed when the A20 was constructed. Archcliffe Fort is designated as a Scheduled Ancient Monument.

Figure 6 Officers' New Barracks, Dover Castle. © Ben Found

Eighteenth & Nineteenth Century Batteries at Dover Harbour

3.251 The threat of invasion in the eighteenth century led to the construction of new defensive works in the Harbour area. These comprised four small batteries constructed at Sea Level. These were, from east to west, **Guilford Battery** (located by Mote's Bulwark), **North's Battery** (on the spit opposite the end of Bench Street, now the area of Granville Gardens), **Amherst's Battery** (in the area that is now the Marina) and **Townsend Battery** further to the west (later the site of the former Dover Town Station). Remains of Townsend Battery and Amherst's Battery are likely to have been totally destroyed (Townsend by later development of the Station in 1844 and Amherst's by the extension of the tidal harbour in 1838). Buried remains associated with North's Battery may potentially survive in the Granville Gardens area, whilst the site of Guilford Battery now lies largely under the modern A20. Surviving remains of the Guilford Battery are understood to include the building beneath Mote's Bulwark, which appears to have at its core one of the buildings constructed in a later phase of the battery. Parts of the earthen defences also appear to survive. A plan of 1844 shows the proposed site of **New Amherst Battery**, located to the east of the earlier battery. The work is marked as 'proposed' on the 1844 plan and it is not sure if works on the battery were ever started. The battery would have been located in the area of the modern day Esplanade

The Western Heights

3.252 The first recorded permanent fortifications to be established on the Western Heights date to the late eighteenth century, erected in response to the American Wars, with the first works occurring in the late 1770s. The defences of this period comprised earthworks designed to protect

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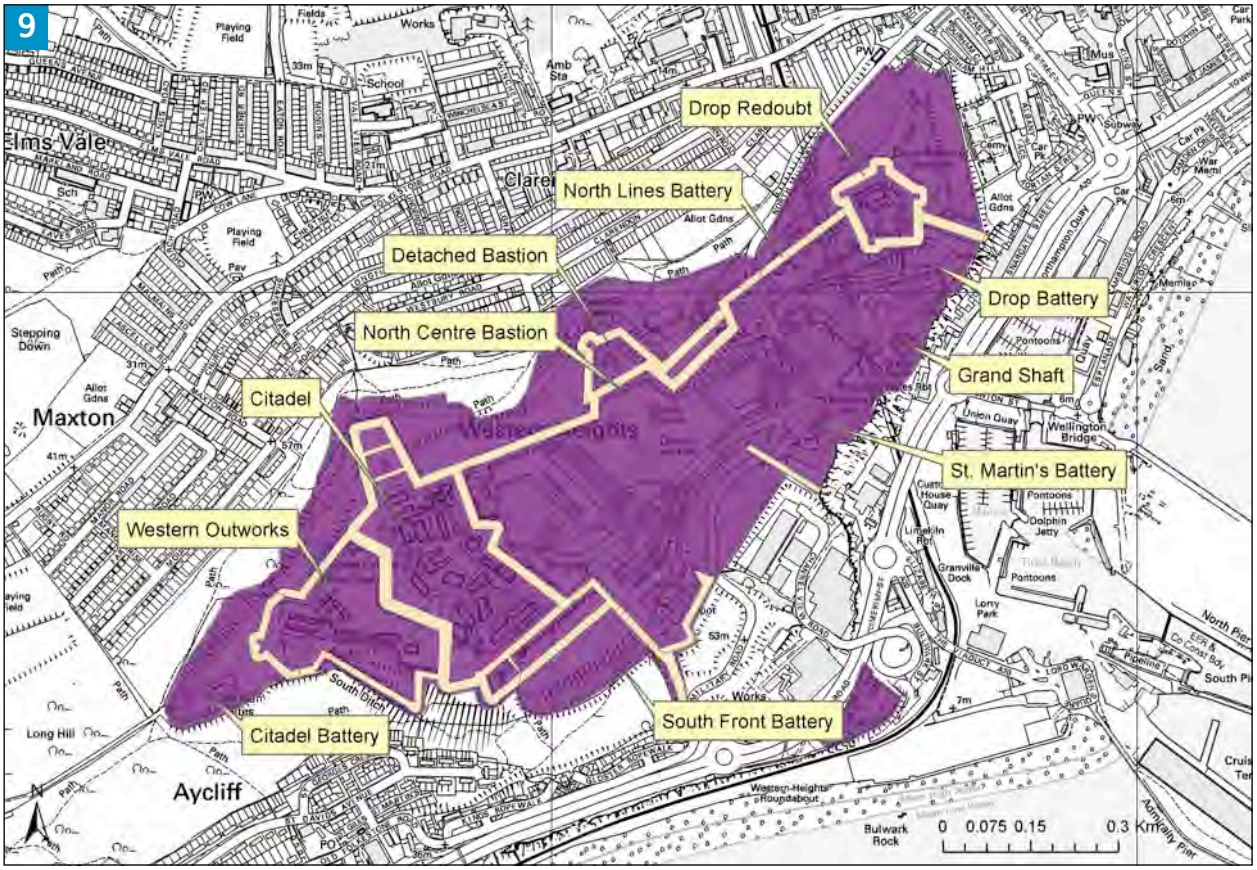
Figure 8 Entrance to Archcliffe Fort, Dover



infantry and artillery on the hill. These earthworks were unfinished and little is thought to survive from this period. These works do however mark the start of the fortification of the hilltop. In 1804 a plan was put forward to modernise the defences on the Western Heights. These new Napoleonic period fortifications took the form of two major redoubts, the **Citadel** and **Drop Redoubt**, augmented with a series of defensive lines and bastions. In this form the defences could hold a large body of men to repel any invading army as well as commanding the town, harbour and approach along the Folkestone Road. The need to move troops rapidly from the heights to the town and harbour below led to the construction of the **Grand Shaft**. Built between 1805 and 1807 the Grand Shaft takes the form of three independent staircases spiralling around a central brick built shaft. The Grand Shaft exits via a short tunnel onto Snargate Street.

3.253 Advances in military technology, coupled with a perceived threat of invasion in the mid-eighteenth century, highlighted the need to upgrade the fortifications at the Western Heights. Following the Royal Commission Report on the nation's fortifications a programme of upgrading was agreed. As a result further additions to expand and strengthen the existing Napoleonic fortifications were made, including provision of new **Western Outworks**, new barracks and a new entrance on the South Front. From 1867 advances in artillery technology led to a change in military thinking, from one focussed on fixed fortifications, to a mobile army employed in

Figure 9 *The Western Heights*

Figure 10 *Dover from Shakespeare Cliff. By J. M. W. Turner and George Cooke 1826. View of Dover from the Western Heights with the Citadel defensive ditch in the foreground and the firing range of Archcliffe Fort in background. © Dover Museum (d00006)*

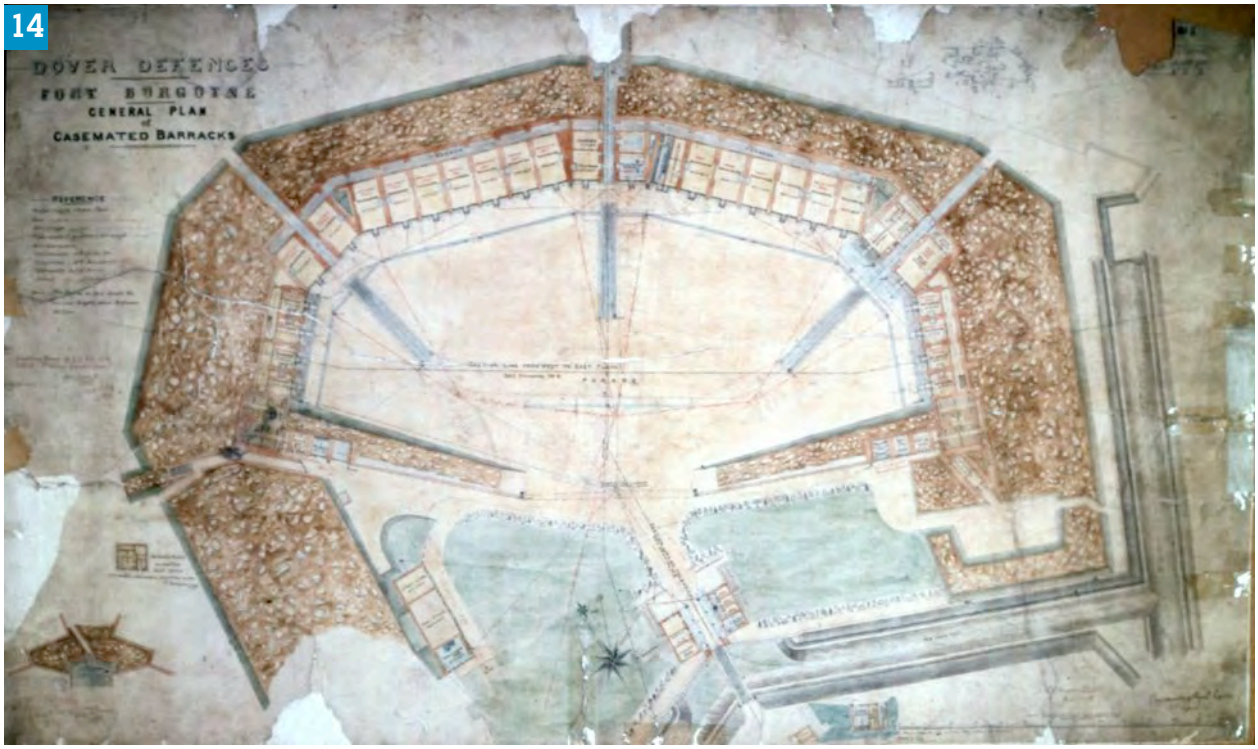
the field. The Western Heights' role evolved to one of headquarters and supply site as well as acting as a site for high power artillery. With this changing role further modifications and additions were made to the fortification in the later nineteenth century. These included four coastal batteries: the **Citadel Battery** (outside the Western Outworks), **South Front Battery** (south of the Citadel), **St Martin's Battery** (inside the South Entrance) and **North Lines Battery** (west of the Drop Redoubt).

3.254 The fortifications on the Western Heights are designated as a Scheduled Monument. The Grand Shaft Stairs is also a Grade II Listed Building. A Young Offenders Institute currently occupies the Citadel and some private housing and other development occupies the central section of the site. The eastern part of the fortification, including areas of the Drop Redoubt, is on public access land. The Grand Shaft is not open to the public except on special open-days. A series of information panels are located across the fortification to illustrate the history of the site.

Fort Burgoyne

3.255 The Royal Commission Report of 1860 on the nations defence requirements recommended improvements to the defences at Dover in order to better protect the northern approach to Dover Castle, long seen as a weak-point in the Castle's defences. Any attacking force that could establish a battery on the high ground overlooking the castle would have easily been able to bombard the Castle and its interior. As well as defending the Castle the new fort also provided long-range overlapping flanking fire to cover the north-eastern approaches to the Western Heights. Work on the fort, which was originally known as Castle Hill Fort, started in 1861 and had been completed by

Figure 11 *Aerial view of the Western Heights, with Drop Reboubt in the foreground*
Figure 12 *Overgrown ditches of the Detached Bastion. © Explore Kent*
Figure 13 *St Martin's Battery*



1873.

3.256 **Fort Burgoyne** took the form of an irregular polygon, with a large 'V' shaped earthwork facing towards the Castle. The fort featured two outlying redoubts connected by flanking 'wing' ramparts. A large dry ditch was built surrounding the fort with double caponiers providing flanking fire along the ditches. The interior of the fort was occupied by a large open parade ground with bomb proof casemated barracks surrounding the parade ground on three sides.

3.257 The physical remains of Fort Burgoyne remain largely intact, although the site is currently unused and is therefore vulnerable to neglect. The Fort and Connaught Barracks are currently owned by the Homes and Community Agency and are presently not publicly accessible. The Fort is designated as a Scheduled Monument.

Dover Turret

3.258 In the late 1870s the Admiralty decided that guns larger than those existing at Dover were needed to defend Dover Harbour and this resulted in the construction of the **Dover Turret**. The turret was constructed on what was then the end of Admiralty Pier and was armour plated, steam powered and designed to hold two massive

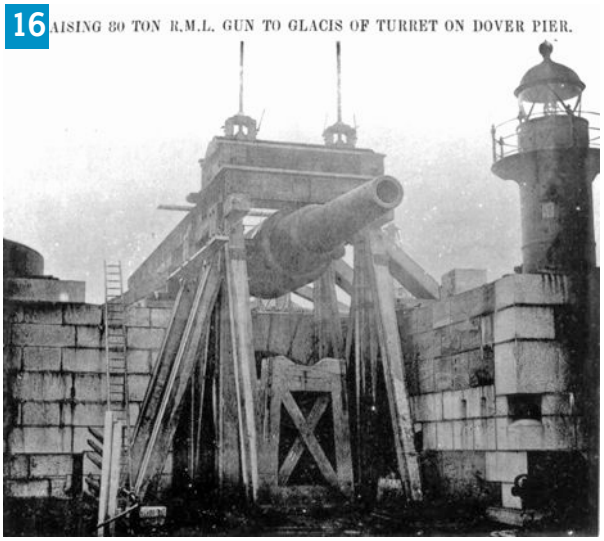


Figure 14 Plan of the casemated barracks at Fort Burgoyne. © Dover Museum (d08404)
Figure 15 Fort Burgoyne Parade Ground. © Capita
Figure 14 Raising the gun to the Dover Turret on the Admiralty Pier. © Dover Museum (d33592)

guns weighing 80 tonnes each. The turret and two guns weighed a combined weight of some 895 tonnes. The turret survives with the two guns remaining intact. The site is a Scheduled Monument, owned by Dover Harbour Board, but not currently accessible to the public.

Langdon Battery

3.259 At the beginning of the twentieth century a new battery was constructed at Langdon Cliffs to the west of the Castle. The battery was built in 1898-1900 to guard the eastern side of the harbour, complimenting Citadel Battery overlooking the western side of the harbour from the Western Heights. Langdon Battery currently owned by the Coastguard and is adjacent to publicly accessible land owned by the National Trust.

Other post-medieval defences in the wider District

Eighteenth Century Coastal Batteries

3.260 Two coastal batteries were constructed in the 1790s on the coast between Sandown and Sandwich. Known as Sandwich Battery No. 1 and Sandwich Battery No. 2 they were built to defend the adjacent beaches from landings and to protect the offshore anchorage. The batteries remained in use during the Napoleonic Wars, although a report of 1808 by Major General Twiss notes that the front wall No. 1 battery was damaged by storms in May of that year. Proposals were put forward for its rebuilding

but it is not known if this was carried out.

3.261 **Battery No. 1** was situated on the foreshore at Small Downs, to the south east of the Chequers Public House but was destroyed by the sea in 1862. A high shingle coastal defence bank now occupies the site and there are no visible remains. **No. 2 Battery** survives and its general form remains largely intact. The site is currently occupied by private residential properties (to the rear of the battery) and forms part of the gardens to these.

Statement of Significance

3.262 Dover contains one of the finest groups of post-medieval defences in the country. The continuing development of Dover Castle excellently illustrates the rapid changes in military technology in the post-medieval period, especially the rise and power of artillery. The fortifications at the Western Heights represent the largest, most elaborate and impressive surviving example of early 19th century fortification in England. As a group the post-medieval defences of Dover are of **outstanding significance**.

Evidential Value

3.263 The post-medieval remains in the District provide clear evidence for the changes and advances in military technology and thinking during a period of rapid change and advancement. Sites such as the Western Heights and Fort Burgoyne contain important structural and archaeological evidence that could improve our understanding of how the sites functioned militaristically and also

Figure 17 The two 80 tonne guns remain in situ within the turret. © Dover Museum
Figure 18 Aerial view of Sandwich Battery No 2

provide evidence for the day-to-day lives of the soldiers who manned them.

Historical Value

3.264 The post-medieval defensive remains have strong historical associations, often illustrating and reflecting specific historical events at a local and national scale. The sheer scale of the defences at the Western Heights for example clearly illustrates how significant the threat of invasion was in the Napoleonic period.

Aesthetic Value

3.265 The character and architecture of the post-medieval defences at Dover are by their nature primarily functional in nature. The scale and imposing nature of the fortifications however often provide an aesthetic quality. The sheer walls and ditches of the Drop redoubt for example can inspire feelings of awe and fear which resonate well with the original purpose of the fortifications and help visitors appreciate their defensive might.

Communal Value

3.266 The fortifications at Dover have an important social and commemorative value in reinforcing a sense of national identity, being a symbol of Dover's role as the front-line against foreign invasion.

3.267 Dover Castle is an important tourist attraction with extensive interpretation material allowing people to experience

military history from multiple periods, whilst the Western Heights provide a readily accessible area of green space close to the heart of the town for local people and visitor's to explore and enjoy.

Vulnerabilities

3.268 A large number of Dover District's post-medieval defensive heritage assets are Scheduled Monuments. Whilst this provides these monuments with statutory protection it does not mean that these remains are not vulnerable to change. Indeed the major sites of Fort Burgoyne and the Western Heights are both listed on English Heritage's *Heritage at Risk* register. The Western Heights fortifications are identified as being as one of English Heritage's top-ten priority sites of those listed in the register for the south-east.

3.269 The District's post medieval defensive assets were constructed with a specific military purpose in mind. This brings certain challenges in finding suitable

Figure 19 Imposing architecture at the Drop Redoubt, Western Heights. © Explore Kent
Figure 20 Guided tours at the Western Heights. © Explore Kent

alternative uses for such sites. For this reason a number of the sites do not have a secure long-term use, which has led to their neglect and decay.

3.270 Those post-medieval defensive heritage assets that currently do not have a long-term use (such as Fort Burgoyne, parts of the Western Heights and the Dover Turret) are vulnerable to neglect, decay, and vandalism. Without long-term maintenance and repair programmes this could lead to serious deterioration of the fabric of these assets. Lack of maintenance, uncontrolled vegetation growth, weathering and the effects of heritage crime have already had a negative effect on some on some aspects of the District's post-medieval defences. In the case of the Western Heights, the sites fragmented ownership brings with it additional challenges for securing a coherent maintenance strategy for the site.

3.271 As defensive sites the District's post-medieval defences have been carefully and deliberately sited within the landscape. Military sites therefore have their own specific setting issues. Development adjacent to these sites has the potential to negatively impact upon the setting of these heritage assets. Development that causes harm to the setting of the District's post medieval defensive heritage assets, or diminishes the ability for visitors to the site to appreciate the significance of a monument should be avoided. In the case of the Western Heights this includes not only views out from the monument, but also the internal relationships between the component parts of the place.

Opportunities

3.272 Dover District has an exceptional group of fortifications of post-medieval date, the highlight of which is undoubtedly the spectacular fortifications at the Western Heights. These fortifications form part of a patchwork of defensive remains across the District that span nearly 2000 years, from the Roman fort of the *Classis Britannica* at Dover to the radar stations of the Cold War. These assets have the potential to substantially contribute to the future well being of the District, and opportunities should be sought

Figures 21 & 22 *Inaccessible areas of the Western Heights are subject to vandalism, damage caused by forced entry and decay*

to maximise the economic and interest value of the District's defensive heritage assets.

3.273 At present the many of the District's post-medieval defensive remains are an undervalued asset. Opportunities to increase the local and wider awareness of the post-medieval defences should be sought so that these assets develop a positive and on-going local identity. Increased visibility of these sites to the local community will help to stimulate wider recognition of these assets. Encouraging recognition of the significance of the post-medieval heritage assets will help to achieve the District's long-term goals for sites such as the Western Heights and Fort Burgoyne.

3.274 The collection of post-medieval defensive heritage assets in the District presents the opportunity to create a world-class visitor and educational resource. Dover's core sites of the Castle, Western Heights and Fort Burgoyne should form the heart of such a visitor destination. Dover Castle already provides a strong focus for visitors to the District and consideration should be given to ways of using the castle to provide visitor orientation for the wider District. Physical and intellectual links should be forged between the post-medieval defensive sites to encourage as wide a range of visitors as possible.

3.275 Some development may be necessary in and around these heritage assets in order to achieve the long-term vision. Such development should be of a high quality. Development that causes harm to the significance of these sites should be avoided. As such any development should seek to be of an appropriate size and density, should be sited sensitively and should be of a high and distinctive architectural quality. Wherever possible new and sustainable uses should be found for the heritage assets to ensure their long-term viability. This should include the re-use of historic buildings in a sympathetic manner. Mixed tourism and enterprise led re-use of the District's historic fortifications should help to ensure the long-term viability of these assets.

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The Here's History Kent website available at http://hereshistorykent.org.uk

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Figure 23 Casemates at Fort Burgoyne present an opportunity for imaginative and sympathetic re-use

Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Dover Castle	Historic Building, Earthworks and Buried Archaeology	Scheduled Monument, Listed Building and Conservation Area	Managed visitor attraction	English Heritage site
Archcliffe Fort	Historic Structures, Earthworks and Buried Archaeology	Scheduled Monument	Private ownership but accessible	No
Mote's Bulwark	Historic Building, Structures, Earthworks and Buried Archaeology	Scheduled Monument	Under English Heritage Guardianship but not currently accessible to the public	No
Western Heights & Drop Redoubt	Historic Structures, Earthworks and Buried Archaeology	Scheduled Monument and Conservation Area	Under mixed ownership, parts of the site are publicly accessible	Yes
Fort Burgoyne	Historic Building, Structures, Earthworks and Buried Archaeology	Scheduled Monument	Not publicly accessible	No
Dover Turret	Historic Building	Scheduled Monument	Not publicly accessible	No
Langdon Battery	Historic Structures, Earthworks and Buried Archaeology	None	Publicly accessible	?
Sandwich Battery No. 2	Historic Structures, Earthworks and Buried Archaeology	None	Not publicly accessible	No

Appendix 1:
Theme 3.6 – The Great War

Theme 3.6 – Great War Defences and the supply of the Western Front

Summary

3.276 In the First World War Dover harbour was an important naval base and port of refuge from which the famous Dover Patrol operated. Elsewhere in the District a major supply depot, transhipment facility and port was constructed at Richborough that was involved in the manufacture, salvage and supply of equipment destined for use on the battlefields of Continental Europe. The District contains a number of important remains, including above ground structures and buried archaeology that demonstrate the importance of the District in the First World War.

Introduction

3.277 In the early twentieth century relations with France, the long-standing continental foe, improved culminating in the signing of the Anglo-French Entente of 1904. This left Germany, who had been undertaking a rapid programme of new warship building at the end of the nineteenth century, as the perceived future continental enemy and potential invader. When war came with Germany in 1914 the main defence against foreign invasion was the Royal Navy and the harbour at Dover was an important base for the control of the Channel.

3.278 The harbour at Dover had been massively extended in the early twentieth century with the two new harbour arms and a breakwater now enclosing an area of some 247 hectares. Dover was an important port of refuge, being the only safe harbour for warships between the Nore and Portsmouth. Dover harbour was also the home of the Dover Patrol, one of the most important Royal Naval commands of the First World War. At its height the Dover Patrol was formed of over 400 vessels for the patrol of the Channel and for escorting troop and supply ships to and from the continent. A new threat in this conflict came from torpedo firing submarines capable of attacking vessels both out at sea and also whilst in harbour. Shipping in Dover harbour was attacked by submarine in 1914. Harbour and coastal defences were developed and enhanced to meet this new threat.

3.279 Rapid technological advancement at the beginning of the twentieth century


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Cover *Dover Patrol Memorial, St Margaret's*
Figure 1 *The Harbour of Refuge. © Skyfotos (d01890)*
Figure 2 *Motor launches in Dover harbour. © IWM (Q 18278)*

introduced other new threats to the theatre of war. Louis Bleriot's successful flight across the English Channel (landing at Northfall Meadow, just to the north-east of the Castle) highlighted the fact that the Channel was no longer the barrier it once was. In the First World War there was the new danger of attack from the air. This became a reality for the residents of Dover as early as December 1914 when a bomb was dropped on the town, causing little damage, except perhaps to a gardener who although not seriously harmed faced the indignity of being blown from a tree that he was pruning. To meet this new aerial threat air stations for planes, sea-planes and airships were built in the District, as well as anti-aircraft defences and pioneering early warning systems.

3.280 The Royal Navy's initial optimism that it could defend the country from invasion was soon tempered and the Admiralty had to concede that it could not guarantee protection against invasion. This resulted in the erection of land defences, which in the Dover area took the form of a ring of earthwork redoubts supplemented by trench systems and gun emplacements.

3.281 Despite the threat from aerial bombardment and the perceived threat of invasion the Great War's main theatre of war was not on home soil, but in continental Europe. Dover was an important port for troop transports to and from France, whilst at Richborough there was a major supply port for the shipping of supplies and materials to the Western Front. Ammunition, tools, materials, vehicles, tanks, horses, rations and food were all shipped out of Richborough. The port was also used to receive salvage from France, with shipments at first using sea going barges and later on purpose built train ferries. By 1918 the port at Richborough had developed into a huge facility covering some 2,000 acres and capable of handling around 30,000 tons of traffic per week and employing in excess of 24,000 people.

Description of the Heritage Assets

Coastal and Harbour defences

3.282 Construction works at Dover Harbour at the beginning of the twentieth century had massively extended the port, with Admiralty Pier Extension, Eastern Arm and the Breakwater enclosing an enormous new harbour of refuge. **Pier Turret Battery** constructed next to the obsolete Dover Turret, **Pier Extension Battery** on the Admiralty Pier Extension, **Eastern Arm Battery** and **Breakwater Battery** were all armed in 1910 to defend the new harbour. A second battery, known as **Knuckle Battery**, was constructed during World War I at the eastern end of the Breakwater.

3.283 Some remains of Pier Turret Battery survive, with No. 1 gun emplacement having a refreshment kiosk built into it and No. 2 emplacement as a viewing platform. Pier Extension Battery remains better preserved with the emplacements surviving but is not accessible to the public. The gun

Figure 3 *Port Richborough © Kent History & Library Centre*
Figure 4 *Pier extension battery at the western harbour entrance showing crew accommodation*

emplacements of the breakwater batteries survive, although in poor condition, as do the associated searchlight positions and the gun crew's accommodation blocks. Due to their position on the breakwater neither of the batteries are accessible except to licensed anglers. It is understood that the gun positions at Eastern Arm battery have been lost to subsequent development, but as with Pier Extension Battery and the breakwater batteries the crew quarters do survive.

3.284 Boom defences were incorporated into both the eastern and western entrances to the harbour and **hawseholes** survive on the eastern and western pier ends and breakwater through which winches could raise and lower submarine cables. During the First World War the harbour's western entrance was blocked by sinking two ships – the *Livonian* and *Spanish Prince*. Remains of these block-ships have been subsequently cleared, the *Livonian* being removed between 1931 and 1933, whilst the *Spanish Prince* was initially left in place (albeit swung through 90 degrees) but was recently (2010) cleared.

3.285 Entrance to the harbour was controlled by the **Port War Signal Station** located on top of the cliffs at Dover Castle and overlooking the harbour. The signal station was constructed on top of a Fire Control Post of 1905 which in turn was located within a former gun emplacement (Hospital Battery built in the 1870s). Any vessel that wished to enter the port had to show appropriate recognition signals (either by flag, light or foghorn/siren in poor visibility). The signals were changed regularly and any ship not showing the correct (or any) signal would be firstly requested to 'heave to' and should it fail to do so would be subject to a 'bring to' round across its bows from a shore battery. The ship would then be directed to an examination anchorage (off the coast at Langdon) under the guns of a designated battery (initially Langdon Battery, but later Eastern Arm Battery). The Port War

Figure 5 Port War Signal Station at Dover Castle

Signal Station is under English Heritage guardianship at Dover Castle. The site has been recently refurbished and is open to the public.

3.286 The Langdon and Citadel Batteries were built at the turn of the century and are located to the east of Dover Castle and at Western Heights respectively. They provided additional coastal defence at Dover harbour during the First World War. **Langdon Battery** lies adjacent to publicly accessible National Trust land and is currently occupied by Dover Coastguard Station. **Citadel Battery** is located on public access land adjacent to the Western Heights but is now derelict. To support the batteries emplacements for searchlights (**Defence Electric Lights**) were used. Sometimes these were located adjacent to the battery they supported (such as those on the Breakwater), whilst others were located at some distance. Searchlight positions for Langdon Battery survive at the base of the Cliff in Langdon Hole. In total there were some 38 searchlight positions around Dover in World War I.

Figure 6 *Citadel battery*

Air defences

3.287 The earliest airfield in the area was established at Dover just prior to the outbreak of the First World War. The airfield was unfinished at the outbreak of the war, but was quickly brought into use acting both to defend Dover and also as a staging post for aircraft flying to France. This airfield was located on Swingate Downs and known as **Dover (St Margaret's)**. Some roads and hut/hanger bases relating to the airfield survive. A second airfield, known as **Dover (Guston)**, was located on the other side of the Dover to Deal road next to Fort Burgoyne. Nothing now survives at the Guston site, although the footprint of the adjacent hutted accommodation camp (locally known as 'Tin

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Town') can still be seen.

3.288 As well as airfields for conventional aircraft a third facility for seaplanes, known as **RNAS Dover (Marine Parade)**, was established in the town at the foot of the cliffs below the Castle. The seaplane station included three hangers (now demolished), a mess room, accommodation, stores, workshops and administration buildings. The administration building survives, but is currently derelict. An outstation to RNAS Dover was established at Walmer in 1917. **RNAS Walmer** was located on Hawkshill Downs, but was abandoned by 1919 and nothing now survives at the site which is marked by a memorial to lost pilots erected shortly after the war.

3.289 As well as aeroplanes use was made in World War I of non-rigid airships and a RNAS base was established to the west of Dover at Capel. **RNAS Capel** not only acted as a base for airships it was also used for their development and construction. The airships were used to carry out patrols along the Channel and to spot submarines when escorting shipping. The air station at Capel included three large hangers and grassed landing areas. The air station was closed in 1919. The airship hangers have been demolished, although the plan of the concrete base for No. 3 Hanger can be clearly seen on modern satellite aerial photographs of the site. It is understood that the pits where the airships were docked also survive, but are now in-filled. The concrete perimeter road also survives, having been incorporated into the layout of the present caravan park that occupies part of the former air station site.

3.290 The first fixed anti-aircraft gun in Dover District was located at **Langdon Battery** and came into service in 1915. With the increasing frequency of German raids more anti-aircraft gun sites were brought into operation, initially at **Drop Redoubt**, **Frith Farm**, **Fort Burgoyne** and on the roof of the Keep at **Dover Castle**. Other guns in the District, such as those on the harbour piers and breakwater, could also be brought to bear on enemy aircraft. Later in the war anti-aircraft guns mounted on modified flatbed rail carriages were deployed on the Prince of Wales' Pier and the Eastern Arm of the harbour and additional anti-aircraft guns

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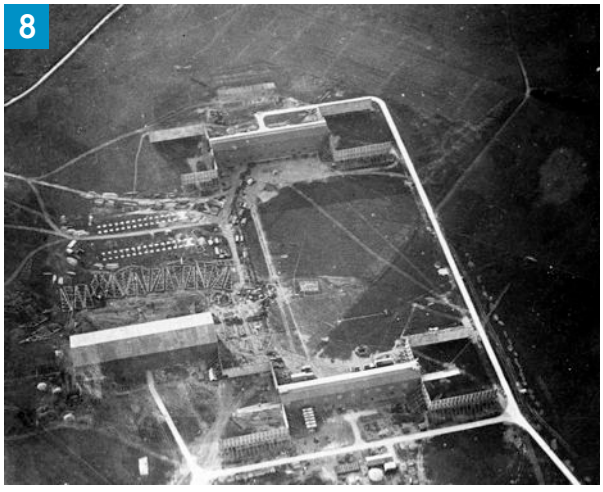


Figure 7 *RNAS Dover Marine seaplane station, view of the surviving administration buildings*
Figure 8 *Aerial view of RNAS Capel airship station. © Dover Museum (d17877)*

located at **River Bottom Wood** and the **Citadel**. First World War anti-aircraft gun emplacements survive at Fort Burgoyne and a concrete emplacement believed to be for a First World War anti-aircraft gun also survives on **Coney Hill**.

3.291 Early warning systems were essential for the defence against enemy aircraft. Reliance on visual sightings alone was problematic; by the time gun crews could be notified or planes scrambled to intercept it was often too late. In order to combat these problems experiments with early warning systems were undertaken and devices known as **sound mirrors** were employed to provide early detection of enemy planes. An early First World War period sound mirror was located at Fan Bay. Set into the hillside the sound mirror was initially backed with puddle chalk, but was modified and re-faced with cement rendered concrete. The sound mirror at Fan Bay was in operation by 1917. The use of acoustic detection continued to be developed in the post war period and a further sound mirror was erected at Fan Bay and a dished 'slab' style mirror erected at Abbot's Cliff in the 1920's. The sound mirrors at Fan Bay survive (although buried as part of a 1970's 'eyesore' clearance programme), whilst the slab mirror at Abbot's Cliff survives intact.

Anti-invasion defences

3.292 At the start of the war the Admiralty was confident that its superior naval power would be able to prevent any sizeable German force from invading mainland Britain. Given the energies being expended by both sides on the Western Front it is uncertain how real the threat of German invasion was, however following the Admiralty's concession that it could not guarantee protection from invasion defences were erected at key sites.

3.293 A ring of **earthwork redoubts** were erected around Dover, intended to protect the town from being taken from the rear by an invasion force landed further along the coast. These redoubts and **field gun emplacements** formed an arc around the town, with positions at **Botany Bay** (Lydden Spout), **Mount Horeham** (Stebbing Down), **Whinless Down**, **Coombe Down**, **Old Park (West)**, **Old Park (East)**, **Long Hill**, **Swingate Downs**, **Upper Road (North)**, **Upper Road (South)** and **Fan Bay.** The redoubts were positioned so as to guard the approaches from Deal, Canterbury and Folkestone. Military control points were also established on roads leading into Dover. No above ground traces of the redoubts can be seen, but it is possible that some buried

Figure 9 *Partially exposed remains of the First World War period sound mirror at Fan Bay, east of Dover*
Figure 10 *First World War checkpoint at Kearsney on the outskirts of Dover*

remains may survive.

3.294 The redoubts around Dover were designed according to the principles set out in the 1911 *Manual of Field Engineering* to provide protection from shrapnel shells. Experience on the Western Front however showed a German preference for the use of high explosive rather than shrapnel against which the redoubt would offer little protection. In 1916 the earthwork redoubts were supplemented with **defensive trenches** of the type employed on the continent. Traces of a small trench system can be seen on Whinless Downs and possibly at Old Park, whilst cropmarks showing other trench positions can be seen on aerial photographs around Guston and Langdon Hole. **Pillboxes** were also employed in the defence of the town and two brick-built pillboxes of First World War date survive near Great Farthingloe. A circular pillbox believed to be of First World War date is also recorded at Fort Burgoyne.

Civil defence

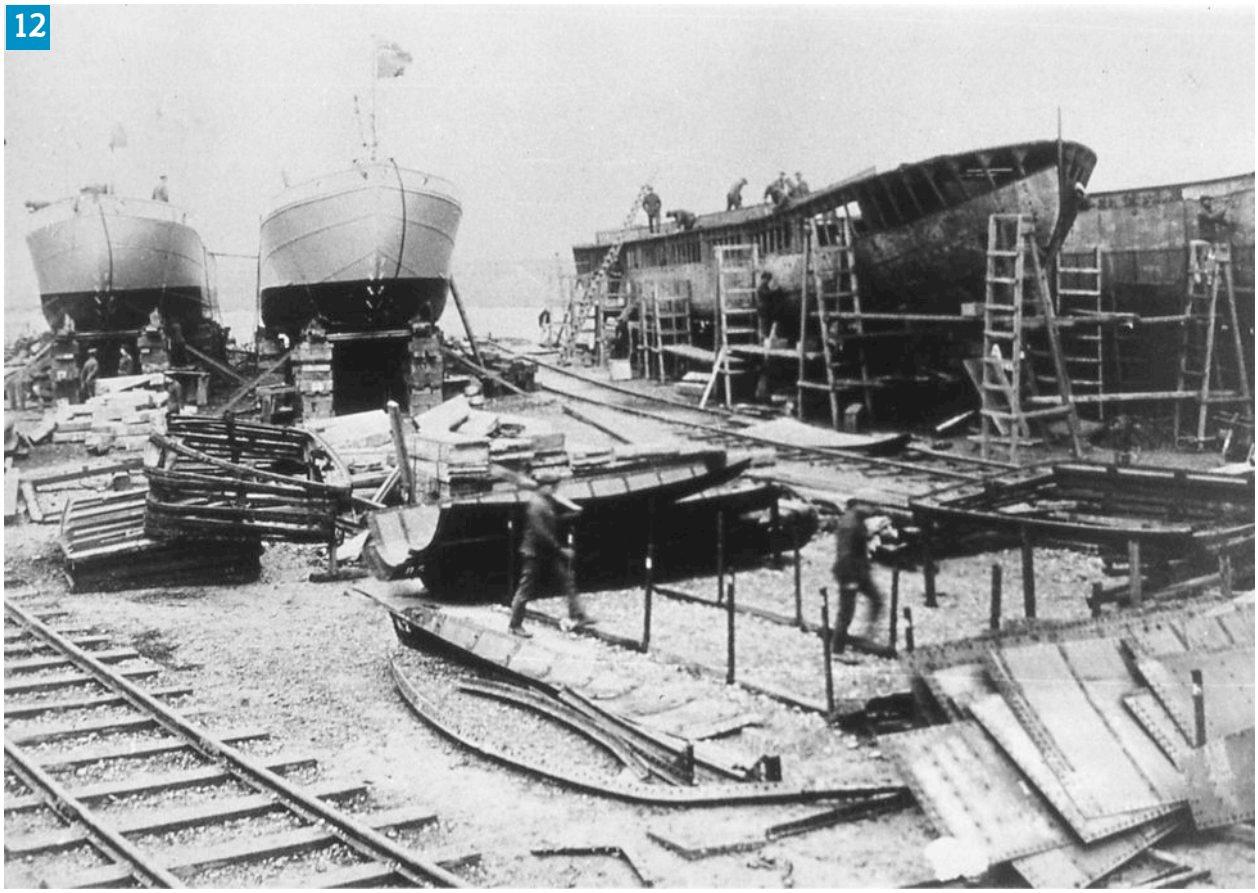
3.295 Aerial bombardment and the threat of shelling from enemy ships meant that the civilian population of Dover were at threat from enemy attack. Some families took the decision to leave the town and sleep in the countryside on moonlit nights when air raids might be expected. Others made use of shelters, some purpose built, and others in chalk caves, cellars and vaults. Chalk caves along Snargate Street and the vaults of Leney's Phoenix Brewery in Dolphin Lane for example were used as shelters during raids. Dugout shelters and brick surface shelters were also built. Towards the end of the war the Royal Engineers excavated a series of shelters in **Winchelsea Road Chalk Pit**, although these were not completed until after the last raid on Dover.

Supply – supporting the Western Front

3.296 Throughout the war Dover played an important role in the movement of troops to and from the continent. Tented **field camps** and hutted camps were erected around the District, especially around Deal and Dover where troops underwent final training before heading off to the front. The Duke of York's Royal Military School at Guston was evacuated to Brentwood for the duration of the war and the site used as a troop transit centre. Vast numbers of troops took part in the First World War, but few of them had much military experience. As part of their training **practice trenches** were dug in order to teach the basics of trench warfare. Examples of practice trenches can be seen on aerial photographs near the Duke of York's Military School at Guston and at Archer's Court Hill. First World War period trenches, possibly practice works, have also been identified at Northfall Meadow.

3.297 A major supply port operated by the Royal Engineers was established at Richborough on the River Stour. At its height **Richborough Port** employed between 25,000 and 45,000 people. As well as the shipping of materials to the Channel Ports and canal systems of Northern France the site also handled salvage material coming back from the continent. Richborough was furnished with extensive freight sidings connected to the South Eastern and East Kent (light) Railways. Initially the port made use of sea-going dumb barges, but later purpose-built roll-on/roll-off train ferries

Figure 11 Aerial view of Richborough Port. © Dover Museum (d00143)



were used, sailing from dedicated berths. Wharf-side travelling cranes and electric gantries were employed to load the cargo and there were extensive storage yards.

3.298 In addition to its transport, salvage and storage roles the port at Richborough was also used for manufacturing and assembly. Workshops, metalworking shops and boatyards with slips were built along the river frontage. To serve the port and to accommodate its workers a series of hutted camps were constructed (Stonar Camp, Queen Mary's Army Auxiliary Corps (QMAAC) Camp, Kitchener Camp, Haig Camp, Robertson Camp and Lord Cowan's Camp). Little now remains of the huge port facility, although some decaying wharf features, remains of a train ferry berth and some buildings do survive. One of the gantry towers for the train ferry survives at Harwich and is designated as a Grade II Listed Building. In Sandwich and some of the surrounding villages pre-cast concrete sections for Moir Pillboxes that were manufactured at Richborough, but presumably never shipped to the Western Front, are used in the construction of kerbs and retaining walls.

Statement of Significance

3.299 The First World War defences in the District have generally left less of a physical mark than those of the preceding centuries, or by the War that was to follow little more than twenty years later. The Great War is a conflict that is largely thought of as being fought on Continental Europe. The need to

Figure 12 *Barge Building, Richborough Port. © Dover Museum (d01276)*

Figure 13 *Prefabricated concrete sections for 'Moir' pillboxes originally cast at Richborough and intended for the Western Front. These sections were never used and now form a retaining wall near Woodnesborough*

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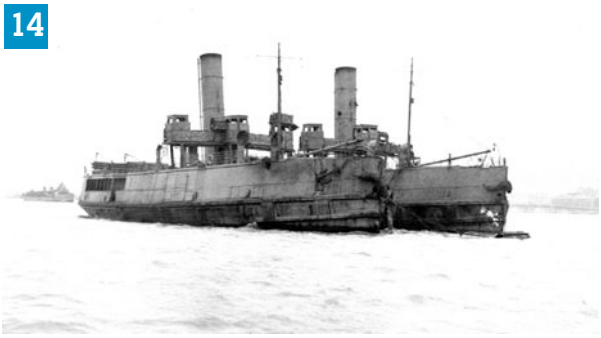

maintain naval supremacy, to supply the Front and the new threat of aerial bombardment however have all left their traces on Dover and the District. The Ports of Dover and Richborough were of vital importance to the war effort during the First World War. Richborough was the main supply base for material and equipment being dispatched to the Western Front, whilst Dover and the Dover Patrol helped to maintain the important channel crossings and to secure the Channel Coast. The defences and supply facilities in Dover District are of **considerable significance**.

Evidential Value

3.300 The First World War remains in the District demonstrate some of the major changes in warfare in the twentieth century. Advances in technology brought new levels of threat to the theatre of war. In particular the use of aerial bombardment completely altered the way in which war impacted upon civilians. Remains such as the sound mirrors at Fan Bay and that of the airship station at Capel show evidence for the design and use of technologies that had relatively short military lives, or in the case of acoustic detection turned out to be technological 'dead ends'. Buried archaeological remains associated with the ring of redoubts and defences surrounding the town could provide useful evidence for the form of hastily erected defences at key military sites.

Historical Value

3.301 The First World War defence remains have strong historical associations, often

15

illustrating and reflecting events at a national and international level. The Admiralty Harbour at Dover has important historic interest, having played a key role as a haven for battleship and submarines protecting the Channel as well as being the base for the daring Zeebrugge Raid. The remains of Dover's airfields, anti-aircraft defences and early acoustic detection devices are a historical reminder of the origins of modern aerial warfare. Richborough Port and Dover Harbour provide a clear illustration for the important role that District played in a worldwide conflict and of the scale of materials and equipment required to supply the Western Front.

Aesthetic Value

3.302 The First World War military remains have left relatively few physical traces on the District's landscape. Those remains that do survive are of limited aesthetic value.

Communal Value

3.303 The fortifications at Dover have an

Figure 14 *HMS Iris and HMS Daffodil in Dover Harbour after Zeebrugge Raid. © IWM (Q 18886)*

Figure 15 *The Nonington Roll of Honour listing the names of the men of this small village who lost their lives fighting in the First World War*

important social and commemorative value as a reminder of the role of that the District played in the First World War. Although there are relatively few physical remains of the war surviving in the District, those that do survive, such as the decaying remains of the once vast port at Richborough are a poignant reminder of the enormous scale of the conflict.

Vulnerabilities

3.304 The defensive heritage assets of the Great War period which survive in Dover District are often of a smaller scale and are less substantial than those of either the preceding or subsequent themes. This does not mean that the assets are less significant, and they are potentially more vulnerable from being less visible and less appreciated.

3.305 The First World War supply and manufacturing depot and port at Richborough for example played a major role in supporting the troops engaged on continental Europe, however the site has now fallen into decay, many of the port buildings have been lost and the site has largely been forgotten. The surviving port infrastructure at Richborough is vulnerable to on-going decay. The surviving remains are vulnerable to exposure and erosion from the River Stour as well as to any works associated with the river and flood control. Development at Richborough has already encroached upon large areas of the former port and depot and few of the original First World War period buildings survive at the site. Those that do survive are vulnerable to being lost in any future development at the site and in the designation of the site as an Enterprise Zone has the potential to increase this vulnerability.

3.306 Sites on the coast, such as the sound mirrors and Langdon Bay searchlight positions are particularly vulnerable to natural threats. Coastal erosion, weathering and root damage all have the potential to

16

negatively impact upon the fabric of these structures. The isolated positions of these and other First World War defensive sites means that they are also vulnerable to deliberate damage through graffiti, wilful damage and other anti-social behaviour.

3.307 Many of the sites have been wholly or partially cleared and largely survive as buried archaeological remains only. As such they are vulnerable to all forms of development and other clearance works.

Opportunities

3.308 The passing of time has meant that the District's First World War heritage assets are now our only direct link to this emotive period of our recent past. With the rich range of heritage assets surviving in the District there is an opportunity to develop the potential of this resource for locals and visitors alike. The Discovering and Recording Kent's 20th Century Military and Civil Defences project has started to look in detail at the surviving heritage assets and there is an opportunity for local groups and volunteers to build upon this work in order

Figure 16 Map from the Dover Express showing bombs and shells dropped on Dover during the First World War. The first bomb on England was dropped in Dover on 24 December 1914. © Dover Express

to better understand and present the District's wartime heritage.

3.309 Some of the sites such as Swingate Airfield have memorials to honour the servicemen based in the District, but there is little in the way of interpretation to inform and educate locals and visitors alike in the role that these sites played in the Great War. The story of the role of Dover Harbour in the First World War is told in part at Dover Castle, but the stories of the early aviators flying out of Dover by plane, sea-plane and airship, or the stories of the huge numbers involved in the supply of the Western Front from Richborough are largely untold. The history of these sites and surviving assets provide and opportunity to help engage schools, locals and visitors alike with this aspect of Dover's recent past.

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Saunders, A., 2007: *Fort Burgoyne – Scheduled Ancient Monument Assessment*. Unpublished English Heritage Report.

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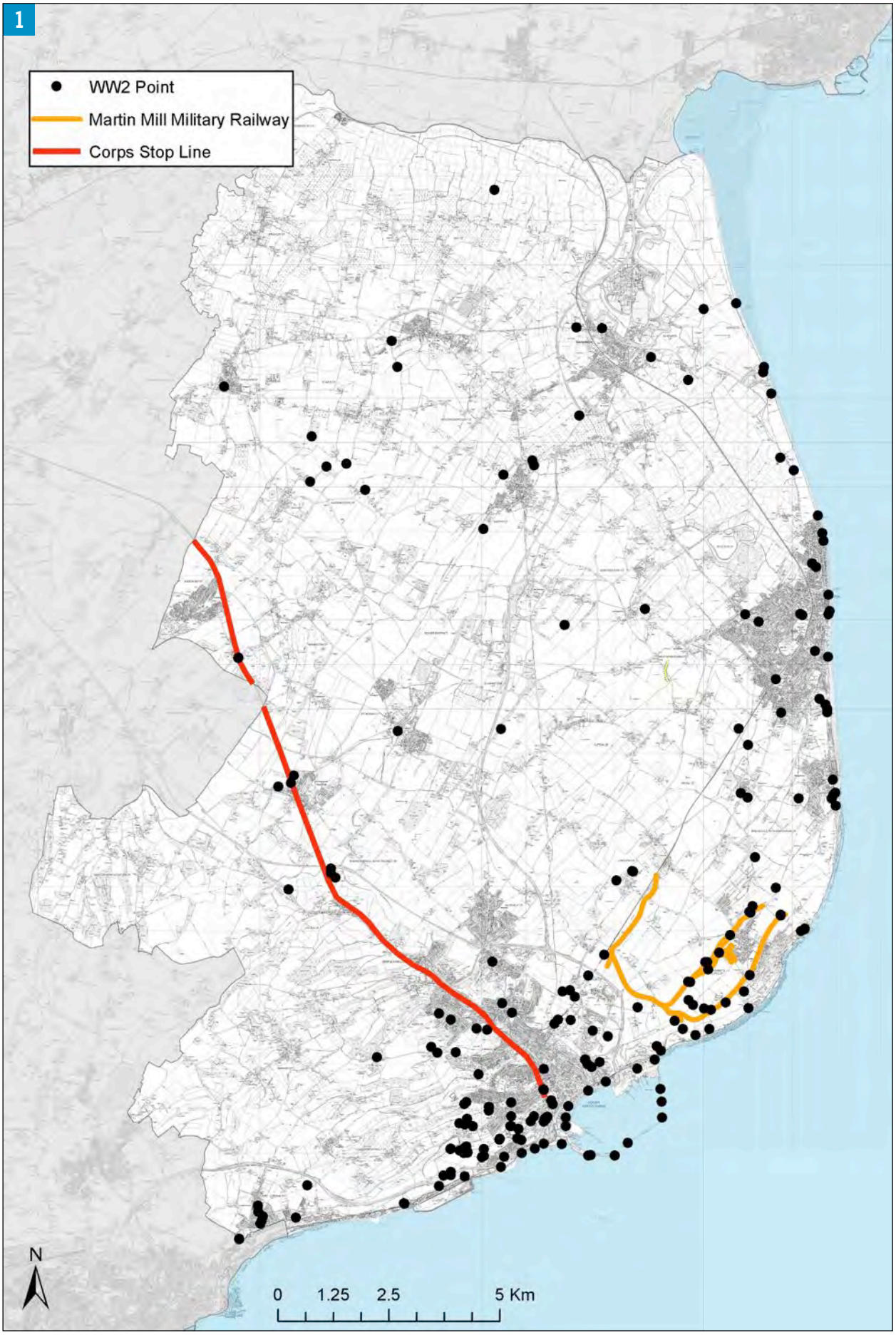
The National Heritage List for England available at http://list.english-heritage.org.uk

Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Pier Turret Battery	Historic Structure	Listed Building	Not publicly accessible	No
Pier Extension Battery	Historic Structure	Listed Building	Not publicly accessible	No
Eastern Arm Battery	Historic Structure	Listed Building	Not publicly accessible	No
Breakwater Battery	Historic Structure	Listed Building	Not publicly accessible	No
Knuckle Battery	Historic Structure	Listed Building	Not publicly accessible	No
Admiralty Harbour	Historic Structure	Listed Building	Partially accessible	General
Port War Signal Station	Historic Structure	Scheduled Monument and Conservation Area	Managed visitor attraction	English Heritage site
Dover Castle	Historic Building, Earthworks and Buried Archaeology	Scheduled Monument, Listed Building and Conservation Area	Managed visitor attraction	English Heritage site
Langdon Battery	Historic Structures, Earthworks and Buried Archaeology	None	Publicly accessible	No
Langdon Hole Searchlight Positions	Historic Structure and Buried Archaeology	None	Not publicly accessible	No
Citadel Battery	Historic Structure and Buried Archaeology	Scheduled Monument	Publicly accessible	No
Dover (St Margaret's) airfield	?Buried Archaeology	None	Not publicly accessible	War memorial
Dover (Guston) airfield	?Buried Archaeology	None	Not publicly accessible	No
Dover (Marine Parade) seaplane station	Historic Building and ?Buried Archaeology	Conservation Area	Not publicly accessible	No
RNAS Walmer airfield	?Buried Archaeology	None	Not publicly accessible	War memorial
RNAS Capel airship station	Buried Archaeology	None	Not publicly accessible	No
Drop Redoubt	Historic Structures, Earthworks and Buried Archaeology	Scheduled Monument	Limited access to Drop Redoubt	No?

Asset	Form	Designation & Protection	Accessibility	Interpretation
Frith Farm anti-aircraft battery	?Buried Archaeology	None	Not publicly accessible	No
Fort Burgoyne	Historic Structures, Earthworks and Buried Archaeology	Scheduled Monument	Not publicly accessible	No
Fan Bay Sound Mirrors	Historic Structures, Earthworks and Buried Archaeology	None	Open access land	No
Abbot's Cliff Sound Mirror (NB Post WW1)	Historic Structure	None	Open access land	No
Farthingloe Area Pillboxes	Historic Structures	None	Not publicly accessible	No
Winchelsea Road Shelters	Historic Structures	None	Not publicly accessible	No
Richborough Port	Historic Buildings, Structures and Buried Archaeology	None	Partially accessible	No

Appendix 1:
Theme 3.7 – Second World War Defences



Cover *Save for Defence poster featuring the White Cliffs. © IWM (Art.IWM PST 3369)*

Figure 1 *Second World War Defences recorded in the County Historic Environment Record*

Theme 3.7 – Second World War Defences

Summary

3.310 The twentieth century was one of rapid technological advance – telephony, radio and radar brought new means of communication, long-range detection and directing gun-fire; whilst cross-Channel guns, powerful battle tanks and flying rockets brought new threats to military and civilian targets. During the Second World War the area around Dover gained the nickname 'Hell-fire Corner'. Dover was literally and symbolically on the front-line and it is therefore not surprising that the District contains an exceptional wealth of heritage assets relating the defences of the Second World War.

Introduction

3.311 Following the outbreak of the Second World War in 1939 Kent, and Dover in particular, was once again on the front-line. There was not an immediate threat of invasion at the outset of hostilities, and initial defence works in the District were focussed on countering the threat of cross-Channel shelling and aerial and coastal bombardment.

Figure 2 *Section of armoured plating from a German long-range gun indicating the shells fired at Dover. The plate was presented from Calais and has been incorporated into a memorial on Dover's Esplanade*

Figure 3 *The Prime Minister Winston Churchill with Vice Admiral Sir Bertram Ramsay at Dover Castle. © IWM (H 3508)*

3.312 Air defence took the form of a co-ordinated layered defence. Radar stations spread along the coast provided for the early detection of enemy bombers and fighter aircraft, whilst new Anti-Aircraft batteries were established along the cliffs around Dover. The Second World War also saw a radical overhaul of the coastal defence batteries with guns positioned to deny the Channel to enemy shipping. These coastal batteries were supported by mobile rail-mounted guns located in-land from the coast.

3.313 The use of aerial bombardment had been successfully foreseen in the interwar years and plans were put in place for civil defence works under the auspices of the Air Raid Precautions organisation. The *Air Raid Precautions (ARP) Act 1937* placed the obligation for the provision of civil defence on local government who were to prepare shelter and anti-gas precautions. Surface and covered trench shelters were provided at schools, at factories and in public open spaces. Small domestic shelters were also erected, the most common of these being the Anderson Shelter. Existing basements and cellars were also used as makeshift shelters, often being reinforced for the purpose. At some sites deep underground shelters were excavated, although these are relatively rare and are generally associated with key military sites. Air Raid Wardens helped co-ordinate civil defence locally and wardens' posts, air

raid sirens and gas decontamination centres were established at key locations.

3.314 The possibility of a German invasion force landing on British shores became a much greater threat following the retreat, and subsequent evacuation, of the British Expeditionary Force from the continent in 1940. British and French troops had been driven back across France by German Forces, sustaining heavy losses along the way. In late May and early June a massive evacuation operation was mounted to rescue troops from the beaches and port of Dunkirk. This evacuation effort (code-named Operation Dynamo) was undertaken under the responsibility of Vice Admiral Bertram Ramsay and co-ordinated from a network of underground tunnels beneath Dover Castle. In total some 338,228 soldiers were rescued from France, but much heavy equipment and arms had to be abandoned.

3.315 Following the evacuation of British and French troops from the beaches of Dunkirk it was widely thought that a German invasion of Britain was imminent. Anti-

invasion defences were rapidly thrown up in preparation. On potential coastal landing grounds and beaches a range of defensive barriers were erected to form a 'coastal crust' and Pillboxes, wire and scaffold barriers and minefields were rapidly thrown up. To prepare for a Blitzkrieg type attack that had been so devastatingly employed by the Germans on the continent a series of inland defences revolving around defended 'nodal' points and stop-lines were established. The threat of invasion came not only from the sea, but also from the air. The earlier German advance into Scandinavia in April had highlighted the enemy tactic of using well organised air transport units for the landing of troops and supplies. Airfield defences were improved and other potential landing sites were denied to the enemy by measures such as the excavation of 'anti-glider' ditches across large open fields, the use of obstacles and erection of anti-landing stakes and wires.

Description of the Heritage Assets

Coastal and Harbour defences

3.316 With the exception of the construction of an additional battery at the Knuckle on the harbour breakwater the defences of Dover Harbour were much the same at the end of the First World War as they were at its beginning. This remained the case through the inter-war years; the Second

Figure 4 *Royal Navy destroyers crowded with evacuated British troops, Dover, 31 May 1941. © IWM (H 1645)*
Figure 5 *Seaforth Highlanders guard the White Cliffs c. 1940-41. © IWM (H 8994A)*

World War however saw a radical overhaul of coastal defences around the harbour and in the wider District.

3.317 During the Second World War a number of new coastal batteries were established along the coast of East Kent. Most of the Coast Batteries installed around the coast of the British Isles during the Second World War were defensive batteries, to help stop an invasion. At Dover batteries were also constructed with an offensive role in mind so as to attack enemy shipping and to retain command of the Straights of Dover. Such long range guns were also capable of firing on German positions on the French Coast. The first of these long-range guns was installed in August 1940 on land near St Margaret's at Cliffe. The battery was equipped with a 14 inch naval gun on a fixed mounting and was given the nickname **Winnie** (presumably after Churchill under who's direct orders it was built). Winnie was the first ever British gun to send a shell across the Channel. A second long-range coastal gun, perhaps not surprisingly, nicknamed **Pooh** was installed in February 1941 also at St Margaret's.

3.318 Both Winnie and Pooh were served by a railway spur of the **Martin Mill Military Railway**. The military railway was originally built as a mineral railway by S. Pearson & Son at the end of the nineteenth century to supply materials for the construction of the new Admiralty Harbour. The original line ran from a junction with the South Eastern and Chatham Railway at Martin Mill to the cliffs at Langdon. The railway was partially lifted in 1918 with the remainder being removed for scrap by the army in 1937. With the outbreak of the Second World War the line was re-lain and two new extensions added to St Margaret's.

3.319 The northern line to St Margaret's served the two 14 inch guns, Winnie and Pooh. Three heavy rail mounted guns, known

as *Gladiator*, *Scene Shifter* and *Piece Maker* (all 13.5 inch ex-naval) were deployed on the railway. The barrels of the rail mounted guns lacked lateral traverse and so this was provided by shunting the guns along curved firing spurs for targeting. The line of the northern branch of the military railway can be clearly seen on aerial photographs and some parts of the associated infrastructure remain. Rail-side magazines survive at Townsend Farm, St Margaret's and at Swingate where the line of the railway can be clearly traced on the ground. The curved firing spurs for the rail-mounted guns can also be clearly traced on aerial photographs. Little remains at the site of Winnie, although there are some concrete remains to be seen and it is likely more remains survive buried underground. The site of Pooh survives slightly better, although the gun position itself has been removed the associated observation post, wireless room and reserve powerhouse all survive.

3.320 In the previous war military thinking had revolved around the use of Coastal Batteries for the defence of ports and the existing defences in the District were all focussed on Dover. The general defence of the coast in the First World War was the responsibility of the Navy. In the Second World War a linear system of defence was favoured, focussing not only on ports, but treating the whole coast as a defensive line. To this end a string of Emergency Coastal Batteries were established along the coastline in the summer of 1940. In Dover District Emergency Coastal Batteries were

Figure 6 *Inspection of a rail gun near Dover. © IWM H 13982*

established at Sandwich Bay, North Deal, Deal, Stag Point (Kingsdown), St Margaret's and the Western Heights. The Emergency Coastal Batteries were equipped with redundant 5.5 inch & 6 inch naval guns (removed from scrapped war-ships at the end of the First World War and kept in store).

3.321 Of the Emergency Coastal Batteries those at **Sandwich Bay**, **North Deal**, and **Deal** have not left any above ground remains. Some remains survive at **St Margaret's** battery (including a gun emplacement at the former and a deep shelter for accommodation and medical facilities at the later), whilst at **Stag Point** it is possible to see the two gun positions and magazines and the Battery Observation Post is extant in the cliff face. Other features like trench works can also be seen here. The best preserved Emergency Coastal Battery in the District is that at **Western Heights**. The Western Heights Emergency Coastal Battery adapted the old St Martin's Battery with new concrete holdfasts and a protective reinforced concrete canopy added. To the rear of the battery a deep shelter was excavated (extending off of a tunnel and cartridge store of the original St Martin's Battery). The deep shelter included accommodation, sanitary and medical facilities.

3.322 In September 1940 plans were drawn up for the siting of new permanent coastal batteries along the cliffs to the east and west of Dover. Positions for new batteries were identified at South Foreland, Wanstone, Fan Bay, Hougham, Lydden Spout and Capel. The first of these new batteries to come into service was Fan Bay in 1941, followed by South Foreland and Lydden Spout later in 1941 and Wanstone, Capel and Hougham in the summer of 1942. The collection of coastal batteries at Dover represent the largest concentration of new coastal batteries built during the Second World War.

3.323 **Fan Bay Coastal Battery** was

Figure 7 *Stairs into Fan Bay deep shelter*

equipped with three 6 inch gun positions each with its own underground magazine. The three 6-inch guns at Fan Bay were high angle guns to give them increased range. Searchlight positions were located below the battery on the cliff edge, supplied from an on-site generator. A deep underground shelter was constructed with a main entrance to the east of No. 3 gun position and two further seaward entrances located next to the earlier sound mirrors. A surface accommodation camp was also provided adjacent to the battery. The gun pits survive, but all surface buildings at the site have been cleared. The underground magazines and deep shelter remain intact. Fan Bay, South Foreland and Wanstone Batteries were all part of 540 Coast Regiment, Royal Artillery and some of the structures are part of the Regimental HQ and Fire Command.

3.324 **South Foreland Coastal Battery** was equipped with four 9.2 inch gun positions; the outer two served by their own underground magazines and the centre pair being supplied from a reinforced surface magazine. Underground works at the site

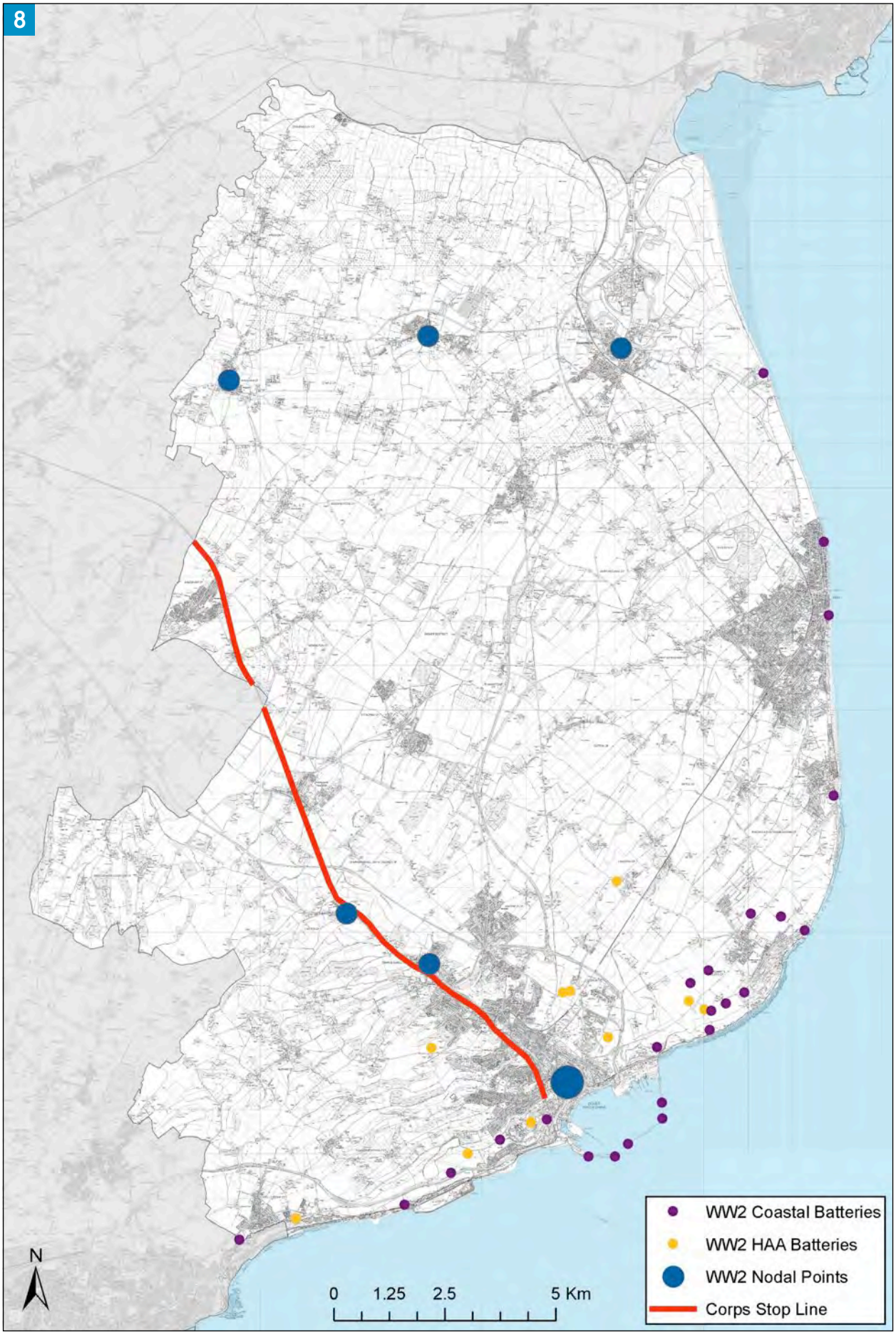


Figure 8 *Second World War coastal batteries, heavy anti-aircraft batteries (HAA) and nodal points*

included two plotting rooms with associated tunnel shelter and an underground accommodation and medical stations. Surface accommodation blocks and facilities were also provided to the rear of the battery. Some above ground remains survive at the site including the Engine Room, Observation Post, Guardhouse and Cookhouse. The gun positions are understood to survive but have been in-filled. The underground works including plotting rooms, deep shelter and magazines also survive.

3.325 **Lydden Spout Coastal Battery** was located to the west of Dover and was provided with three 6 inch high angle gun positions each serviced from their own buried magazine. The battery was controlled from a combined underground command post and plotting room. Accommodation was provided above ground to the rear of the battery and there was also a deep shelter to provide protected accommodation and medical facilities. The three gun pits survive (although they have been partially in-filled) as do their accompanying magazines. Some of the accommodation buildings survive above ground and the underground plotting room and deep shelter also survive.

3.326 The heaviest coastal guns emplaced along the Kent coastline were located at **Wanstone Battery**, where two 15 inch guns nicknamed 'Jane' and 'Clem' were deployed. The two guns were situated some 350 metres apart and each was equipped with large twin surface magazines. Surface accommodation was provided at Wanstone Farm as well as underground sheltered accommodation and medical facilities. The guns were able to provide cross-Channel fire as well as to target shipping in the Channel itself. The heavy German cross-Channel Guns of the Atlantic Wall were usually housed in reinforced concrete casemates. The British guns were not provided with such protection and instead relied heavily on camouflage. The Wanstone Coastal Battery site survives in a

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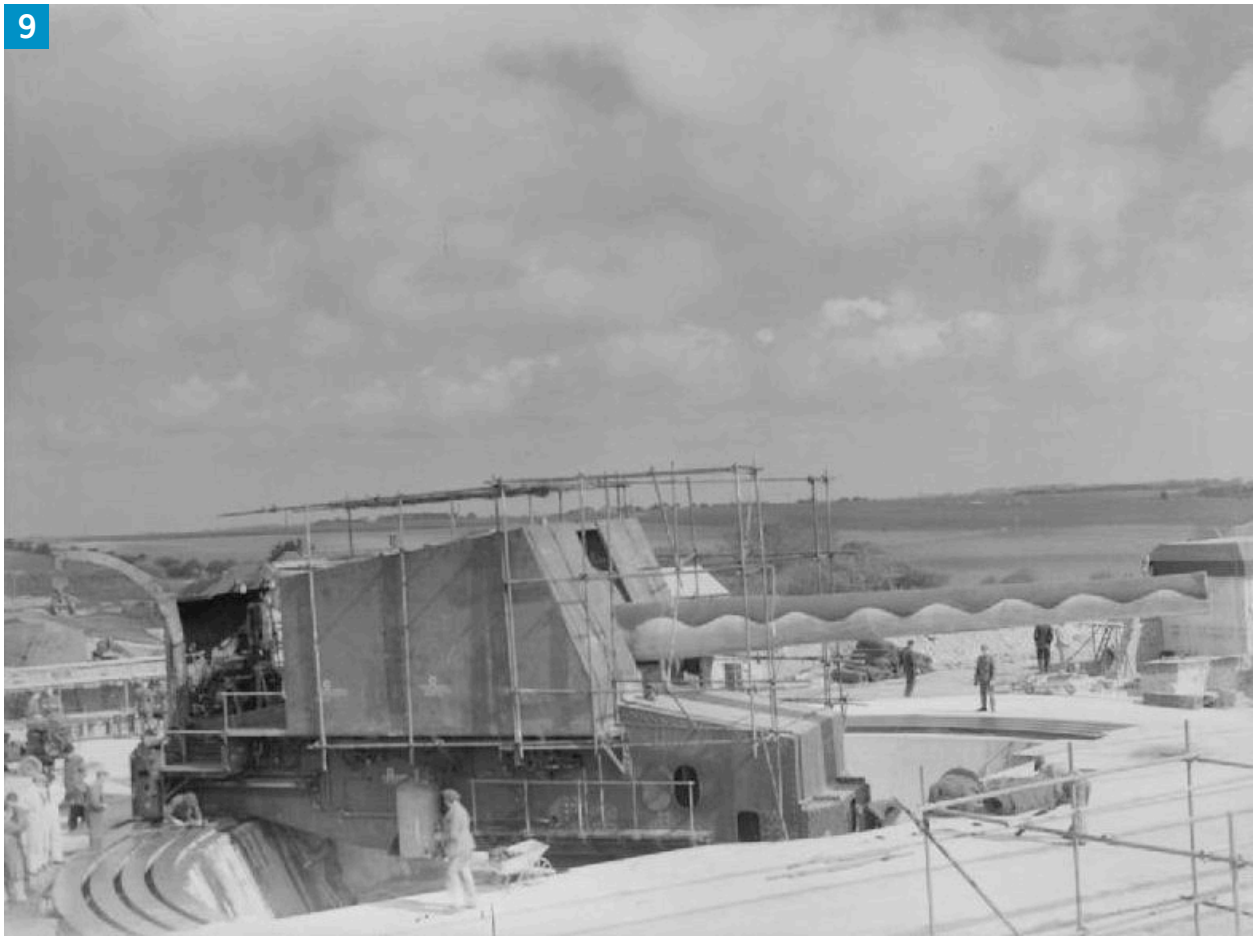

Figure 9 Wanstone Battry 15 inch gun under construction 1942. © IWM (H 19835)

relatively well preserved state. The gun positions, four magazines and ancillary buildings survive as do concrete posts for attaching camouflage netting. The underground accommodation is also understood to survive, but the entrances to the structure have been demolished and backfilled.

3.327 Wanstone Coastal Battery was serviced by the Martin Mill Military Railway's southern line to St Margaret's. The railway provided for the delivery of ammunition as well as replacement gun barrels. Two short sidings were located adjacent to 'Jane' and 'Clem' for barrel changing. Beyond Wanstone Battery the railway line passed South Foreland Battery and extended to the site of a hypervelocity gun beyond St Margaret's. The hypervelocity gun at St Margaret's was given the nickname '**Bruce**'. It was constructed later in the war as an experimental gun and was never used operationally (being pointed north towards the Shoesburyness firing ranges in Essex). Some remains of the gun-pit and surface buildings survive.

3.328 The westernmost Coastal Battery in the Dover District was intended to be constructed at Abbots Cliffe, but was relocated to Capel following comments by the Admiralty. **The Capel Coastal Battery** was equipped with three 8 inch guns each served by its own magazine and controlled from a buried reinforced concrete command and plotting room. Surface accommodation was provided adjacent to the battery and an underground deep shelter and medical dressing station were provided. The site now lies partially in Dover District, with the remainder of the site falling in Shepway District. The site is now the location of the Battle of Britain Memorial and no above ground remains survive at the site. The position of two of the gun positions and their associated magazines are marked at the memorial by two earth mounds near to the cliff edge.

3.329 **Hougham Coastal Battery** was equipped with three 8 inch guns each served by their own underground magazines located immediately to the rear of the gun positions. The 8 inch guns at Hougham and Capel batteries were the only 8 inch guns that the Royal Artillery had. A line of observation posts were located on the cliff edge to the fore of the battery. The site was equipped with an underground plotting room and medical dressing station as well as surface ancillary and accommodation buildings. Little survives above ground at the battery site, although the cliff top observation posts are well preserved and are a prominent feature. The plotting room also survives. The three gun emplacements are buried under spoil from a 1970s channel tunnel attempt, whilst the modern A20 cuts across part of the

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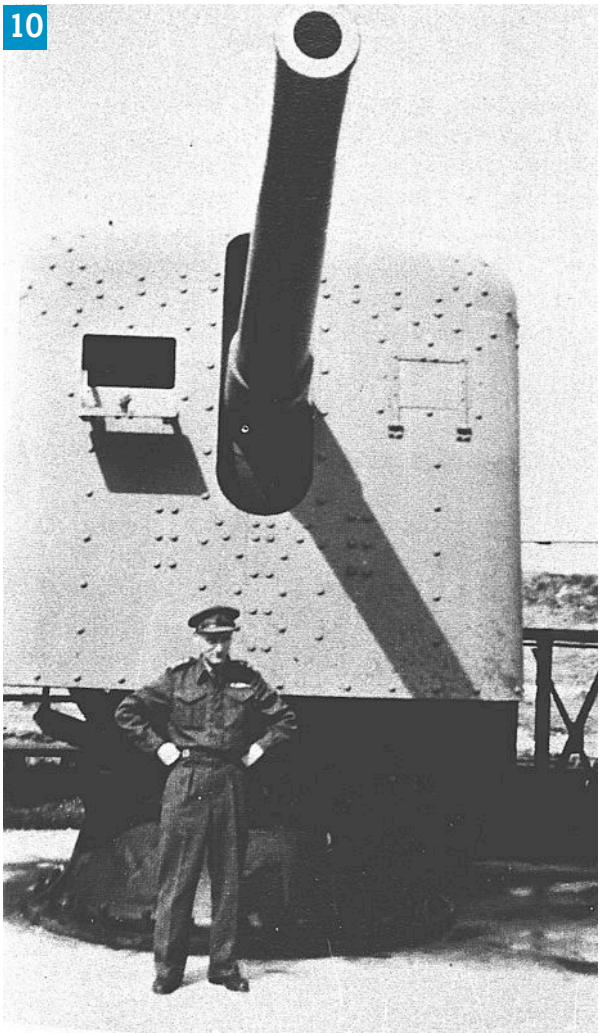


Figure 10 Major Frank Martin at Langdon Battery in front of a 6in gun. © Dover Museum (d00300)

former accommodation area.

3.330 In addition to the Emergency Coastal Batteries erected in the summer of 1940 and the new Coastal Batteries that were subsequently brought into service in 1941 and 1942 some of the existing First World War coastal defence batteries were brought back into service. On Admiralty Harbour **Eastern Arm**, **Knuckle**, **Breakwater**, **Pier Extension** and **Pier Turret** Batteries were all re-armed with new guns. Two 6 inch guns were also installed at **Langdon Battery** overlooking the harbour (a third was installed for a period of time and then removed) whilst **Citadel Battery** was equipped with two 9.2 inch guns which had new barrels installed just before the Second World War.

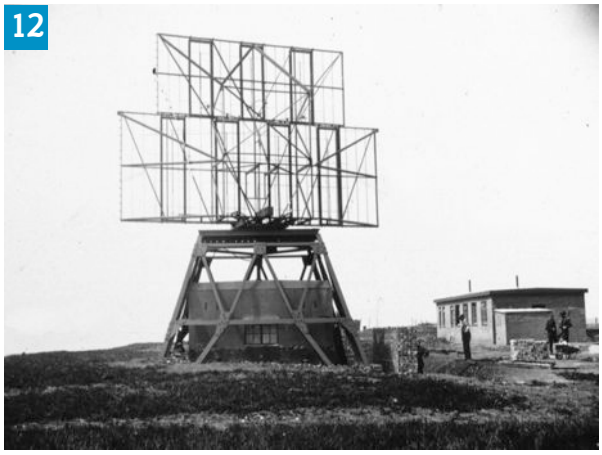
3.331 As in the First World War the Harbour entrance at Dover was protected by blockships that were deliberately sunk in the harbour entrance. The vessels used in the Second World War were the *War Sepoy* and *Larrinaga*. The remains of these blockships were cleared in the 1950s and 1960s with the western harbour entrance being fully re-opened by 1963. Entrance to the harbour was still controlled via the Port War Signal Station located on the cliffs above the harbour at Dover Castle. The Port War Signal Station was constructed on top of a Fire Control Post of 1905 which in turn was located within a former gun emplacement (Hospital Battery built in the 1870s) and was fitted with a reinforced concrete roof to provide extra protection from aerial attack. The Fire Control Post and Port War Signal Station has been recently restored and conserved and is publicly accessible at Dover Castle. Three torpedo tubes sighted across the harbour entrance were fitted to the Eastern Arm to provide additional protection to the eastern harbour entrance. Anti-torpedo nets were also deployed at the harbour entrance; a portion of this anti-torpedo netting survives having been moved to the Western Heights

post-war.

3.332 The inter-war years had led to the rapid development of new radar detection systems. Their initial deployment was as an early warning defence against enemy aircraft; however the potential for radar to be used to provide early warning and fire control for coastal gun batteries was quickly recognised during the war. Dover can be considered to be the home of coastal artillery radar and it is here that the first experimental sets were used. During the Second World War radar was used for three primary purposes at coastal artillery sites, firstly for early warning in lieu of visual methods, secondly for fire control (both for targeting and plotting the fall of shot) and thirdly for providing information on the overall engagement. Initial coastal defence radar established from the spring of 1941 could not provide fire control, but did provide a general early warning system both for the plotting of enemy shipping and low flying aircraft. These coastal defence radar sites were known as CD/CHL (Coastal Defence/Chain Home Low) and were given and 'M' prefix designation. The first CD/CHL sites were established in the Dover District (M1 Fan Hole, M2 Lydden Spout and M3 Walmer).

3.333 Dedicated Coastal Artillery radar systems were quickly developed allowing for both early warning and fire control, with the first experimental site being established at South Foreland Battery (designated B(p)X –

Figure 11 Port War Signal Station and Admiralty Lookout at Dover Castle



'B' indicating that the site belonged to the 'B' series battery control radar sites and the X an experimental site). 'B' series battery control radar was provided at Lydden Spout (site B3), Capel (B4), Wanstone (B5), Hougham (B6), South Foreland (B8) and Fan Bay (B9) Coastal Artillery radar continued to be developed throughout the war and Dover again was the first location to be equipped with more advanced systems. Few visible remains survive at any of the Radar sites.

3.334 The operation of the guns at the various batteries around Dover required delicate instruments for range finding and aiming which required specialist off-site maintenance. The Royal Electrical and Mechanical Engineers undertook this work from a depot on Military Hill. The **Military Hill Depot** building survives and is now used as a garage located partway up North Military Road.

Air defences

3.335 In the Second World War there were no active air bases or airfields in the District, although an emergency landing site was maintained at Ewell Minnis. It is unlikely that such a landing ground would leave any physical trace on the ground and it is not now known exactly where the landing ground was located.

3.336 Air defences in the District were focussed on fixed and mobile anti-aircraft batteries, radar early warning systems and bombing decoys. The need to improve the nation's air defence capabilities was recognised before the outbreak of the Second World War and air defences were enhanced from the mid 1930s onwards. The outbreak of the Second World War however hastened this process and led to a frantic expansion of air defences.

3.337 Artillery Anti-Aircraft defences are split into two classes, Heavy Anti-Aircraft (HAA) and Light Anti-Aircraft (LAA). Guns of .303 inch calibre up to 3 inch are identified

Figure 12 Chain Home Low radar apparatus. © Dover Museum (d13344)
Figure 13 Aerial view of the Farthingloe Heavy Anti-Aircraft battery

as LAA; whilst 3 inch upwards are HAA. The 8 inch guns at Hougham and Capel batteries were high angle and could be used in an AA role. As with the Coastal Artillery Batteries the Heavy Anti Aircraft (HAA Batteries) in the Dover District were focussed on the coastal area between Sandwich and Capel. Light Anti Aircraft sites were focussed on the Port and Town of Dover, to protect coastal batteries and other strategic military sites and around the coalfields at Betteshanger and Tilmanstone.

3.338 The **Heavy Anti Aircraft batteries** used a variety of weapons, initially 3 inch guns of First World War date were deployed and these continued in service throughout the Second World War with examples being on Dover Sea Front and at the Western Heights. Both mobile and static newly developed 3.7 inch guns were employed at new green-field battery sites in the District. The positions for the mobile weapons would have been fairly ephemeral, comprising earth and sandbag

14

emplacements. As more static guns became available more permanent installations were established. Heavy Anti Aircraft Batteries were established at **F10 North Foreland** (Sandwich – two sites), **FO3 Capel Court**, **D1 Farthingloe**, D2 Swingate, D3 Frith Farm, **D4 St Radigund's**, **D5 Edinburgh Hill**, **D6 Dover Harbour** (originally sited at Hawkshill, Walmer), **D7 Western Heights** (originally located at Sandown), **D8 Church Farm**, **D10 Ringwould**, and **D12 Mill Hill**. Later in the war a new 5.25 inch HAA gun was developed

15

Figure 14 *Remains of Farthingloe battery*
Figure 15 *3.7-in guns of 75th HAA Battery, Royal Artillery, near Dover 1940. © IWM (H 4726)*

which required more substantial installations but allowed for more automated firing. Two 5.25 inch HAA gun batteries were built in Dover District towards the end of the war at D2 Swingate and **D3 Frith Farm**.

3.339 There are no above ground visible remains of the HAA batteries at Edinburgh Hill, Capel Court, Western Heights, Dover Harbour, St Radigund's, North Foreland (Sandwich sites), Ringwould or Mill Hill, although buried archaeological remains may survive (for example the location of the battery at St Radigund's can be seen on cropmarks on modern aerial photographs). Accommodation buildings associated with the Church Farm battery survive at East Langdon including latrine/ablution blocks and Nissen Huts, but nothing survives above ground of the gun positions themselves. The gun positions and access roads can all be made out at the Frith Farm site and there are buried remains of magazines at the site. The later 5.25 inch HAA battery site is in better condition than the adjacent earlier 3.7 inch position. The best preserved HAA batteries in the District are those at Swingate (adjacent to Wanstone Farm) and at Farthingloe where the gun positions as well as some ancillary buildings survive.

3.340 The **Light Anti-Aircraft emplacements**, as their name suggests, were much less substantial in their construction. Light Anti-Aircraft positions often took the form of little more than a sandbag or concrete-block revetted gun emplacement and as such nothing above ground survives at most Light Anti-Aircraft positions. Light Anti-Aircraft emplacements were deployed around the town of Dover as well as at the collieries of Betteshanger and Tilmanstone. Light Anti-Aircraft emplacements were also positioned at military sites across the District, including at coastal batteries and the radar station at Swingate. At Swingate a Light Anti-Aircraft emplacement survives built on the roof of a Type 22 Pillbox. At Citadel Battery and Western Heights Battery Anti-Aircraft guns were emplaced in Type 23 pillboxes with two examples surviving at both battery sites. A Light Anti-Aircraft emplacement of chalk and concrete construction with surviving ammunition lockers can be seen to the south of Langdon Battery overlooking Dover Harbour's eastern arm. Mobile Light Anti-Aircraft guns were also deployed in the District and a concrete shelter for the storage of one of these mobile guns survives at Aylesham.

3.341 In addition to the regular Heavy and Light Anti-Aircraft guns use was also made in the Second World War of projected rockets in an anti-aircraft role. Known as 'unrotated projectiles' or **'Z-rocket' (ZAA) batteries** they comprised a simple rocket launched from a 'drain-pipe' like projector, relying on density of fire rather then accurate targeting. Such rocket batteries came into use from late 1940/early 1941. The launchers themselves had multiple barrels (between 2 and twenty) and were arranged in blocks. Z-rocket batteries were deployed around Dover, with examples being known at BB5 Guston (64 twin barrelled U2P launchers), Z3 Duke of York's Military School (64 twin barrelled U2P launchers), UP1 Dover Harbour (Prince of Wales Pier – 3 twenty barrelled U20P projectors) and UP2 Dover Harbour (South Jetty – 3 twenty barrelled U20P projectors) The emplacements and facilities at such rocket batteries were generally light and no above ground remains are known to survive at any of the District's recorded sites.

3.342 An Equipment Ammunition Magazine, believed to have been built to serve the anti-aircraft defences around Dover, is located on Lydden Hill. The **Lydden Hill Magazine** comprises three individual concrete magazine buildings separated by concrete and earth traverses. The magazine buildings and traverses survive and the site is currently

16

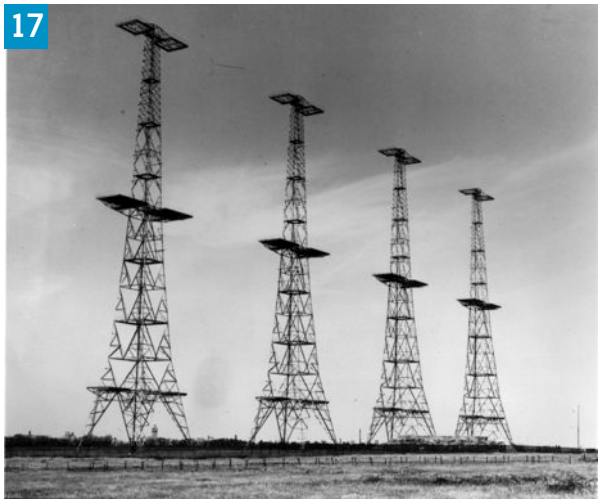
under military ownership and used for training purposes.

3.343 **Barrage Balloons** were deployed around the port and town of Dover to protect it from low flying dive-bombers. At Dover such balloons were tethered around the town as well as mobile floating balloons attached to barges and trawlers that could be positioned around the port. Land-based barrage balloons could be tethered to stanchions set in concrete blocks. A series of iron hoops have previously been noted set within the Parade Ground at Fort Burgoyne that are believed to have been used for tethering barrage balloons. Other barrage balloon positions would leave no trace, with the balloon being raised off the back of a winch lorry.

3.344 Systems to provide for the early warning and detection of enemy aircraft at the end of the First World War relied on visual observation allied with acoustic listening devices. Experiments with acoustic listening devices continued in the inter-war years; however the development of **Radar** systems from the late 1930s onwards revolutionised the early detection of enemy aircraft even at High Speed. The early radar network consisted of a series of radar stations known as the Chain Home layout. It became apparent early on in the war that whilst the chain home layout was effective at detecting enemy aircraft at higher altitudes, the system was less effective for low level cover. To plug the gap in low-looking radar the original Chain Home Network was upgraded through the construction of new Chain Home Low stations.

3.345 In 1941 the country's radar defences

Figure 16 *A kite balloon operated by No. 961 Balloon Squadron is winched into the air amid damaged buildings at Granville Gardens, Dover. © IWM (CH 11026)*



were further enhanced through the use of Ground Controlled Interception sites for the direct in-land control of fighters at night-time. Another 1941 radar introduction were the Coastal Defence Chain Home Low stations (these were initially primarily concerned with the detection of surface shipping and are discussed with the coastal defences above). Advances in radar technology continued to advance at a rapid rate and the summer of 1941 marked the introduction of the first operational prototype Centimetric radar systems that allowed for even more accurate tracking of low flying aircraft shipping.

3.346 **Swingate Chain Home station** was built on the site of the WWI Dover (St Margaret's) airfield and was one of the country's first operational radar stations. Construction at Swingate started in 1936, but the site was not fully operational until the summer of 1938. The station was equipped with four 350-foot transmitter towers (of steel construction) and four 240-foot wooden receiver towers (of wooden construction). One of the original steel towers survives along with a later replacement (a second original tower was regrettably demolished in 2010). The bases of the other two masts survive. None of the four wooden receiver towers survive, although the concrete bases for three of the four positions remain *in situ*. The transmitter block building (traversed within a bunded enclosure) survives at the site as does the receiver building (likewise bunded). The remains of the concrete roadways at the station as well as concrete hut bases for other ancillary structures also remain. Chain Home Low radar equipment was later added to the original Swingate Chain Home site, but no remains are known to survive above ground relating to the Chain Home Low equipment.

3.347 Sandwich was selected as the location for one of the new Ground Controlled Interception Stations which were developed to provide inland radar cover and to assist in night-time interception. Construction of the **Sandwich Ground Controlled Interception station** (or RAF Sandwich) started in spring 1942 and by 1943 was fully operational. The operations control block (known by the nick-name *Happidrome*) survives at the site as do the site's guardhouse and some ancillary structures. Concrete access roads and some of the radar

Figures 17 & 18 *Swingate Chain Home station transmitter towers, historical (17 © Dover Museum (d17412)) and modern views (18)*

Figure 19 *Accommodation buildings for RAF Sandwich at Stonar*

plinths also remain. Parts of the domestic accommodation camp for RAF Sandwich also survive to the east of off Ramsgate Road. The radio station for RAF Sandwich is also understood to survive, located away from the parent station in the nearby village of Ash; it is now used by a fireworks company.

3.348 The first prototype Centimetric radar installation was erected at Lydden Spout in June 1941. The new Centimetric (or Chain Home Extra Low) sets were labelled in the 'K' prefix series, the Lydden Spout station being K148 (and located on the former CD/CHL M2 site). A new Centimetric Station was set up at Lethercoates (K147). Nothing is known to survive above ground at either site, but buried remains may still survive. An experimental naval site using the same technology as the 'K' series radar stations was also established at Abbotscliffe House, Capel. A building, seemingly of Second World War date as well as a possible plinth for a radar station survive at the site.

3.349 A final type of radar station represented in the District was not strictly part of the air defence network, but is perhaps best mentioned here. **Hawkshill Down Oboe Station** (actually located nearer Kingsdown) was used for aiding bomber navigation. The system involved the use of paired sites (located at considerable distance apart), one site tracking and guiding the trajectory of the bomber aircraft on a constant arc, with the second determining when to release the payload. The system allowed for accurate plotting and bombing of targets. The concrete access road, hut bases and mast bases all survive at the site.

3.350 Bombing Decoys were deployed in the Second World War to lure enemy aircraft away from their intended targets and to trick the pilots into dropping their payloads onto the wrong location. Bombing decoys were deployed to draw enemy planes away from major centres of population, from airfields and ports and from other key strategic sites such as oil refineries. Six bombing decoys are known to have been established in the District, with examples at Ash Levels, Wootton, West Langdon (two sites), Sandwich Flats and Worth. The bombing decoys at Ash Levels and Wootton acted as night-time decoys for the airfields at RAF Manston and RAF Hawkinge respectively. The **Ash Levels Decoy Control Bunker** survives, but nothing is known to survive at the Wootton site. The decoy sites at West Langdon were assault bombing decoys, designed to imitate a small military camp or convoy (again at night). These night-time assault bombing decoys were insubstantial affairs (possibly designed to be mobile) and nothing is known to survive on the ground. The Sandwich Flats and Worth decoys were entirely mobile and would have been moved and deployed across the marshes and coastline in the Sandwich Bay and Lydden Valley areas. These decoys were designed to imitate coastal features at night. Due to their lightweight mobile nature no surviving remains are known.

3.351 The development of the German V1 flying bomb brought with it a new aerial threat from June 1944. In response to this new threat Britain's aerial defences were re-organised as part of **Operation Diver.** The diver plan was conceived in early 1944 and involved the use of layered anti-V1 defences, employing bomber, fighter aircraft, searchlights, radar and anti-aircraft positions. Air-defences were redeployed with guns formed into a series of blocks or cordons. A 'Coastal Gun Belt' was established running from St Margaret's all the way to Newhaven in East Sussex. New heavy gun positions employed in the coastal belt were of relatively light-weight construction, involving the use of simple 'pile-type' platforms constructed using railway sleepers bedded in a shallow pit/trench. Accommodation took the form of tents, Nissan huts, scaffold

structures and trench shelters. As such even the heavy gun positions for operation diver were relatively light-weight sites and any remains would be ephemeral. No above ground remains are known in the District, although buried remains may survive. Gun operations rooms for Operation Diver are recorded as being established at Sandown Castle (The White House) and Dover Castle.

Anti-invasion defences

3.352 A German invasion of Britain was believed to be immanent after the evacuation of Allied troops from the beaches of Dunkirk. Defences to counter such an invasion force were rapidly thrown up along the coast, especially at points considered to vulnerable to landing. In land the anti-invasion defences were designed to counter 'blitzkrieg' type tactic that the German army had so successfully employed on the continent. To support the physical anti-invasion defences groups of Local Defence Volunteers (latterly known as the Home Guard) were formed.

3.353 For any German invasion to succeed it would have been necessary to land both troops and equipment at locations along the coast. The emergency coastal batteries provided artillery protection at ports and

Figure 20 Home Guard patrol on the cliffs between Dover and Folkestone. © IWM (H 8111)

likely landing positions and these were supported by a 'coastal crust' of defences designed to provide a physical barrier to the landing of troops. On beaches and along the coast **barbed wire entanglements** and **anti-personnel mines** were laid. These were quickly cleared following the Second World War. Piers, such as that at Deal, were considered to be ideal for the landing of troops. In the event Deal Pier was destroyed in 1940 having been struck by the Dutch vessel *Nora*. The *Nora* had been anchored off the Deal coast when it was struck and heavily damaged by a magnetic mine. The vessel was towed to the shore and beached some 50 yards to the south of the pier (against the advice of local fishermen). On the rising tide the *Nora* was lifted from the beach and washed and battered against the pier, eventually causing a large section to collapse. The army, on the personal orders of Winston Churchill, subsequently demolished the remains of the pier. The present pier is a post war replacement.

3.354 Other coastal defences were erected to prevent the landing of tanks and amphibious vessels. These defences involved the use of **scaffold fences** erected at the low water mark, lines of **anti-tank cubes** and **anti-tank mines**. **Pillboxes** were erected along the coast overlooking beaches and landing points and sand-bagged positions were erected to provide cover for infantry defence. Examples of such coastal pillboxes survive along the coast to the north of Deal, whilst at Walmer Castle a Type 24 Pillbox, anti-tank rails/girders and an anti-tank wall all survive. Further along the coast from Walmer

Figure 21 *Members of the Home Guard defend a roadblock using 'Molotov cocktails', during exercises in the Dover/ Folkestone area, March 1941. © IWM (H 8127)*

Figure 22 *Anti-tank obstacles in Dover harbour*

a Type 28 'anti-tank' pillbox survives overlooking the beach at Kingsdown and at St Margaret's Bay there is a pillbox and tunnel system with a machine gun position in the cliffs designed to allow machine gun fire across the beach. Anti-tank cubes and flame warfare apparatus defended the road up from the beach. To the south of St Margaret's the combination of the imposing White Cliffs and heavily armed coastal defence batteries provided ample defence from invasion.

3.355 There were a large number of Pillboxes erected along the front at Dover, however the majority of these have been removed. Of the surviving pillboxes at Dover the most are on higher ground overlooking the town, with many being non-standard square structures. These square pillboxes, often known by their modern name - 'Dover Quads', are seemingly unique to Dover. They were built to a special design by Major Vandeleur and are referred to in contemporary accounts as **pagoda pillboxes**. A line of anti-tank blocks, three deep, survive on the concrete apron at the former train-

ferry dock in Dover's Western Docks, whilst other examples can occasionally be seen exposed by the tides near the Eastern Docks. To the west of Dover the impenetrable White Cliffs and coastal batteries again provided ample defence against invasion.

3.356 In-land defensive thinking initially took the form of fixed layered defences in the form of Stop-Lines, later supported by defended 'nodal points' (defended localities) and anti-tank islands. The major stop line in the District was the **Corps Stop-Line** that ran from Dover to Whitstable. Other minor stop-lines in the area were erected across the Ash Levels (on an East – West alignment to the north of Ash and Sandwich) by 'improving' existing drainage ditches, whilst an entirely new line was constructed between Capel and Folkestone. The 'improved' ditches of the Ash Levels line survive and can be traced. The main defended centre in the District was the town of Dover, however other 'nodal points' were established at Temple Ewell, Lydden, Eastry, Sandwich, Ash and Wingham. The primary aim of the anti-invasion defences was to slow and restrict the movement of tanks. Experience on continental Europe had shown the German's preference for using main roads for their attacking thrusts and main road routes were also heavily defended.

3.357 The Corps Stop Line primarily followed the Dover to Canterbury railway line as the basis of the defensive line, making use of existing embankments and cuttings as

Figure 23 Walmer Type 24 Pillbox
Figure 24 St Margaret's Bay – a machine gun position in the cliff designed to defend against a landing on the beach
Figure 25 Dover Quad Pagoda Pillbox on the Western Heights

26

a ready made anti-tank obstacle. Pillboxes were strategically located along the stop-line, with a number of examples surviving. At Shepherdswell and Adisham for example there are surviving examples of Type 28 'anti-tank' pillboxes overlooking the railway line and Type 24 'infantry' pillboxes survive including examples at Temple Ewell and Aylesham. Additional defences were positioned to deny the enemy use of bridges crossing the railway line. Road-blocks, anti-tank buoys, anti-tank mines, pillboxes, anti-tank blocks, entanglements and gun positions were all employed to provide additional defences at bridge locations. The parapet walls on many bridges were removed to avoid giving cover to enemy troops. As a last resort bridges would have been pre-prepared for demolition through the use of explosive charges.

3.358 The road bridge over the railway line between Shepherdswell and Woolage village retains a number of such defensive features. Here two sets of anti-tank pimples survive to stop enemy tanks bypassing the bridge, anti-tank rail survive also at the side of the bridge, whilst on the road-bed of the bridge the concrete sockets into which steel rails could be inserted can also be clearly seen. A series of slit trenches are also understood to survive close the bridge. At Adisham where the railway line crosses over the bridge a pillbox has been built into the arches of the

27

Figure 26 *Scars for road blocks on a bridge over the Canterbury to Dover Railway Line*
Figure 27 *Anti-tank pimples adjacent to the Dover to Canterbury railway line at Woolage*

28

bridge.

3.359 Numerous other anti-invasion defences survive across the District, the commonest being pillboxes. Whilst numerous pillboxes have been lost since the war there are still a wide variety surviving. The most common variety are to the Type 24 design (both locally and nationally), but examples of Type 22, Type 23, Type 26 and Type 28 style boxes all survive within the District. Examples of anti-tank buoys, anti-tank pimples and roadblocks all survive in the Dover area.

3.360 At Dover Castle an anti-tank embrasure has been built into the curtain wall, disguised as part of the medieval defences. This embrasure commanded the road from Dover to Deal. The Castle along with Fort Burgoyne and the Dover – Deal Railway line were connected via anti-tank ditches to provide defences on the western side of the town. A Type 28 'anti-tank' pillbox survives on the western side of the castle at Horse Shoe Battery whilst sections of anti-tank ditch survive at the Danes Playing field where a concrete field gun emplacement is also located. Large anti-tank blocks and a Type 24 pillbox are also located close-by.

3.361 A series of anti-tank defences would have similarly defended the western approaches to Dover along the Folkestone to Dover road where anti-tank guns, road-blocks and minefields were known to have been deployed. None of these are now know to survive on the man Dover to Folkestone road, although two sets of socket scars for anti-tank rails as well as anti-tank blocks do survive along Bunkers Hill on the road from St Radigund's. Whilst none of the road-blocks or anti-tank blocks are known to survive along the old Folkestone road there are a series of surviving pillboxes in the Farthingloe/Winless Downs area which would have overlooked these routes. Further towards Folkestone a substantial anti-tank stop-line incorporating ditches and extensive lines of anti-tank pimples can be seen on war-time aerial photographs running from the cliffs at Capel towards Folkestone, although nothing is known to survive of this stop-line on the ground.

3.362 The Petroleum Warfare Department was established in the summer of 1940 with the aim of developing weapons and tactics for the use of petroleum warfare to counter invading German troops. Such flame defences were set up across the District, often under the auspices of the Home Guard. Flame defences were deployed both on the coast as well as in land, for example at St Margaret's Bay a flame fougasse trap was installed on the road up from the beach, whilst explosive barrels were positioned to be tipped from the cliffs onto the beaches below. Remains of a **Flame Defence Trap** survive in Walmer, built into a wall on the side of the main Deal to Dover road. The trap consists of a series of regularly spaced projecting pipes fed from tanks to the rear of the wall from which a flammable oil/petrol mix could be sprayed

29

Figure 28 Embrasure for an anti-tank gun built into the curtain wall at Dover Castle. © Ben Found

Figure 29 Possible remains of a petroleum warfare installation near Connaught Barracks, Dover

across the road. A Flame Fougasse is understood to survive at Connaught Barracks close to the junction between the Deal and Guston roads.

3.363 As well as Flame Defence traps the Home Guard would have manned other defences in the event of invasion. These would have included **Blacker Bombard (spigot mortar) emplacements**. This was a type of anti-tank weapon commonly issued to the Home Guard and surviving spigot mortar emplacements within the District include examples close to South Foreland Battery, at Horseshoe Bastion (Dover Castle), Mote's Bulwark and near Kingsdown Road at Hogg's Bush. Other field gun positions were set up across the District, with a good example surviving at Long Plantation near West Studdal Farm.

Civil defence

3.364 *The Air Raid Precautions (ARP) Act* of 1937 provided the framework for civil defence in the District in the Second World War. The major threat to the civilian population was through aerial bombardment, both from bombs dropped by plain and through cross-Channel and coastal shelling. To protect the civilian population air-raid warning sirens and black-out provision was put in place under the control of local ARP Wardens. These Wardens operated from dedicated ARP Wardens posts. These posts were usually provided in adapted buildings, although purpose-built warden's posts were also constructed. The **Priory Road ARP Wardens Post** is a Listed Building, whilst a second post is believed to survive on Pilgrim's Way.

3.365 **Air-raid shelters** were provided both privately and at home. The ubiquitous Anderson Shelter was the most common type of purpose built domestic shelter, although other proprietary designs existed. The Anderson Shelter was issued in huge numbers and there are numerous examples surviving in the District. Private cellars and basements were also often used for shelter during air-raids, sometimes with rudimentary reinforcement. Public shelters were also constructed at factories, schools and in public open spaces for use by the general public. There are numerous examples of such shelters surviving in the District. Purpose built shelters generally took the form of either covered trenches at relatively shallow depth and often built from pre-fabricated sections or brick and reinforced concrete surface shelters. Such shelters were not designed to withstand a direct hit. In Dover use was made of numerous existing tunnels cut into the chalk along Snargate Street and East Cliff. The greatest concentration of air-raid shelters in the District is in Dover.

Statement of Significance

3.366 The District of Dover contains a wealth of defences of Second World War date. Large concentrations of such defences are focussed on the town itself as well as on the cliffs immediately to the east and west of Dover. Dover's position on the Channel Coast and only a short distance from France meant that it was at the centre of East Kent's 'Hellfire Corner'. The early twentieth century was one of rapid technological advance – telephony, radio and radar brought new means of communication, long-range detection and directing gun-fire; whilst cross-Channel guns, powerful battle tanks and flying rockets brought new threats to military and civilian targets. All of these technological changes are represented to a greater or lesser extent in the range of surviving Second World War heritage assets surviving in the District. These assets are valuable on their own, but together as a group are of **outstanding significance**.

Evidential Value

3.367 Although there has been

considerable research undertaken on the Second World War defences in the District in recent years, there is still much to be learnt. Many of the defences of the Second World War were hastily and rapidly thrown up and as such were often not documented in detail. There are also elements that have been lost and forgotten, having either been removed immediately after the war (when materials and in particular metals were a valuable commodity) or in the intervening years as part of 'eyesore clearance' programmes. Recent studies such as the Defence of Britain project and Kent County Council's Defence of Kent programme have helped improve our understanding of the Second World War defences of the District. It is likely that there are numerous unrecorded sites as well as buried archaeological features which could have a strong evidential value in their ability to further improve our understanding of the military and civil defence of the District.

Historical Value

3.368 The Second World War defensive remains have strong historical associations and illustrate and reflect events at a national

and international level. The large numbers of anti-invasion defences in the District are a ready reminder of the imminent threat of invasion that the country faced following the withdrawal of Allied troops from the beaches of Normandy. The defences at the Danes Recreation Ground for example are a significant survival, which includes a wide range of anti-invasion measures in one location; they are a clear and easily accessible illustration of the type of anti-invasion defences that were deployed during the war. Technological advances are also well represented in the District, for example the remains of Swingate radar station demonstrate the advances that were made in early warning systems in the inter-war period and illustrate the historically important role that radar played in the Battle of Britain.

3.369 During the war important military figures and dignitaries regularly visited Dover. The underground tunnel complex at Dover Castle have strong historic associations with Admiral Sir Bertram Ramsay and the famous Evacuation of Dunkirk, whilst the cross-Channel guns to the east of the Castle were erected under the personal orders of Winston Churchill and one of the guns (Winnie) named for him.

Figure 30 *ARP searching shell damaged house in Dover. © IWM (HU 86164)*

Figure 31 *Winston Churchill viewing activity in the Channel from an observation post at Dover Castle during his tour of defences, 28 August 1940. © IWM (H 3499)*

Aesthetic Value

3.370 The need to erect defences rapidly at a time when resources and material were in short supply means that, understandably, the Second World War remains in the District are largely utilitarian in their appearance and are often perceived to be of limited aesthetic value.

Communal Value

3.371 The fortifications at Dover have an important social and commemorative value as a reminder of the role of that the District played in the Second World War. The surviving remains provide a strong visual and physical reminder of Dover's role in the war and provide a link between the community and its recent past. The surviving remains act as a visual memorial to the losses that the people of Dover suffered during the war and of the bravery of those who manned the defences.

Vulnerabilities

3.372 The District's Second World War defensive heritage assets were erected rapidly in a time of crisis. They were not built to be long-lasting or aesthetically pleasing structures, rather to respond to a very real and immediate threat. The remains are often located in remote locations and options for re-use beyond their initial defensive roles are generally limited. Whilst some of the District's Second World War defensive heritage is protected by designation, the majority is not and this makes them especially vulnerable to change.

3.373 The pillbox is perhaps the most publicly recognisable Second World War defensive structure of which there are numerous examples located across the District. The vulnerabilities facing pillboxes provide a good case study for the issues facing other Second World War defensive structures. Although pillboxes are solidly built concrete and brick structures some examples are starting to show signs of decay from weathering and neglect. Whilst their "wartime concrete" construction is generally quite resilient, once decay sets in they can start to deteriorate rapidly. Once neglected pillboxes often become overgrown and can act as a focus for low-level vandalism, graffiti and other anti-social behaviour.

3.374 Although some pillboxes have found alternative uses they are generally left abandoned and have no modern use. Where they fall within the gardens of residential properties some pillboxes in the District have been reused as garden stores/sheds, whilst elsewhere in the country they have been converted to bat-roosts (although this generates its own issues regarding future access). Their solid construction means that they are difficult to demolish, nevertheless they are vulnerable to loss, both through development and other clearance works. Other less solid and more easily moved Second World War defensive structures are

Figure 32 Merchant Navy Day Commemoration Dover. © Dover District Council
Figure 33 Pillbox at St Margaret's Bay

at even greater risk from such demolitions. Second World War heritage assets were generally purposefully located at specific points within the landscape and this is where much of the assets true significance lies. As such the assets are not just vulnerable to physical change; they are also vulnerable to changes to their setting and outlook.

Opportunities

3.375 The District's Second World War heritage assets are an emotive reminder of our recent past; it is also a period of history that generates immense public interest. This interest has increased dramatically in the past thirty or so years. The popularity of the wartime exhibits at Dover Castle illustrates the interest in this period and the potential that they have to engage visitors and locals alike.

3.376 With the rich range of heritage assets surviving in the District there is an opportunity to develop the potential of this resource for locals and visitors alike. The *Discovering and Recording Kent's 20th Century Military and Civil Defences* project has started to look in detail at the surviving heritage assets and there is an opportunity for local groups and volunteers to build upon this work in order to better understand and present the District's wartime heritage. There are a number of significant assets located on the cliffs to the east and west of Dover in areas that are popular with walkers. At present the military heritage along the White Cliffs is often ignored and hidden away and opportunities should be sought to better present and interpret these remains, perhaps as part of military heritage trail in order to make better use of their recreational potential.

3.377 There are a number of significant historic assets in the District that have a group value as part of an extensive military landscape that should be identified and

34

Figure 34 Frontline Britain Trail

measures put in place to protect, enhance and interpret them. For example the surviving group of anti-invasion defences at the Danes Recreation Ground should be considered for designation as might the best-preserved examples of the District's HAA batteries and the surviving elements at the heavy cross-channel gun sites.

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Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
'Winnie' supernumeracy cross-channel gun	Earthworks and Buried Archaeology	None	Private Land	No
'Pooh' supernumeracy cross-channel gun	Historic Structures, Earthworks and Buried Archaeology	None	Private Land	No
Martin Mill Military Railway	Historic Structures, Earthworks and Buried Archaeology	None	Partially	No
Fan Bay coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	On National Trust Open Access Land	No
South Foreland coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	Open Access Land	No
Lydden Spout coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	Yes	No
Wanstone coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	No	No
Capel coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	Part on site of Battle of Britain Memorial, part Private Land	No
Hougham coastal battery	Historic Structures, Earthworks and Buried Archaeology	None	Private Land (Agricultural)	No
Sandwich Bay Emergency Coastal Battery	Historic Structures, Earthworks and Buried Archaeology	None	Not publically accessible	No
North Deal Emergency Coastal Battery	?Buried Archaeology (site developed with housing)	None	Private Land (Housing)	No
Deal Emergency Coastal Battery	?Buried Archaeology	None	Yes	No
Stag Point (Kingsdown)	?Historic Structures and Buried	None	Partially	No
St Margaret's Emergency Coastal Battery	?Historic Structures and Buried Archaeology	None	Private Land (Housing)	No
Western Heights Emergency Coastal Battery	Historic Structures, Earthworks and Buried Archaeology	Scheduled Monument and Conservation Area	Publicly accessible	Interpretation panel

Asset	Form	Designation & Protection	Accessibility	Interpretation
Bruce hypervelocity gun	Historic Structures, Earthworks and Buried Archaeology	None	Adjacent to publicly accessible track	No
Military Hill REME depot	Historic Structure	None	Private Land (Motor Repair Garage)	No
Port War Signal Station, Dover Castle	Historic Structure	Scheduled Monument and Conservation Area	Managed visitor attraction	English Heritage site
Swingate Light Anti-Aircraft	Historic Structure	None	Private Land (Agricultural)	No
Citadel Battery Type 23 Pillboxes	Historic Structure	Scheduled Monument and Conservation Area	Yes	No
Western Heights Battery Type 23 Pillboxes	Historic Structure	Scheduled Monument and Conservation Area	Yes	No
Aylesham Light Anti-Aircraft Gun shelter	Historic Structure	None	Private land	No
Lydden Hill Magazine	Historic Structure	None	No	No
Walmer anti-tank defences	Historic Structures	Anti-tank wall forms part of boundary to EH Registered Historic Park and Garden	Adjacent to Public Highway	No
St Margaret's Bay Pill Box and Machine gun position	Historic Structures	Conservation Area	Partially – from Public Beach	No
Dover Quad Pillboxes	Historic Structures	Various – some within Scheduled Monument and Conservation Area	Some	No
Corps Stop-Line	Historic Structures, Earthworks and Buried Archaeology	No - short section forms boundary to Conservation Area	Some sections	No
Danes Playing Field anti-tank ditches	Historic Structures, Earthworks and Buried Archaeology	None	Yes	No
Swingate Chain Home station	Historic Structures, Earthworks and Buried Archaeology	Listed Buildings	No	No
Sandwich Ground Controlled Interception station	Historic Structures, Earthworks and Buried Archaeology	None	Private Lane (commercial and agricultural)	No
Hawkshill Down Oboe Station	Historic Structures, Earthworks and Buried Archaeology	None	No	No

Asset	Form	Designation & Protection	Accessibility	Interpretation
Dover Priory ARP Wardens Post	Historic Structure	Listed Building	Adjacent to Public Highway	No
Ash Levels Airfield Bombing Decoy (Control Bunker)	Historic Structure	None	Private Land (Agricultural)	No
Walmer Flame Defence Trap	Historic Structure	None	Adjacent to Public Highway	No
Guston Road Flame Fougasse	Historic Structure	None	Yes	No

Appendix 1:
Theme 3.8 – Barracks

Theme 3.8 – Barracks

Summary

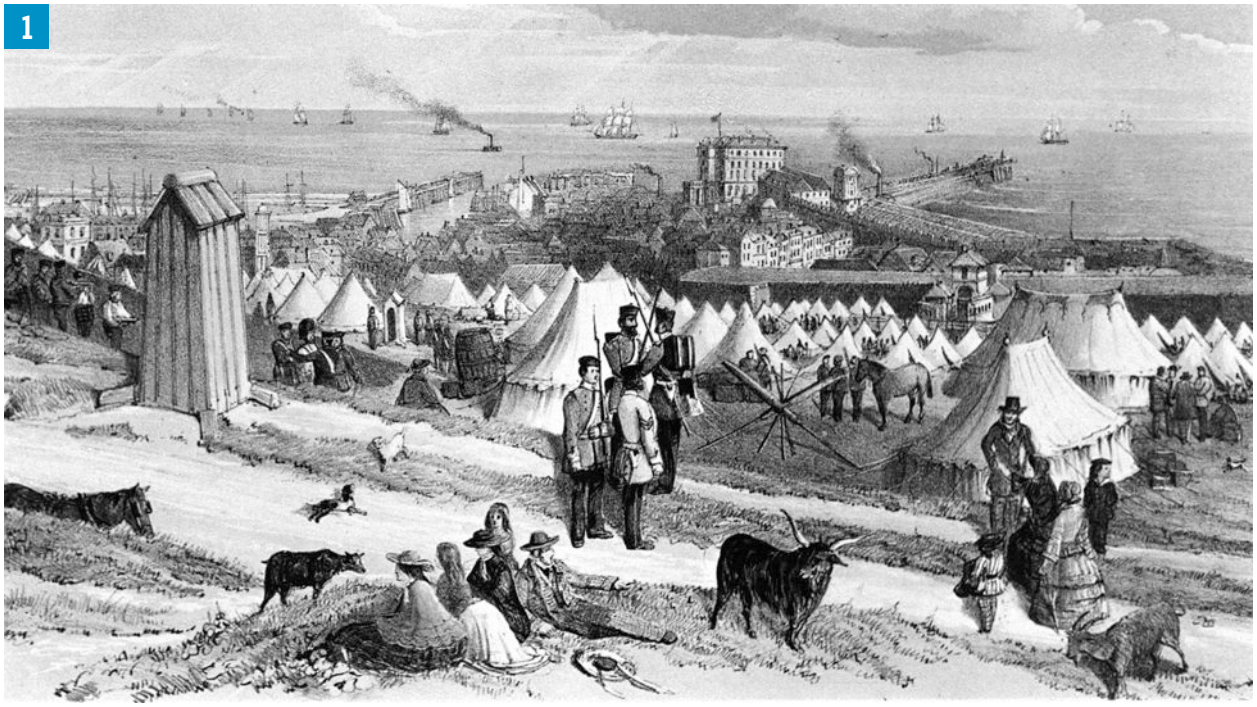
3.378 At their height Dover and Deal were major garrison towns, with numerous soldiers, officers, and military families being accommodated in various barrack accommodation. Purpose built barrack buildings dating from the eighteenth to twentieth centuries are represented in Dover District, ranging from modest buildings to enormous and unique underground complexes designed to house hundreds of men.

Introduction

3.379 Dover has a long military history, with forces having been stationed in the town and District from the Roman period onwards. These troops have been housed in a range of structures; from purpose built barrack blocks to temporary billeted accommodation. Although there is archaeological evidence for early barracks of Roman date at both Richborough and the Forts of the *Classis Britannica* at Dover these are not considered in detail here, instead this theme concentrates on the large scale barrack accommodation which developed in the District from the mid-eighteenth century onwards.

3.380 The oldest barrack building surviving in the District is the Keep Yard Barrack at Dover Castle. Constructed from 1745 these were built against the medieval curtain wall. Later in the century the rapid expansion and remodelling of fortifications in Dover in response to the Seven Years War and American Wars of Independence led to the construction of larger and more elaborate barrack accommodation. By the time of the Napoleonic Wars Dover was a heavily fortified town with a large permanent garrison housed at the Castle and at new barracks on the Western Heights. In the late eighteenth/early nineteenth century in response to accommodation pressures at the Castle a unique set of underground barracks and tunnels were constructed.

3.381 The coastline at Deal, which provided landing beaches and a safe anchorage, also remained vulnerable. In the eighteenth



Cover *Deal South Barracks have been converted into residential dwellings*

Figure 1 *View of soldiers and tents on the Western Heights looking towards the dock and the Archcliffe Fort. With insufficient Barrack accommodation in Dover troops had to camp in tents on the cliffs of the Western Heights. © Dover Museum (00460)*

century troops were billeted in accommodation across the town, however the perceived threat from France in the late eighteen and early nineteenth century led to the construction of more formal barracks for infantry and cavalry in the town. Such barracks would not only have provided troops for the defence of the realm in time of invasion, but also would have been used to suppress any domestic uprising – a real fear, in light of recent events in revolutionary France.

3.382 Dover Castle, the Western Heights and Deal continued to house troops throughout the nineteenth- and into the twentieth- century and additional barrack accommodation was provided at these sites. In the mid-nineteenth century there were growing concerns about the health and well-being of the common soldiers. In response to campaigners such as Florence Nightingale a Royal Commission was set up that produced a report in 1861 on '*Improving the Sanitary Condition of Barracks and Hospitals*'. This report led to changes to heating, ventilation, latrines and canteens at a number of the District's barracks. In 1869 the barracks at Deal were acquired from the Army by the Admiralty and became home to the Royal Marines. In the early twentieth century additional new barrack accommodation was constructed at Dover with the opening of Connaught Barracks (adjacent to the Castle and Fort Burgoyne).

3.383 Following the Second World War the number of troops garrisoned in the District declined. The Western Heights was vacated by the army in the 1950s and the Castle was abandoned as a barracks in 1958. The barracks at Deal were gradually abandoned in the 1980s and 1990s, finally closing in 1996. The last remaining barracks in the District to close was Connaught, which was vacated by the army in 2006 with the withdrawal of the Parachute Regiment from the town.

2

Description of the Heritage Assets

Dover Castle

3.384 The Castle at Dover has been used for accommodating troops since the medieval period onwards. Troops would have been accommodated within the grounds of the castle as well as being billeted in the town as required. By the late fifteenth century the Castle had entered a period of decline and was largely ignored as a defensive asset by Henry VIII, being largely used as accommodation for royal officials. By the late seventeenth century the Castle had been largely abandoned, occupied by only a small garrison housed in the Constable's Gate and some buildings within the inner bailey. In the late 1730s there was again growing recognition of the strategic importance of Dover and its harbour. The Castle was again to play an important role in the defence of the town and harbour and it was modified and improved to hold a large garrison. The **Keep Yard Barracks** were constructed in 1745 against the medieval curtain wall and

Figure 2 Keep Yard Barracks, Dover Castle. © Ben Found

the keep itself was refitted for the accommodation of troops. The Keep Yard Barracks are the oldest purpose built barrack accommodation in the District and form part of the Scheduled Monument of Dover Castle.

3.385 During the Napoleonic Wars the Castle at Dover was further fortified and improved. New barrack accommodation was required to house the increased garrison at the Castle however by the end of the eighteenth century space was limited. The decision was therefore taken to excavate a series of underground barracks, tunnelled at the Castle to accommodate officers and soldiers. These underground barracks, known as **Casemate Level**, are unique; being the only examples constructed in the country and was capable of housing some 2,000 troops.

3.386 For much of the nineteenth and twentieth centuries the Castle's primary function was for the accommodation of troops, with a substantial garrison being housed. A number of new barrack blocks and buildings were constructed in this period, many of which have subsequently been demolished. Surviving nineteenth and twentieth century barracks buildings include the **Officers' New Barracks** (a Grade II Listed Building of 1858), the **Regimental institute** (Grade II Listed, 1868), the Church Hall (1870), the Bread and Meat Store (1894), the **Royal Garrison Artillery Barracks** (1912).

3.387 The Church of St Mary-in-Castro was also rebuilt and restored by Sir George Gilbert Scott in the 1860s to act as the garrison church. Constable's Gate was refurbished and extended to provide senior officer's accommodation. Demolished barrack blocks in and around the Castle include Victoria Barracks and East Arrow Barracks and buried archaeological remains of such demolished barracks may survive. The terraces to the rear of the Officers' New Barracks (now the main visitor car-park) also contained further barrack buildings.

Fort Burgoyne, Connaught & Old Park Barracks

3.388 The artillery fortification of **Fort Burgoyne**, just to the north of the castle, was equipped with its own barrack accommodation in bombproof casemates within the body of the ramparts. The casemated barracks at Fort Burgoyne could accommodate some 270 men, with space for officers. The officers were provided with their

Figure 3 *Officers' New Barracks, Dover Castle. © Ben Found*
Figure 4 *St Mary-in-Castro before restoration by Sir George Gilbert Scott*
Figure 5 *Front of Casemate at Fort Burgoyne. © Capita*

6

own mess, kitchens and cellars and their accommodation was separate from the ordinary soldier. The men's casemates were provided with their own canteen, cookhouse, latrines, ablutions block and taproom. Within the fortification there was an open parade ground onto which the casemates opened. The casemate barracks at Fort Burgoyne survive in good condition, but are currently abandoned. The whole of the Fort including the casemate barracks and parade ground are a Scheduled Monument.

3.389 In the late nineteenth century a military training facility was established just to the south of Fort Burgoyne. To accommodate the trainees a series of huts, with cookhouse and stores were constructed. Some of these huts survived to the 1950s, but have all now been demolished. The site of these training huts was subsumed in 1912 into the newly constructed Connaught Barracks. The casemated barracks at Fort Burgoyne were abandoned once the new Connaught Barracks were completed and were subsequently used for administrative offices and stores. These Barracks were again rebuilt in 1962. **Connaught Barracks** itself covers and area of some 13.5 hectares and comprises of a range of barrack blocks of twentieth century date, alongside stores, mess-rooms and a parade ground. In addition to the barracks accommodation areas there is also adjacent land that was used for training purposes. Connaught was the last barracks in the District to close, being abandoned by the army in 2006.

3.390 Approximately 2 km. to the northwest of Fort Burgoyne is the site of **Old Park Barracks**. The Old Park Barracks was established in 1938 with the purchase by the War Department of the existing Old Park Mansion and Estate. By December 1938 the

7

Figure 6 *Casemated barracks and parade ground at Fort Burgoyne. © Capita*
Figure 7 *Surviving barracks building at Old Park*

barracks were under construction, being laid out on an integrated symmetrical pattern across the site. The buildings erected included a number of near-identical 3 storey H-plan barrack blocks in Neo-Georgian style together with a number of lesser accommodation blocks as well as married quarters, Sergeants and Warrant Officers Messes, a guard house, a gymnasium and a rifle range. The barracks when completed in 1939 occupied most of the Upper Park of the former Old Park Estate. The existing mansion was taken over and put into use as an Officers Mess. The barracks were modernised in the 1960s when the old mansion house was demolished, but were decommissioned and abandoned in the early 1990s. The majority of the barrack buildings have now been demolished, although some continue to be occupied, forming part of the Old Park Industrial Estate.

The Western Heights

3.391 The major fortification at the Western Heights required a significant garrison. To accommodate these troops accommodation was provided within the Drop Redoubt, at the Citadel and in the South Front Barracks and Grand Shaft Barracks.

3.392 The **Drop Redoubt** was constructed in 1803-1816 in response to the threat of invasion from the armies of Napoleon. Barrack accommodation at the Drop Redoubt was provided within bombproof casemates. The casemate accommodation at the Drop Redoubt was designed to accommodate some 200 common soldiers. The fortifications of the Western Heights were remodelled between 1858 and 1867 and additional barrack accommodation in the form of further, slightly more salubrious, casemates for officers was provided. In response to the recommendations of the 1861 Royal Commission report alterations were also made to the existing soldier's accommodation and new ablutions block and separate sergeant's accommodation were added.

3.393 Later alterations to the accommodation at the drop redoubt were minimal; the sergeant's quarters were latterly used as married soldier's accommodation and then as dining, recreation and reading rooms, whilst some caponiers were later used for accommodation. The drop redoubt barracks were used for accommodation until the end of the First World War. The casemates for the

Figure 8 *Barracks buildings at Old Park before demolition. © Canterbury Archaeological Trust*
Figure 9 *Officers' accommodation at the Drop Redoubt. © Explore Kent*
Figure 10 *Casemates at the Drop Redoubt*

Figure 11 *Principal Areas of barracks accommodation at the Western heights, Dover - A Citadel, B South Front Barracks, C Grand Shaft Barracks, D Drop Redoubt*

12

common soldier and officers both survive, but the sergeants' quarters and ablutions block have been demolished.

3.394 Soldier's accommodation was also provided within the **Citadel**, again in bombproof casemates, as well as in temporary hutted accommodation and later purpose built barracks buildings. Barrack accommodation was provided in the Short Casemates, the Long Casemates, West Face Casemates which were provided with their own ablution blocks and cookhouses. As with the casemates at the Drop Redoubt modifications were made to the accommodation in response to the 1861 Royal Commission report. The casemates barracks survive in varying states of preservation. Within the central area of the Citadel temporary wooden barrack accommodation was provided with separate block for the common soldiers and officer ranks. These buildings would likely have fallen out of use as space in casemates became available. The temporary barrack buildings were demolished before the 1820s.

3.395 To supply the Western Heights with water a well and pump-house was constructed in the Citadel. The Royal Commission report of 1861 highlighted the deficiencies of this well for the supply of the whole of the barracks and in the 1960s a new pump and boiler house was constructed over the original well to improve the supply. This pump house survives, as do some high level storage tanks. In the 1860s a new set of grander officer's quarters were constructed in a sunken area on the southern side of the

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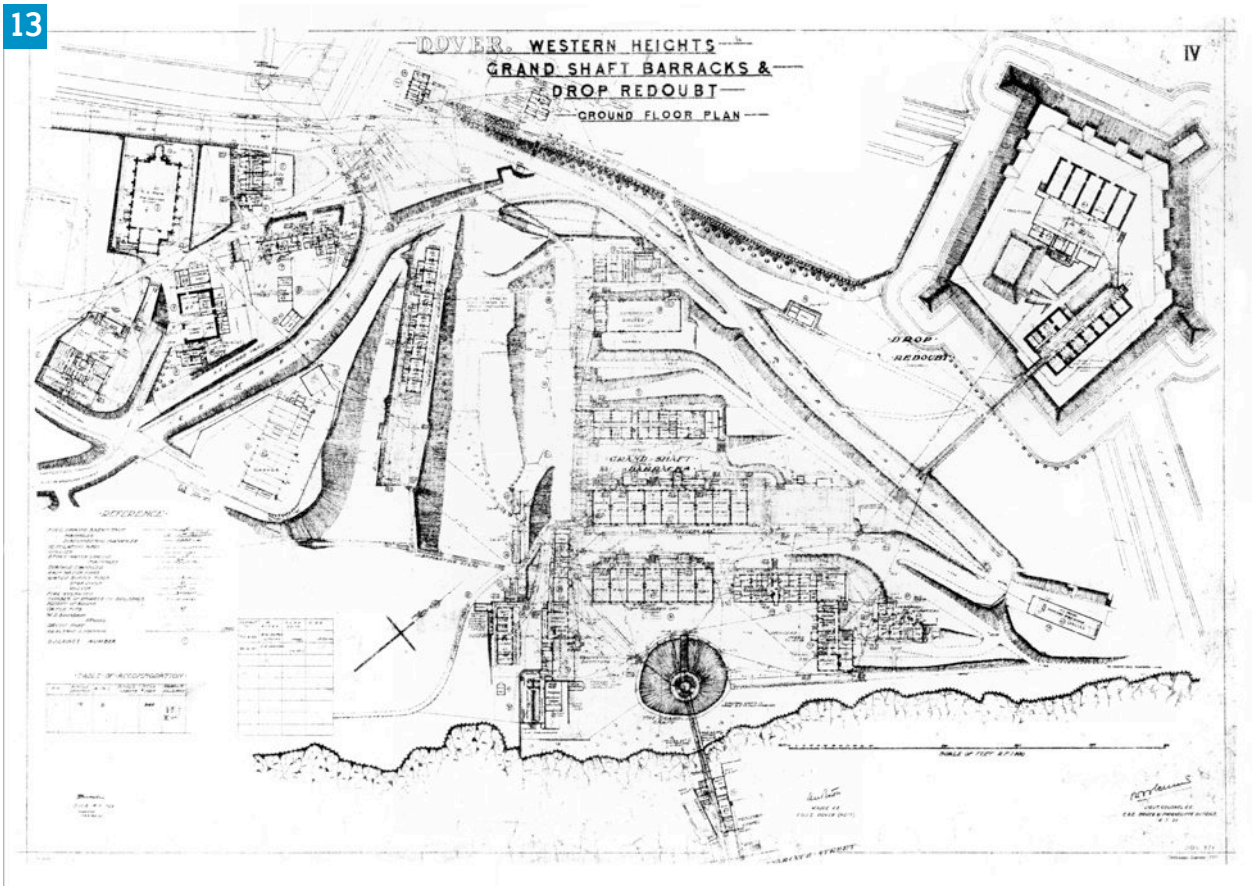

Figure 12 *Aerial view of the Citadel, which now houses an immigration removal centre*
Figure 13 *Plan of the Grand Shaft Barracks and Drop Redoubt*

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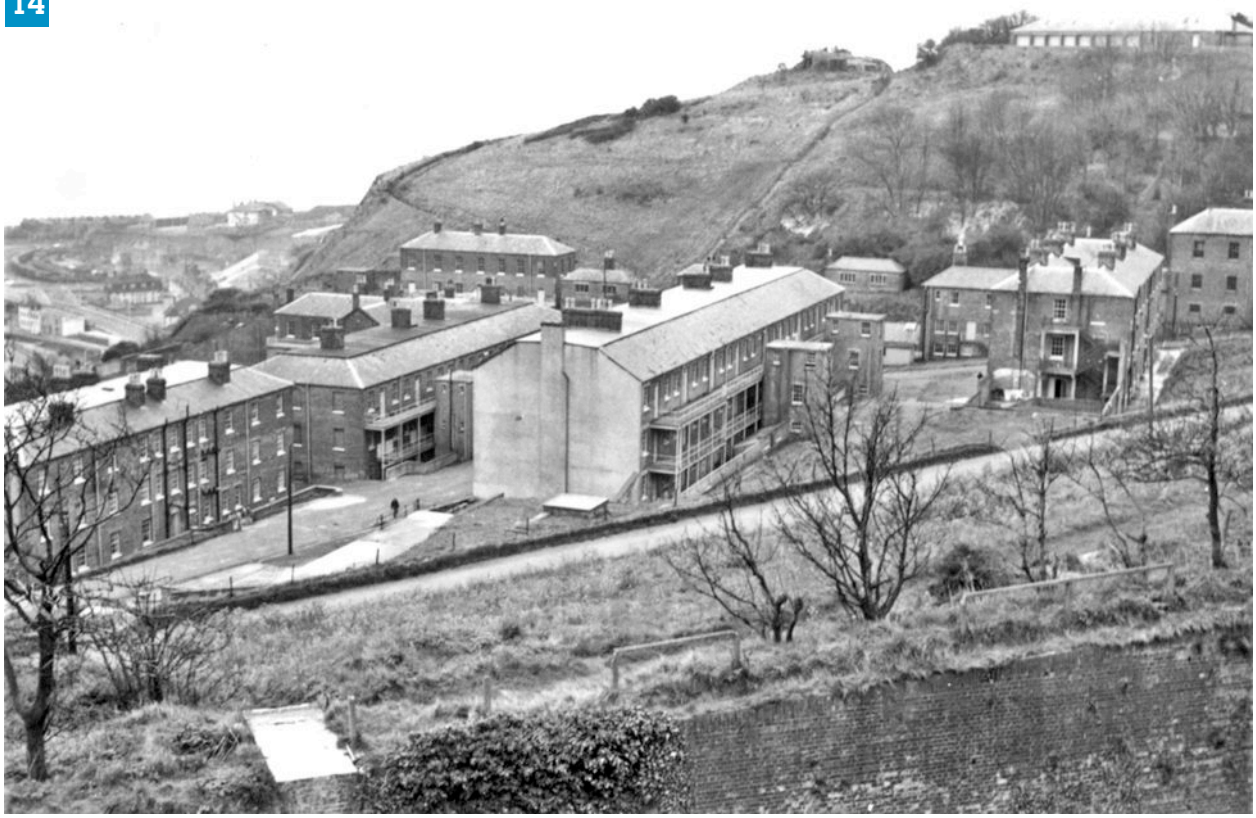

Citadel. Within the Officer's Quarters there was also accommodation set aside for the Commanding Officer. The Officer's Quarters survive in good condition and are currently used as an administration building for the Immigration Removal Centre. Other surviving barracks buildings at the Citadel include a Canteen of *c.*1860 (later modified in 1913 as a Recreational Establishment), Sergeant's Mess of 1898 and a Dining Room of 1927.

3.396 Further accommodation was provided for troops between the Drop Redoubt and the Citadel. The **Grand Shaft Barracks** were constructed from 1804 to the south of the Drop Redoubt. These barracks were not constructed in casemates, but instead took the form of a series of three and four storey accommodation blocks, constructed in a series of terraces. The Grand Shaft Barracks were designed to hold a complement of 700 infantrymen, in addition to the 800 being housed within the Citadel and Drop Redoubt. This infantry regiment would have been tasked with defending the docks and town as well as the Heights themselves. In order to allow the troops garrisoned in the barracks to be quickly deployed in the town and docks a helical triple staircase was constructed in the barracks parade ground. This staircase was known as the Grand Shaft.

3.397 Separate quarters were provided at the barracks for Soldiers, Officers, Field Officers and Staff Sergeants. There were also washhouses, cookhouses, a canteen and stables as well as a separate mess for Officers. Additional buildings including married soldiers' quarters, a gymnasium, church, school and laundry were added to the

15

Figure 14 *Grand Shaft Barracks viewed from the Drop Redoubt. © Dover Museum*
Figure 15 *The Garrison Church, now demolished, at the Western Heights. © Dover Museum*

barracks as a result of the 1861 Royal Commission Report. There were limited additions to the barracks in the later nineteenth century as well as during the Second World War (to replace bomb damaged accommodation).

3.398 The barracks were decommissioned in the 1960s and were subsequently demolished, with the last buildings being removed in 1997. The site now survives as a series of terraces which clearly mark the position of the former barrack ranges. Some low sections of walling belonging to the barracks can still be seen and it is likely that some below ground remains will survive. The Grand Shaft, which connected the barracks to the town, has been restored and is periodically open to the public.

3.399 When the defences of the Western Heights were upgraded in the 1860s a new set of barracks, known as the **South Front Barracks**, were constructed. The main building of the South Front Barracks was a large casemated barrack block built within a ditch to the south-east of the Citadel, with further conventional buildings built to the rear of the casemates. The casemated barracks held both officers and ordinary soldiers, whilst a separate block was built for Married Soldiers and Warrant Officers. A Canteen and Laundry was also provided. The barracks fell out of use between the wars, although some buildings may have been brought back into operation during the Second World War. At the end of the 1950s the casemates, married soldier's quarters and most of the rest of the buildings were demolished. The site of the casemated barracks can be made out as a large level area (now concrete hard-standing and

Figure 16 The Grand Shaft. © Canterbury Young Archaeologists' Club
Figure 17 South Front Barracks before demolition. © Dover Museum
Figure 18 South Front Barracks during demolition. © Dover Musem

warehousing) with some built elements surviving against the rear. Buried remains of the casemated barracks might also survive. Most of the buildings on the terraces to the rear of the casemates have been demolished, although buried elements may be expected. The No 2 and No 3 Warrant Officer's Married Quarters of late nineteenth century date survive as does the derelict late nineteenth century Victoria Hall (erected as a CofE Soldier's Home). Other barrack accommodation at the Western Heights included the Western Outworks Casemated Barracks and the Bungalow Barracks.

Deal and Walmer

3.400 Deal and Walmer once housed significant garrisons, with barracks once covering an area of nearly 18 hectares. Construction of the barracks at Deal and Walmer began with the building of the Cavalry Barracks in 1794. A set of Infantry Barracks were subsequently built adjacent to the Cavalry Barracks in 1795 with the two later becoming known as the South Barracks. A military Hospital was built adjacent to the South Barracks, which later became Deal North Barracks, whilst the East Barracks were originally built as a Naval Hospital. In the 1860s the North, East and South Barracks were taken over by the Admiralty and were used to house the Royal Marines. The site later became the home to the Royal Naval School of Music from 1930, becoming the Royal Marines School of Music in 1950. The school closed in 1996 when the barracks were given up by the military.

3.401 The Infantry and Cavalry Barracks at the **South Barracks** were co-located adjacent to each other. The Cavalry Barracks, which was constructed first and comprised a range of buildings (including stables, accommodation for officers and men, canteen, cook-house, ablution blocks, hay barn and farrier's shop) arranged on the north-east, north-west and south-east sides of a parade ground. The whole barracks were enclosed within a brick boundary wall. The south-western side of the parade ground was formed by this brick boundary wall, which separated the Cavalry Barracks from the Infantry Barracks. Part of the boundary wall surrounding the Cavalry Barracks survives, as does one of the accommodation/stable blocks, which is now a Grade II Listed Building. The Infantry Barracks were also located within walled area, with a large open parade ground and buildings along the north-western boundary. The principal buildings included Officers' Quarters and Mess, Soldiers' accommodation, cookhouses and latrines. The accommodation blocks and one of the original kitchens survive and are all

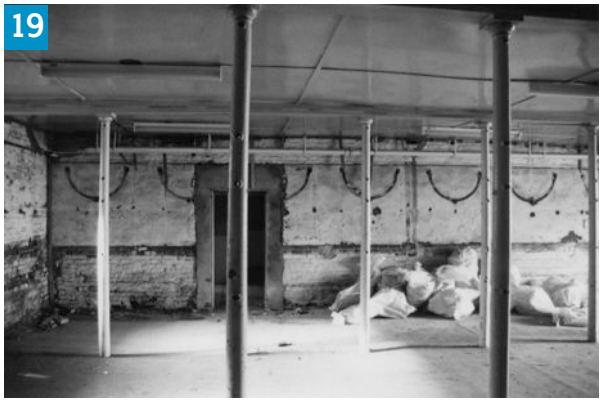

Figure 19 *Interior of the South Barracks before conversion. © Canterbury Archaeological Trust*

Figures 20 & 21 *Deal South Barracks have now been converted into an attractive complex of residential dwellings. © Dover District Council*

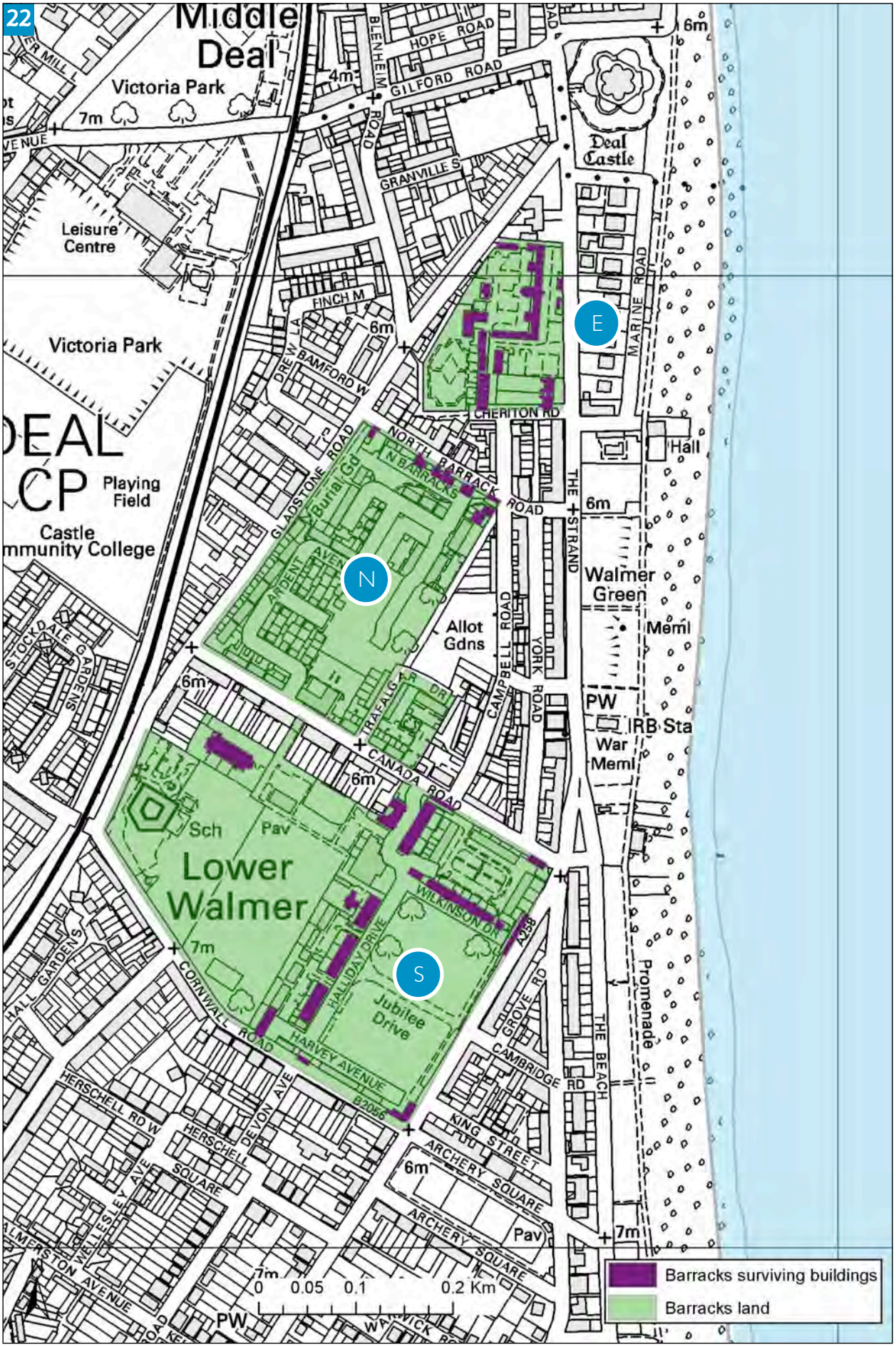

Figure 22 The North (N), South (S) and East (E) Barracks at Deal

Grade II Listed Buildings. The barracks enclosure wall also survives and the main gated entrance is also Grade II Listed. The Infantry Barracks at Deal are probably one of the most complete infantry barracks dating from the Napoleonic Period in the country.

3.402 Following the acquisition of the Cavalry and Infantry Barracks by the Admiralty in the 1860s the site became known as the South Barracks. A small area of additional land for the South Barracks was acquired in 1880 and in 1896 a large new Drill Field was added. The main buildings of the Infantry and Cavalry Barracks were retained and additional buildings, including a Grade II Listed guardhouse and a new garrison chapel were constructed. The general form of the extended barracks survives, including much of the large open drill ground. The whole of the South Barracks complex is designated as a Conservation Area.

3.403 The core of the **North Barracks** was established in 1795 as a military hospital with separate dwelling houses for military or attending surgeons. As with the South Barracks, the North Barracks were enclosed within a boundary wall, sections of which survived. The hospital would appear to have been converted, at least partially, to barrack accommodation by the first decade of the nineteenth century. None of the hospital buildings survive, but a row of Officer's or Surgeon's Houses survive along the north-eastern boundary of the site and these are all Grade II Listed (as is the adjacent section of Boundary Wall). A Guard House at the north-west corner of the hospital site is also Grade II Listed, whilst there is also a surviving detention quarters (not Listed). In 1809 a plot of land was added along the north-western boundary for use as a burial ground. The burial ground is now an open grassed garden, with the former grave markers now erected around the edge of the plot. In 1857 a further area of land was acquired adjacent to the southern corner of the hospital site for the construction of a chapel and school (both now demolished).

3.404 As with the South Barracks, North Barracks was acquired by the Admiralty in

Figure 23 Former buildings of Deal North Barracks. © Canterbury Archaeological Trust

1869 for use by the Royal Marines. The North Barracks were little altered after acquisition by the admiralty until the 1880s when an additional strip of land was acquired along the south-west and north-west sides of the former military hospital. An extensive rebuilding programme was carried out between 1895 and 1907 when the site was completely remodelled. The Barracks were further remodelled immediately post-war and have now largely been demolished and redeveloped for housing.

3.405 The **East Barracks** also have their origins as a hospital, originally owned privately and from 1796 as a Naval Hospital owned by the Admiralty. The original hospital buildings were demolished in the early nineteenth century, having been struck by lightning in 1809. New hospital buildings were erected in the first part of the second decade of the nineteenth century and the plot of land extended in 1812 for more buildings and an extended burial ground. The new hospital and ancillary buildings were surrounded by a boundary wall. The hospital was briefly leased to the war department for use as barracks in the mid-nineteenth century, but had become a Royal Marines Depot and Hospital for the Admiralty by 1861. From 1901 the site was used as Royal Marine Barracks. A number of buildings were altered at this time, but there were relatively few new additions.

Figure 24 Deal East Barracks

3.406 A number of the buildings of the early nineteenth century hospital survive, including the main range, entrance lodge (plus walls and gates), the Governor's, Physician's and Surgeon's Houses, and Cookhouse, which are all Grade II Listed Buildings. Other later buildings such as a late nineteenth century concert hall, workshop, stables, stores and garages also survive at the site, which lies within the Walmer (Seafront) Conservation Area.

Statement of Significance

3.407 Although they no longer contain a military presence Deal, Walmer and Dover once housed significant garrisons and this is reflected in the number of barracks that were once present within them. Some of the surviving barrack buildings, such as the substantially complete and relatively unaltered infantry barracks at Deal and the unique underground barracks at Dover Castle are of **considerable to outstanding significance**. The presences of such military barracks within the towns have also played a significant role in shaping their development and history. It should be noted however there have also been a number of significant losses, with barrack buildings at Deal North Barracks, Old Park Barracks, South Front Barracks (Western Heights) and many of the barrack buildings in and around Dover Castle for example having been demolished. Overall the surviving remains of the military barracks within the District are of **moderate to considerable significance**.

Evidential Value

3.408 There are surviving military barracks at Dover dating from the mid eighteenth to late twentieth centuries. Detailed and systematic analysis of the fabric of the standing buildings as well as investigation of buried archaeological remains at such barrack sites could reveal considerable evidence for the development of barracks in this time period, changes that were made to improve conditions and of the general health and lifestyle of the soldiers based there. There may also evidence for other occupants of barracks, such as service men's wives and children who are rarely mentioned in contemporary military records.

Historical Value

3.409 The history of the military barracks within Dover illustrate the developments in British military accommodation in a period when it expanded its reach and influence around the globe and became a dominant military force on the world stage. Dover, Deal and Walmer were significant military garrisons and substantial barracks were established to house the men based there. The range of surviving barrack buildings in the District illustrates these developments in military accommodation and in particularly the changes of the mid-nineteenth century when there were changing attitudes towards the life and conditions of the common soldier.

Aesthetic Value

3.410 The aesthetic values of barrack accommodation within the District are mixed. Some accommodation such as the casemated barracks at the Drop Redoubt, Citadel and Fort Burgoyne are largely buried structures, designed to provide protection from artillery fire, but with limited architectural or aesthetic consideration. The buildings at Connaught Barracks are likewise generally functional in their appearance. Other buildings, particularly those free-standing above ground blocks for officers are more decorative in their treatment and contain aesthetically interesting details. This is exemplified in the external treatment of the officer's quarters at Deal Infantry Barracks, which features (in contrast to the plainer soldiers' accommodation adjacent) a wide pediment, decorative cornices, recessed clock, louvered cupola and pedimented entrance porches. Other deliberately more decorative barrack buildings include the Officers' New Barracks at Dover Castle which are the work of the English architect Anthony Salvin, who is well known for his works at a number of castles.

Communal Value

3.411 The surviving barrack buildings within the District provide a social reminder of the past importance of towns such as Dover, Deal and Walmer as homes to garrisons. The Royal Marine Barracks were the subject of an IRA bomb attack in 1989, which resulted in

Figure 25 Royal Marines Memorial at the former Deal North Barracks

the loss of 11 members of the Royal Marines Band Service. There is a strong emotional association and affection felt within Deal towards the Royal Marine Band Service. A memorial garden on the site of the explosion, the bandstand on Walmer Green and the surviving barrack buildings provide a physical reminder and commemorative link to those who lost their life in this attack.

Vulnerabilities

3.412 Some of the District's historic barrack buildings have a current and long-term use. These include the recently redeveloped barracks at Deal and examples within Dover Castle. This along with statutory protection has minimised the vulnerability of these assets. Those barrack sites that do not currently have a current use such as at Fort Burgoyne and the Western Heights are significantly more vulnerable and this is reflected in both Fort Burgoyne and the Western Heights being listed on English Heritage's *Heritage at Risk* register. The Western Heights fortifications are identified as being as one of English Heritage's top-ten priority sites of those listed in register for the south-east.

3.413 Those barrack buildings and complexes that do not have a current or sustainable use are vulnerable to neglect, decay, and vandalism. Without long-term maintenance and repair programmes this could lead to serious deterioration of the fabric of these assets. Lack of maintenance, uncontrolled vegetation growth, weathering and the effects of heritage crime have already had a negative effect on some on some assets. Those buildings, which are currently vacant or neglected, present a number of challenges in securing a long-term and viable future. The size of some of the District's barrack buildings (for example the Officers' New Barracks at Dover Castle) and the built form

Figure 26 Interior of the Officers' New Barracks, Dover Castle, a substantial and highly visible building, but one which has no current use

of the structures (for example casemated barracks at Western Heights and Fort Burgoyne) bring their own additional and specific challenges. Re-use of any of the District's barrack building will require major investment both in the fabric of the structures and in services to support any re-use. The longer these buildings remain unused the greater the risk of serious deterioration and as such seeking a sustainable solution for these sites should be a priority.

3.414 It is acknowledged that some sites, such as Connaught Barracks are suitable for redevelopment. It is desirable however that any redevelopment at sites such as Connaught Barracks refers to the historic character of the site. Development that does not reflect the historic character of a site is vulnerable to seeming artificial and placed.

3.415 The District's Barrack buildings form part of a wider defensive landscape and they are often associated with or form part of other defensive structures. Defensive sites have their own specific setting issues. Development adjacent to or within such sites has the potential to negatively impact upon the setting and character of these heritage assets. Development that causes harm to the setting or diminishes the ability for visitors to the site to appreciate the significance of a monument or place should be avoided.

Opportunities

3.416 Dover District has an exceptional group of historic fortifications and a rich military history. The District's surviving barrack buildings form an important part of this group of defence related heritage assets. These District's defensive assets as a whole have the potential to substantially contribute to the future well being of the District, and the aim should be sought to maximise the economic and interest value of the District's defensive heritage assets.

3.417 Emphasis should be placed on finding positive and sustainable uses for the District's barrack buildings so that they can substantially contribute to this aim. Some development may be necessary at Barrack sites in order to ensure their long term

Figure 27 *Former barracks buildings in Deal have been sympathetically converted to provide attractive residential properties*

future. Such development should be of a high quality. Development that causes harm to the significance of these sites should be avoided. As such any development should seek to be of an appropriate size and density, should be sited sensitively and should be of a high and distinctive architectural quality. Wherever possible new and sustainable uses should be found for the heritage assets to ensure their long-term viability. This should include the re-use of historic buildings in a sympathetic manner. Mixed tourism and enterprise led re-use of the District's Barracks should help to ensure the long-term viability of these assets.

3.418 Regeneration and enhancement at Western Heights, Fort Burgoyne and Connaught Barracks should seek to open up these sites to visitors and locals alike in order to raise awareness of the District's military heritage. The Barrack buildings at Fort Burgoyne have the potential to support a range of uses, including community led and heritage led functions. The Fort should act as a focus for the local community (including the existing community at Burgoyne Heights and any potential new community at the adjacent Connaught Barracks) as well as provide links to Dover Castle.

3.419 At Dover Castle itself there are a number of historic barrack buildings, only some of which are currently in use and accessible to the public. The Officers' New Barracks, for example, is a major and prominent building within the Castle, but is currently unused and requires a sustainable future. It is highly visible as a landmark building within the site and sits in a spectacular location overlooking the Channel. This building, along with other Barrack buildings at Dover Castle provide the opportunity for the public to connect with the lives of the everyday soldiers who manned the fortification. Consideration should be given to better interpreting the barrack buildings and where possible opening them up to the public so that they can tell the human story of the Castle's garrison to visitors.

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Figure 28 South Barracks, Deal. © Dover District Council

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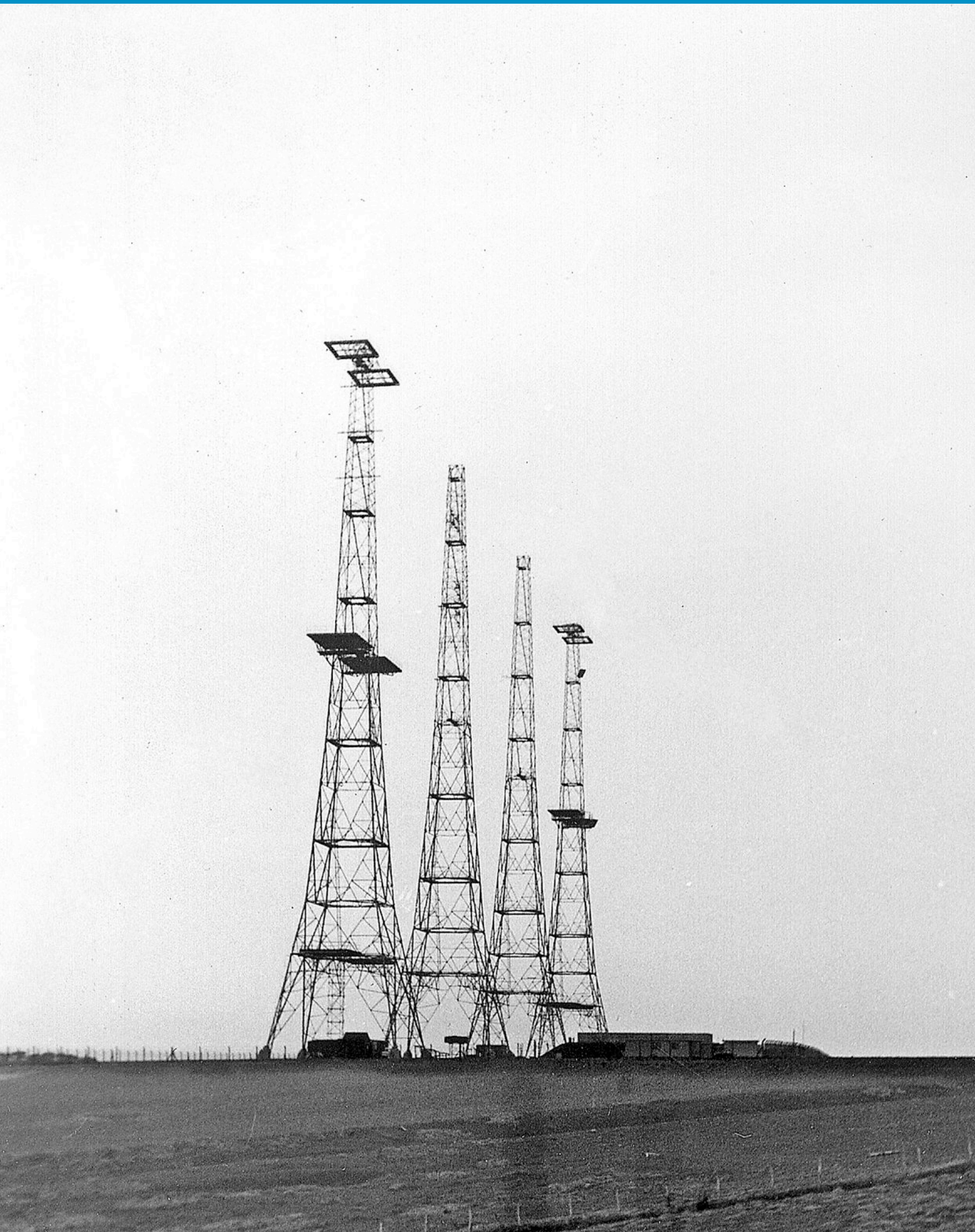
Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
Drop Redoubt Casemate Barracks	Historic Buildings, Structures and Buried Archaeological Remains	Scheduled Monument	Accessible on selected open-days	On selected open-days
Citadel Casemate Barracks, Officer's Quarters and other buildings	Historic Buildings, Structures and Buried Archaeological Remains	Scheduled Monument	No	None
Site of the Grand Shaft Barracks	Historic Structures and Buried Archaeological Remains	Scheduled Monument	Yes	Yes
Site of the South Front Casemate Barracks and ancillary buildings	Historic Structures and Buried Archaeological Remains	Scheduled Monument	No	None
Deal South Barracks (incorporating Cavalry Barracks and Infantry Barracks)	Historic Buildings, Structures and Buried Archaeological Remains	Listed Buildings and Conservation Area	Parts	Information panels
Deal North Barracks	Historic Buildings, Structures and Buried Archaeological Remains	Listed Buildings	Parts	Information panels
Deal East Barracks	Historic Buildings, Structures and Buried Archaeological Remains	Listed Buildings and Conservation Area	Parts	Information panels
Keep Yard Barracks, Dover Castle	Historic Building	Listed Building and Scheduled Monument	English Heritage Visitor Attraction	Yes
Casemate Level Barracks, Dover Castle	Historic Structures	Listed Building and Scheduled Monument	English Heritage Visitor Attraction	Yes
Officers' New Barracks	Historic Building	Listed Building	English Heritage Visitor Attraction (exterior only)	Yes
Regimental Institute	Historic Building	Listed Building	English Heritage Visitor Attraction (exterior only)	Yes
Royal Garrison Artillery Barracks	Historic Building	None	English Heritage Visitor Attraction (exterior only)	Yes

Asset	Form	Designation & Protection	Accessibility	Interpretation
Fort Burgoyne Casemate Barracks	Historic Structures	Listed Building and Scheduled Monument	No	None
Connaught Barracks	Historic Buildings	None	No	None
Old Park Barracks	Historic Buildings	None	No	None

Appendix 1:
Theme 3.9 – Cold War Defences



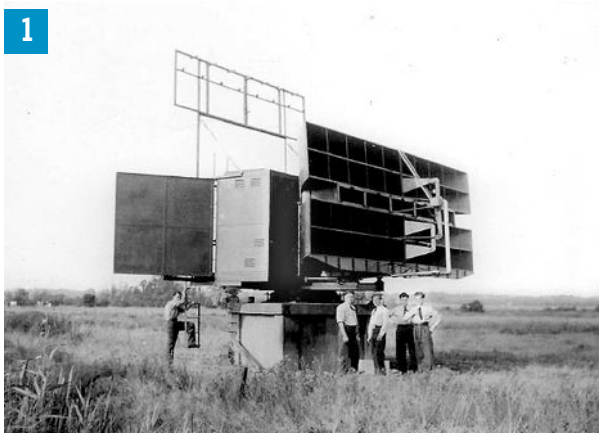
Theme 3.9 – Cold War Defences

Summary

3.420 To many the Cold War was a secret affair that took place behind closed doors. The District's heritage assets reflect this, comprising radar stations with underground bunkers, buried nuclear-fallout monitoring posts and secret underground command centres. The most significant Cold War heritage asset in the District is the Regional Seat of Government for the south-east, which was formed in tunnels deep under Dover Castle.

Introduction

3.421 The military standoff between the opposing capitalist countries of the west and the communist countries of the Soviet bloc is the last major historical conflict to have left a physical trace on the landscape of the District. The Cold War was a conflict that for the majority of the District's population happened behind closed doors, there was no major land or sea battle and as such the Cold War defensive assets in the District are perhaps the least well known. Changes in military capabilities, in particular the development of long range missiles and nuclear weapons meant that, perhaps for the first time, the District's channel coast was no longer a defensible front-line. The Cold War military sites located in the District were instead concerned with long-range detection and intercept control, nuclear fallout monitoring and with civil defence and the maintenance of government.



Cover *Swingate Chain Home masts, the station was re-engineered for a Cold War role. © Dover Museum (d17412)*

Figure 1 *Radar aparatus at RAF Sandwich. © English Heritage*

Description of the Heritage Assets

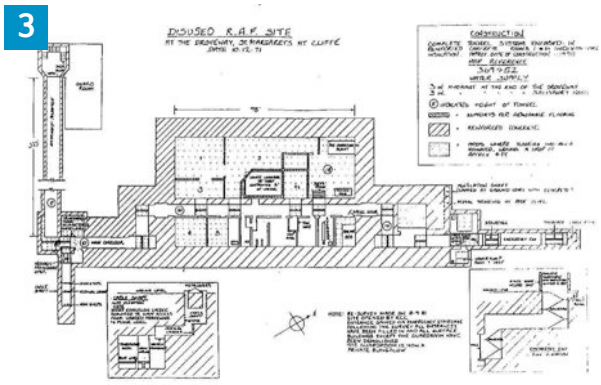
Early Warning and Detection

3.422 The radar early warning systems of the Second World War continued to be maintained in the immediate post-war period and some sites were modified in order to better cope with increasing aircraft speeds. The Second World War GCI radar station at **RAF Sandwich** was extended to provide for additional equipment at the end of the 1940s. The rapid advances made in military technology at the end of the Second World War however meant that in the long term the existing system would no longer be able to provide an effective radar defence against the emerging threat of the Cold War. In response the government launched a new construction programme to modernise the United Kingdom's air defences. Known as 'Operation Rotor' the programme was the most ambitious military engineering programme of the early 1950s. The rotor programme involved refurbishment of existing wartime radar sites, as well as the construction of new radar facilities.

3.423 The existing **Swingate Chain Home station** was one of the stations modified during the Cold War. The re-engineered equipment at Swingate was operational in an early warning role until the mid 1950s when the wooden receiver towers and two of the transmitter towers were demolished. RAF Swingate was subsequently used to provide

Figure 2 *Cold War Sites in Dover District*

3



navigation support for V Force bombers of the late 1950s. The site was also used by the United States Air Force who built a new tower on the base of one of the demolished Chain Home transmitter towers. This new tower was accompanied by a hardened equipment building and was used by the USAF for communications for their UK and European bases. In the 1960s the site was incorporated into NATO's Ace-High communication system until the late 1980s.

3.424 Although the Swingate station was upgraded as part of the wider Rotor programme, a new Rotor period radar facility was built to the northwest at St Margaret's. The new **RAF St Margaret's Bay Rotor Station** was used as a centimetric early warning station and provided both surface and medium to high altitude radar coverage. The site was equipped with surface mounted positioning radar and height finding equipment, all controlled from an R1 type underground operations bunker. The R1 was a single storey bunker with massive 3m thick reinforced concrete walls floors and roof.

3425 The St Margaret's station has now been abandoned and none of the surface radar equipment survives. The underground R1 operations bunker is intact, but its entrances have been sealed and it is currently inaccessible. The bunker would have been accessed via a surface guardhouse which survives (now converted into a domestic property) on the Droveway. In contrast with many other military bunkers the architectural treatment of surface buildings provided at radar sites was designed with some care. The guardroom takes the form of a bungalow type building and was designed to resemble a domestic dwelling. Whilst the guardhouse has undergone some alteration when it was converted to a true domestic structure in the 1970s it retains much of its original and distinctive character. Features such as the pitched and tiled secondary roof, circular fanlights, and flat-roofed veranda all survive.

3.426 The GCI station at RAF Sandwich was also chosen for development as part of the Operation Rotor programme. The low-lying marshland on which the original GCI station was built however meant that the site was unsuited to the construction of a new underground control bunker. It was therefore decided to construct the new Rotor station about 1.5 miles to the west, just outside the village of Ash. The new Rotor station at Ash was, somewhat confusingly, still known as **RAF Sandwich** and continued to operate in a Ground Controlled Interception role. As with the St Margaret's Rotor station the new facility at Ash was provided with an underground operations room, this time of the two storey R3 type – one of 10 such bunkers built in Britain. As at St Margaret's the Ash bunker was approached from a cottage-like guardhouse. The new radar station was equipped with a range of search and height finding radar arrays, some of which were housed at the original site at Sandwich.

4

Figure 3 *Plan of the R1 operations bunker at RAF St Margaret's Bay.*

Figure 4 *Domestic accommodation for RAF Sandwich was provided in a hutted camp at Stonar. A number of the buildings, such as the inflamable store seen here, survive within the present industrial estate*

The underground operations R3 bunker and guardhouse both survive as does a 1950s period sewage treatment works and at least one of the Rotor period radar plinths.

3.427 Despite the massive amounts of money spent on the programme, the arrival of faster jet-aircraft meant that the Rotor programme sites were quickly superseded. The existing reporting systems were too slow and almost overnight the arrival of the new Type 80 radar made part of the Rotor system redundant. The programme to install the new Type 80 radar was known as Rotor 2 and as part of this programme Ash was equipped with new Type 80 radar equipment and a new surface Type 80 modulator building. The Type 80 modulator building survives. A further new scheme emerged in the early 1960s, known as the Linesman/ Mediator programme; the scheme was designed to integrate air traffic control and air defence. Under this plan the Ash site became a satellite radar station. Ash was originally to be part of the air defence Linesman station, but changes to the plan meant that by the early 1960s Ash was converted to a civil air traffic control station. At this time it was fitted with two new Marconi A264 Radar arrays, the circular plinths for which still survive. A 1960s operation block adjacent to the Rotor period guardhouse also remains

3.428 In the 1980s the RAF re-acquired the site from the Civil Aviation Authority (CAA) as part of the new Improved United Kingdom Air Defence Ground Environment (I-UKADGE) scheme. As part of this scheme the Rotor period R3 bunker (which had been abandoned by the CAA) was stripped out and extended. The bunker at Ash was the first

Figure 5 *Type 80 modulator building, RAF Sandwich (Ash)*
Figure 6 *Early 1960s Marconi T264A CAA radar plinth, RAF Sandwich (Ash)*

Rotor period bunker to be refurbished under the I-UKADGE programme. It was initially used as training centre for the new equipment and later played an important role in testing new air defence software. Operations ended at Ash in 1997 and the bunker and site is now used as a secure data centre.

3.429 As well as the detection of enemy aircraft and missiles the government was also concerned with the early detection of nuclear fallout. In 1957 the United Kingdom Early Warning and Monitoring Organisation was set up and the existing Royal Observer Core (ROC) was tasked with providing primary data on any atomic attack. To do this a number of posts were set up from which the ROC could safely monitor nuclear fallout as and when it occurred. These **ROC Posts** are the most common type of Cold War monument. They consisted of a buried monolithic reinforced concrete structure designed to protect their occupiers from radiation. Built to a standard design each ROC Post consisted of an entrance shaft from which the post could be accessed. A single room provided working and sleeping accommodation, with an Elsan chemical toilet in a separate compartment. Four ROC Posts are recorded in the County Historic Environment Record within the District, at Ash, Eythorne, Kingsdown and Swingate. All of the District's ROC Posts would have sent their data to a group headquarters located elsewhere in the county.

The Maintenance of Government

3.430 In the event of nuclear attack provision needed to be made for emergency regional government to coordinate civil administration. The Soviet H bomb of the 1950s could destroy not only whole cities, but also their surrounding infrastructure and in the event of nuclear attack local regions would need to be able to operate autonomously. Regional Seats of Government

(RSG) were established from where functions such as public information, police, fire services and communications could be controlled. The RSG for the southeast was located in tunnels under Dover Castle. The **Dover Regional Seat of Government** (RSG 12) was installed in the lowest floor of the tunnels under Dover Castle. Known as Dumpy Level these tunnels were excavated during the Second World War and were refitted to withstand nuclear attack (although given the porous nature of chalk it is uncertain how safe they would have been from nuclear contamination). The higher levels, including parts dating back to the Napoleonic period, were used for accommodation dormitories and canteens. The Dover Castle RSG was abandoned in the 1980s and is now under the care and maintenance of English Heritage.

3.431 The Civil Defence (General Local Authority) Regulations of 1983 put an onus on every local authority to have in place an **Emergency Centre** from which to control and co-ordinate their activities in the event of hostile attack (nuclear or otherwise). This Act coincided with the building of the new Council Offices at Whitfield and a new Emergency Control centre was incorporated into the new offices. The facility was designed to be operational independently from mains services and provide radioactive protection for essential staff. The facility is now used for storage.

Figure 7 *Tunnels, known as Dumpy Level, under Dover Castle housed a Regional Seat of Government (RSG 12). © English Heritage*

Statement of Significance

3.432 The Cold War defensive remains in Dover District are less visible than those of earlier periods. For much of the population the Cold War was a conflict that occurred in secret behind closed doors. The nature of the surviving heritage assets, which comprise in the main bunkers and other underground features mean that much of Dover's Cold War heritage remains a secret. The underground Regional Seat of Government at Dover Castle is of considerable significance in its own right and is included within the Scheduling of Dover Castle. Some buildings, such as the bungalow-like guardhouse at St Margaret's or the Type 80 modulator building and Marconi radar plinths at Ash, are well-preserved examples of buildings that are relatively rare at a national level. Overall however it is suggested that as a group the Cold War heritage assets in Dover District are of **moderate significance**.

Evidential Value

3.433 Buried archaeological remains associated with the Cold War sites in Dover District may be able to provide some additional evidence for the construction, design and everyday running of these places, however in general the evidential value is probably limited

Historical Value

3.434 The surviving Cold War remains are illustrative of a period of international fear arising from the development of powerful nuclear weaponry combined with ideological antagonism. The network of ROC Posts and Regional Seat of Government under Dover Castle are illustrative of the genuine threat of nuclear attack that dominated the Cold War period.

3.435 The Rotor Programme was one of the most ambitious military construction

Figure 8 The BBC Studio within the Dover Regional Seat of Government. © English Heritage

schemes of the 1950s and the massive underground bunkers provided at sites such as St Margaret's and Ash illustrate the scale of construction and expenditure levied at these sites.

Aesthetic Value

3.436 The surviving Cold War sites within Dover District are of limited aesthetic value.

Communal Value

3.437 The secretive nature of Cold War sites such as those within the District mean that they are currently of limited communal value. The underground Regional Seat of Government at Dover Castle is under English Heritage guardianship, but is not currently open to the public. The opening up of the tunnels of the RSG to the public would help to raise the perception of Cold War remains.

Vulnerabilities

3.438 The secretive nature of the Cold War means that the heritage assets of this period are the least visible, both in the landscape and in the public's mind. As such the role that the District's Cold War sites played in the conflict are vulnerable from to being overlooked and forgotten about.

3.439 The majority of the assets themselves take the form of solid, hardened structures and as such are perhaps less vulnerable to deterioration and decay than some of the District's other defensive heritage assets. A number of the Cold War assets take the form of buried structures and bunkers. Some, such as the Ash Radar Station, have found an alternative use with the Ash site being used for secure data storage. It is understood that a former ROC monitoring post at Ash is also used for small-scale document storage. As undesignated sites these new use brings about their own issues and vulnerabilities arising from potential future development and change. The use of these sites for secure data storage site also means that they are publicly inaccessible. In general however these negatives are probably on balance outweighed by the positive benefits that come from the sites being in use.

3.440 Other structures such as the Radar Station at St Margaret's, the Regional Seat of Government at Dover Castle and the District's other ROC Posts do not currently have a use and are not open to the public. The tunnels for Dover's Regional Seat of Government are probably the least vulnerable, being under the management of English Heritage. It is doubtful that a future use will be found for the bunker at the St Margaret's Radar Station site and it is unlikely to be capable of being safely opened to the public. It is therefore probably best left sealed. The ROC posts are likely to be structurally sound and solid, although where accessible (or access is forced) they will be vulnerable to vandalism and loss of any fixtures and fittings. The surface features of the ROC posts are more susceptible to damage and as undesignated heritage assets they are also vulnerable to demolitions and backfilling/ partial infilling.

Opportunities

3.441 The physical nature and/or current usage of a number of the District's heritage assets meansmean that opportunities for public access and/or interpretation is limited. The site that presents the greatest opportunity for public engagement and enjoyment is the Regional Seat of Government located in tunnels beneath Dover Castle. The site is currently run on a care and maintenance basis by English Heritage, but is not open as part of the Dover Castle visitor experience. Opening up the tunnels to the public is a long-term goal for the site and this would present the opportunity to inform locals and visitors alike of the role of Dover in the Cold War period.

3.442 The bunker at the St Margaret's Radar Station site is sealed (and is likely to remain so) and the access guardhouse is now a private residence. A substantial portion of the above ground area of the former radar station however is now open and accessible. Although there is little to see at the site there may be an opportunity for some limited interpretation in order to inform visitors of the site's previous role.

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Key Heritage Assets

Asset	Form	Designation & Protection	Accessibility	Interpretation
RAF Sandwich (WWII GCI station)	Historic Buildings, Structures and Buried archaeological remains	No	Private Land (commercial and agricultural land)	No
RAF Sandwich (Ash Rotor station)	Historic Buildings, Structures and Buried archaeological remains	No	Private Land (secure data centre)	No
Swingate Radar Station	Historic Buildings, Structures and Buried archaeological remains	No	None	No
St Margaret's Rotor Station	Historic Buildings, Structures and Buried archaeological remains	No	Part open access land	No
Ash ROC Post	Historic Structure	No	None	No
Elvington ROC Post	Historic Structure	No	None	No
Kingsdown ROC Post	Historic Structure	No	None	No
Swingate ROC Post	Historic Structure	No	None	No
Dover Regional Seat of Government	Historic Structure	Scheduled Monument	English Heritage guardianship, but not currently open to the public	Yes
Dover District Emergency Control Centre	Historic Structure	No	None	No