An Archaeological Characterisation for Dover

January 2021

Kent County Council kent.gov.uk

Historic England

CANTERBURY ARCHAEOLOGICAL TRUST LTD

DOVER DISTRICT COUNCIL

CONTENTS

Historic England
Kent County Council kent.gov.uk
CANTERBURY ARCHAEOLOGICAL TRUST LTD
DOVER DISTRICT COUNCIL

List of figures

ACKNOWLEDGEMENTS

This document is a product of the 'Dover Urban Archaeological Database' project that has been funded and supported by Historic England. The authors would particularly like to thank Jane Corcoran and Peter Kendall for their support and encouragement during the project. We would also like to thank Martin Bates, David Wilkinson and the Dover Harbour Board for helping with advice and information. The text was written by Victoria Hosegood, Paul Cuming, Keith Parfitt, Jon Iveson, Ben Found, Lis Dyson and Alison Cummings.

1 - INTRODUCTION

Figure 1.1 - Chalk Cliffs at St Margarets Bay. © Explore Kent

1.1 - The Dover Archaeological Characterisation is the culmination of a four year project to identify, map and understand the archaeological resource of a town that has played a critical role in the history of England and, at times, north-west Europe. As the closest point to the continent, Dover has been central to the transmission of ideas, goods and people between continental Europe and England since at least the bronze age. From bronze age Dover comes the world's oldest surviving sea-going boat and evidence of maritime bronze trading. Many of the extensive contacts between England and the continent in the iron age and at the beginning of the Roman period must have passed through the sheltered harbour in the town and following the Roman invasion Dover's importance increased further, eventually becoming a base for the defence of the Channel, which ultimately required the construction of three successive forts. In the medieval period, Dover was the port through which passed much trade and communication with England's extensive territories in France. It was also always a potential weak point though. The massive defences of Dover Castle also defended the town but in time the town itself was also walled. Defence remained the watchword at Dover and the intense rivalry, and often war, with France saw ever more impressive defences constructed, most notably in the later post medieval period at the Western Heights, one of the largest artillery fortresses in the country. Today, in more peaceful times, the military role of Dover has ceased but it remains Europe's busiest passenger port, a function the town has had since the first boats crossed the Channel.

1.2 - This extensive history has left a wealth of archaeological remains, much of which has been preserved, with numerous sites given statutory protection as Scheduled Monuments or Listed Buildings. The bronze age boat and the evidence of bronze age maritime trading can be seen in Dover Museum. Parts of Dover's Roman heritage can be seen at the extraordinary Painted House, the surviving fort wall bastion behind Dover Library and in the form of the lighthouse in Dover Castle, the tallest surviving Roman building in Britain. The medieval Castle still dominates the town and it attracts almost 400,000 people each year. There are also numerous medieval buildings and remains within the town such as parts of the Maison Dieu which is now used as Dover's town hall, much of a medieval priory and several

churches with medieval elements including the exposed ruins of part of the church of St Martin-le-Grand. The post-medieval remains are similarly highly visible and have given the town much of its existing character. Many can be seen in the streets of the town and for many visitors to the UK arriving by sea, the late 19th and early 20th century harbour arms are the first structures they pass. Though designed to be less visible, the Western Heights fortifications on the hill to the west of the town can also be partially visited and are evocative reminders of the town's essential military role for much of the last 2,000 years.

1.3 - Much of Dover's archaeological resource cannot, however, be seen, being buried beneath the ground or sometimes hidden within the structures of buildings. It is only encountered when the ground is disturbed or buildings modified, usually by new development or during utilities works. At such times it is essential that developers, planners and archaeological curators have access to high quality data about the location of known archaeological deposits so that an assessment can be made of the likelihood of encountering further remains and the best strategy adopted to avoid doing so, or if unavoidable, to minimize the impact of the development.

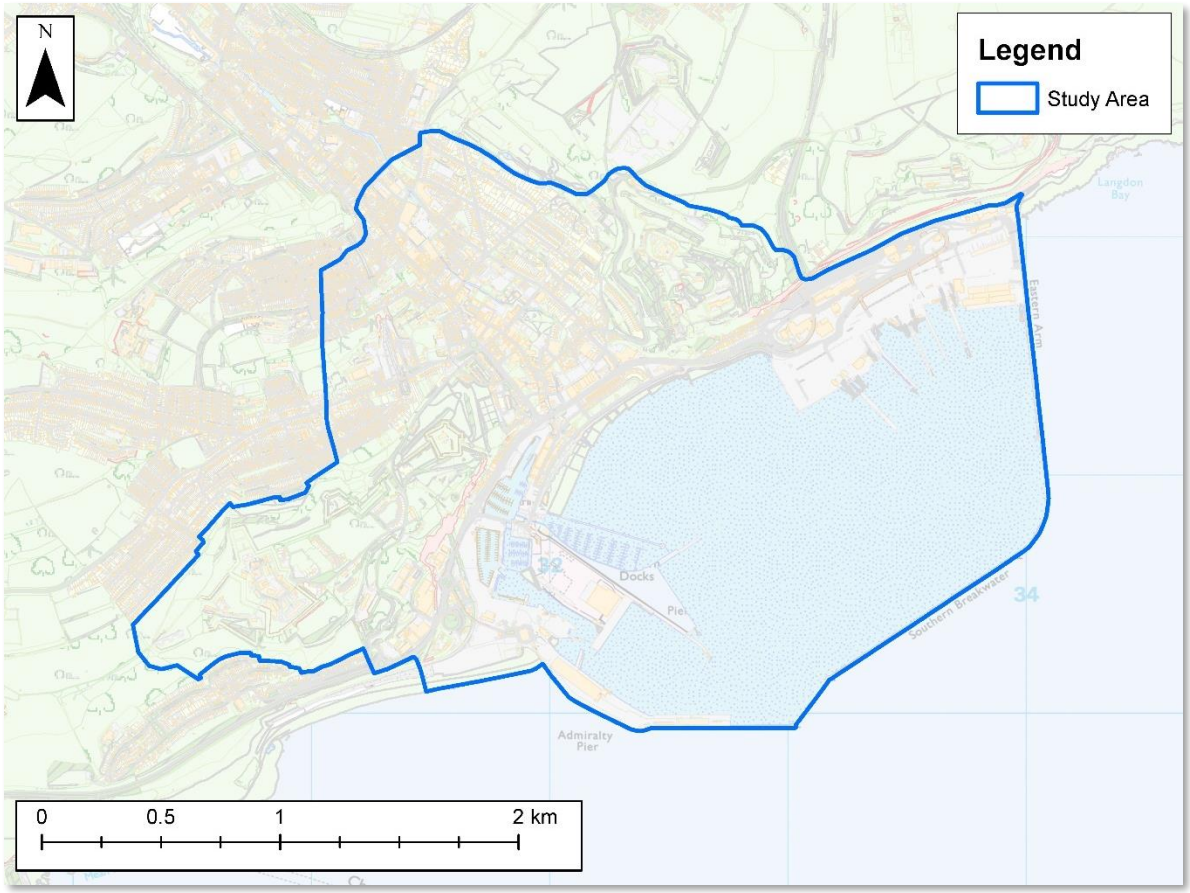

Figure 1.2 – Map of Project Area

1.4 – It is not enough, however, to only have access to raw data. Archaeological data needs synthesis if it is to inform our understanding of the past. The relationships

between data elements, and between those elements and their environment, need to be understood if a coherent picture of Dover's past is to be achieved.

1.5 – It was with these concepts in mind that the Royal Commission on the Historical Monuments of England (now Historic England) developed its 'Urban Archaeological Database' programme in 1992. 35 of England's historic towns were identified as needing enhanced baseline datasets of archaeological information, of a comprehensiveness and detail that was beyond that which Historic Environment Records (HERs) can usually provide. These enhanced datasets are termed 'Urban Archaeological Databases' (UADs). Typically, a UAD consists of an underpinning database (in Kent being the HBSMR database developed by ESDM Ltd) linked to a Geographical Information System, or GIS (in Kent being the ESRI suite of GIS modules). The difference between how archaeological information is represented in a HER and a UAD is essentially one of detail. For example, prior to this project the *Classis Britannica* fort in Dover was represented by a single HER record, linked to a single HER GIS point. The work of transforming this into UAD format involved breaking the fort record into multiple new records each of which depicts a feature within the fort such as the walls, a gate, a barrack, a granary etc. Each component has its own record and its own GIS depiction. Similarly, the Event records (an Event is an archaeological activity such as an excavation or watching brief) in a HER are usually represented by a single record per Event linked to a single GIS entity. Under the UAD standard each intervention unit within an Event e.g. each individual trench, test-pit or borehole, is represented by a separate HER Event record. These can be grouped to indicate the relationship between them, but they are recorded separately, thus allowing additional information to be recorded such as the deposit sequences and depths of layers.

1.6 – To enhance the comprehensiveness of the records a detailed literature search was carried out involving all available online materials and those in libraries and archives. Researchers and archaeological contractors were also asked to supply additional data where their work had not yet reached publication stage or to clarify aspects of the archaeological discoveries.

1.7 – Following the completion of the data work, the process of characterisation could begin. More will be said about characterisation in chapter 3 but it can be briefly explained as the process of generalising and synthesising the raw data in the UAD to improve understanding. Within urban archaeological contexts it identifies the main activities that the data represents, where these activities are taking place and how they inter-relate. Thus, within one archaeological period it may help us identify areas of settlement, trade, industry, commerce, religion etc and suggest how these areas may have related to one another and to the wider landscape. It should be noted, however, that as a summarising activity, characterisation always risks over-simplification, resolving complex data into too tidy a pattern. Characterisation is therefore best understood as a model, not a map, of past activity.

1.8 – Nevertheless, characterisation is a powerful research tool for visualising complex data in a comprehensible way. It allows the 'story' of the past to emerge whilst also identifying questions to which we still lack answers. This characterisation is therefore intended for anyone with an interest in Dover's heritage, including those who may wish to understand how historic Dover worked more generally as a place, or who may want to know what role a particular part of the town may have played in particular periods. It is not intended to serve as a comprehensive map of the archaeological heritage of Dover, nor as a statement of where development may or may not impact on archaeological remains. Such questions will need access to full UAD data and consideration by qualified specialists. Finally, as this characterisation is an archaeological characterisation and not a built environment characterisation, it only covers Dover's heritage up to the year 1900. This is certainly not to suggest that 20th century heritage is any less important than that of earlier centuries. Indeed, the heritage of the two World Wars and of Dover's industrial, commercial and residential development in that century are as important to the people of Dover as the heritage of earlier periods. It is simply the case that the 20th century is represented primarily by standing buildings and other extant structures rather than by its archaeological remains. Therefore, to summarise and generalise the detail in the 20th century record, a built environment characterisation would also be required.

1.9 - The Project Area (Fig. 1.2) was selected to include the core urban area which includes the area believed to contain the Roman, Anglo-Saxon and medieval town, from the waterfront to slightly north of Bridge Street. Unusually for a UAD project, however, the study area was expanded to include three areas known to be critical to Dover's development and which contain archaeological monuments of prime importance. These were the port, Castle Hill and the Western Heights. Each of these three areas was in a historic relationship with the town centre, both shaping and responding to developments in the town. For example, the development of the port stimulated settlement and industry in the port area and along Snargate Street, as well as an extension of Dover's communications network and defence system. Dover Castle was at least in part a response to the importance of the medieval and post-medieval town and harbour and its vulnerability to attack (though Castle Hill had a defensive function before this time and the Castle was also intended as a visible symbol of royal power). The influx of workers brought to the town to construct the castle may in turn have provoked a new market at Upmarket. Many of the town's institutions and commercial enterprises e.g. pubs, churches etc were driven by the needs of the large military garrison, latterly on the Western Heights, and developed along routeways and streets that evolved to provide connectivity across Dover town. When considering the development of the town, port and defences of Dover it is essential to think about the relationship between these additional areas and the town and so they have also been included in the study.

2 - THE LOCK AND KEY OF THE KINGDOM

Figure 2.1 - View of the Waterloo Crescent, Dover Harbour and Dover Castle from the Western Heights. © Explore Kent

2.1 - In 2013 the Dover Heritage Strategy reviewed the archaeological potential of the town of Dover:

"Archaeological excavation in Dover has proved that deep stratified deposits are present over much of the historic core of the town, with archaeological remains in the former estuary area being up to eight metres in depth. On the settled land either side of the former ancient harbour up to three metres of stratified archaeology is known. Dover's urban archaeology is as complex and substantial as any other historic town or city in the country including London".

2.2 - It was this rich and complex archaeological resource in Dover town centre that led to the town being placed on the list of 35 towns in England that were believed to be appropriate for an Urban Archaeological Database. Traditionally, the UAD work would have been limited to the core archaeological area, which in Dover's case would have only covered the Roman and medieval heart of the town. It quickly became apparent, however, that this approach would be insufficient for Dover where the heritage is of a scale, extent and diversity that a wider picture was needed. Dover's heritage is, quite simply, different to other towns.

2.3 - Dover is unusual, even among other towns for which UADs have been developed, in the longevity of its significance. Aside from a few examples such as Chester and York which are also multi phased, most UAD towns are significant for a limited chronological span, usually from the Roman to medieval periods. All are nationally important sites, but only some have a wider international importance and if they do then this is often limited to a single period. Dover, however, has internationally important remains dating to the bronze age, Roman, medieval, post-medieval and modern periods. This great time depth gives Dover additional significance. It allows major historical themes to be examined through the lens of the development of a single town, over a longer timeframe than is possible in many other places. Themes such as settlement, trade and industry, communications, religion and defence have all influenced the development of the town and have combined with natural process and landforms to shape Dover leaving it with its exceptional legacy of diverse heritage assets.

2.4 - Dover's historical significance derives primarily from its relationship with the sea and continental Europe beyond. Located at a gap in the cliffs where a natural harbour offered both a safe anchorage and access to the Kent hinterland, from late prehistory onwards Dover provided the best place from which to cross the channel safely. More than any other process, the need to move people and goods across the Channel has shaped Dover and even today the port is its dominant feature.

2.5 - The bronze age boat, discovered in 1992 and dating to c. 1,550 BC, was designed to be capable of sea travel. It is considered to be the oldest surviving sea-going boat in the world and is now on display in Dover Museum. A further part of the boat is thought to still remain buried close to the A20 underpass and awaiting potential future excavation. What the boat may have carried could perhaps be indicated by another discovery from Dover. In 1974 a probable wreck site was found on the eastern side of Langdon Bay. More than 350 bronze objects have now been recovered from the wreck (which is now designated as a Protected Wreck Site) including winged axes, palstaves, spatulate axes, spearheads and daggers. Although the hoard dates to c. 1,100 BC it shows the scale and quality of the goods being transferred across the Channel in the bronze age. Again, the hoard is now on display in Dover Museum.

2.6 - Traded goods and the boats that carried them became an ever more important theme in the life of the town. The Roman forts of the early 2nd and 3rd centuries may not have been established with trade in mind, but rather for defence, but it is likely that Roman trade also moved through the harbour at Dover and the possible harbour features discovered in the town may well have served both defence and trade purposes. An altar discovered near the Painted House in 1976 indicates that a *strator consularis* (senior imperial transport officer) probably named Olus Cornelius Candidus had been stationed at Dover during the 2nd century. The movement of ships would have been eased by the two lighthouses, one located on Castle Hill (which survives as a Scheduled Monument) and another now lost example at the Western Heights (where the lighthouse has been demolished) although the exact role that these lighthouses played is unclear.

2.7 - Although it is known that Dover was an important trading port in the later Anglo-Saxon period, no evidence of this has so far been seen archaeologically. The first evidence of physical changes being made to Dover deriving from its trading concerns date to the late medieval period when, in the late 15th/early 16th century a new port was constructed almost 1km south of the town. Its construction was necessary because the tidal estuary of the Dour that had been used since prehistory had silted up. This late medieval harbour also faced the problem of the build-up of shingle and a major new scheme, requiring very significant resources, was implemented in the 1580s/90s. From that time, the harbour was continually expanded and extended until by 1909 it had more or less assumed its modern shape when the modern outer harbour was completed.

2.8 - The importance of Dover's harbour developments in shaping the modern town should not be under-estimated. The port's needs have shaped the settlement pattern, which subsequently extended down the coast from the town to the port area. It required new communications routes, both road and rail and, as we shall see, it had to be defended from attack. It is indicative of the importance of Dover's harbour installations that it has several structures awarded statutory designation. The Fairbairn jib crane at Wellington Dock is a Scheduled Monument. It is a significant example of the Fairbairn principles of box girder design and provides a testament to Dover's history as an important cross-channel trading port. Admiralty Pier, Wellington Dock, the Prince of Wales Pier, the clock tower and lifeboat house, the former Lord Warden Hotel and the former Dover harbour station are all designated as Listed Buildings.

2.9 - The advantages for trade that geography had given to Dover, however, were double-edged. Just as Dover was the ideal place from which to leave for the continent, so it was also England's most vulnerable town to attack and invasion. The town, or in earlier periods the sea close to it, had to be defended and from the Roman period onwards ever greater resources were dedicated to achieving this. These resources were invested partly in military units and personnel, but even more in fortifications and fixed defences, an investment that ultimately led to Dover being possessed of some of the most extraordinary and dramatic military defences in England. It was the recognition of this importance that led the 13th century chronicler Matthew Paris to describe Dover Castle as the 'lock and key to the kingdom'.

2.10 - The Roman forts at Dover were originally constructed as part of a military base for the *Classis Britannica* fleet that protected the seas between Britannia and Gaul. Extensively excavated in the 1970s and 1980s by the Kent Archaeological Rescue Unit, the forts produced remarkable archaeological evidence. This includes the forts themselves with walls, bastions, barracks and granaries, but also ancillary buildings such as a bath house and the 'Painted House' whose painted wall plaster has been described as among the finest north of the Alps. Some of these features (although only a relatively small proportion of the known area of Roman activity within the town), are protected as Scheduled Monuments and the Painted House, a gatehouse and one of the bastions of the forts are available to public view.

2.11 - It seems that the town was not defended with a town wall until the 14th century as the first records of repairs are only found in 15th century documents. Nevertheless, the wall was extensive and substantial with at least five known gates (two of which have been found archaeologically) and probably more. The full and exact route of the town wall is uncertain, particularly to the north and north-east of the town, and identifying the route remains one of the key outstanding research questions to be addressed for medieval Dover.

2.12 - The town's most recognisable feature, both domestically and internationally, is of course Dover Castle. Arguably the largest castle in England, and one of the most dramatically sited in the world on the great spur of Castle Hill overlooking the sea, Dover Castle is even today an iconic symbol of English independence and durability. The extensive medieval and later remains overlooking Dover are of international significance. They demonstrate an unusually high degree of technical innovation and engineering skill and Dover Castle is unusual in surviving in such a complete state. They also represent the first concentric castle in western Europe with the first known residential gatehouse – a precursor to those that we see in Edward I's Welsh castles. Its importance is further enhanced by its royal connections, the survival of detailed documentary sources relating to its construction and the longevity of its use. It is a Scheduled Monument and a Conservation Area and contains numerous Listed Buildings.

2.13 - From the 16th century the defences of Dover became more widely distributed across the waterfront. Archcliffe Fort, a Scheduled Monument, was first built from 1539 and subsequently, between the 16th and 19th centuries, several gun batteries and redoubts were constructed along the waterfront and in the port. Of these the unique iron gun turret on Admiralty Pier built in 1873 is a Scheduled Monument. The most extensive defensive construction in this period, however, was on the Western Heights where in the 18th and 19th centuries a huge fortress was constructed to protect the port and defend Dover against land attack. North of the Castle (and outside the study area), Fort Burgoyne was built between 1861 and 1873, one of the ''Royal Commission' forts. It was placed to defend the Castle on its landward side and has some unique features such as the wing batteries connected by earthwork lines to the main fort. Its layout remains largely unaltered and inside are many original fixtures and fittings. The fort remained in military use until as recently as 2006. It is now owned by the Land Trust and is a Scheduled Monument. The Western Heights fortifications constitute one of the largest fortresses in the UK. Almost all the complex is a Scheduled Monument and Conservation Area. Today, though some parts of the fortress have not survived, many features remain intact. Some parts are open to the public and can be easily visited. Other areas are opened regularly by the volunteers of the Western Heights Preservation Society. A masterplan for the future of the fortress was developed in 2015 to give direction to conservation efforts and to help manage change for what is an at-risk site.

2.14 - Dover's military past is crucial to its modern character. Located as it is, mostly around the periphery of the town at Archcliffe, the Western Heights, Fort Burgoyne, Dover Castle and along the defended harbour arms, Dover's military heritage provides the 'frame' within which the town sits. The 'picture' in the frame – the town itself – has changed considerably over the centuries but the need to protect Dover from both land and sea attack has remained constant. Defence heritage, far from being a specialist interest, relates to those themes that have been central to English life over the last 2,000 years. The growth of national identity, with the consequent

flexing of one state (England and then Great Britain) against another (usually France), changes wrought by new technology both military and non-military in nature, and the increased importance of industry and trade, all had the potential to spark conflict. From the first Roman fort to the Cold War use of the Castle, protecting the realm from invasion has always been the first responsibility of the state. For much of its history Dover was one of the truly strategic places that the state needed to protect, as witnessed by the massive resources that had to be committed, over so many centuries, to achieve this. The fact that in Dover today, so many of the military heritage sites can be seen and visited, whilst others await further research, discovery and public access, gives Dover's military past a unique resonance and visibility with which few other small towns in England bear comparison.

2.15 - As well as international factors, Dover was of course shaped by the same domestic processes as many other towns and these have left their own traces in Dover's heritage. Although only a small town, Dover contains a wide variety of evidence for religion and ritual. From prehistory this includes evidence for the use of the Dour valley in burial rituals and traditions, such as a neolithic or bronze age ring-ditch (presumably from around a barrow) discovered beneath Market Street in 1972. In the Roman period a cemetery was established in the vicinity of Adrian Street/Snargate Street and there were also early-mid Anglo-Saxon cemeteries at Priory Hill and Albany Place/Durham Hill. Most of the evidence relates to Christian practices, however, which may have begun in Dover with the possible construction of a small 7th century monastery within the Saxon Short fort (though alternative interpretations have been given for the Anglo-Saxon buildings within the walls of the fort). In the late 10th century the church of St Mary in Castro was built on Castle Hill and excavations have revealed an Anglo-Saxon building beneath the footprint of the church of St Martin-le-Grand. Much of the evidence for religion and belief in Dover dates to the medieval period when a combination of factors, including the growth of the population, as well as its position on the pilgrimage route between Canterbury and Rome, led to the construction of several churches. These include the church of St Mary and the 13th century chapel of St Edmund, both of which are still upstanding and have surviving medieval elements. The churches of St James and St Martin-le-Grand were also constructed in the medieval period and exist as ruins in the town today. St. Peter's Church, which stood facing the Market Square and was the church of the Corporation, has been demolished and all trace above ground has gone. Dover Priory, the Priory of St. Mary the Virgin and St. Martin of the New Work was founded in 1131, originally for Augustinian Canons although these were replaced by Benedictines in 1136. It was dissolved in 1535 and used as farm buildings until the 19th century when it was converted into a school. In the early decades of the 13th century, the Maison Dieu, Dover's medieval hospital, was founded. Though much restored and extended, much of the medieval fabric remains intact and the building is both a Listed Building and a Scheduled Monument. Indeed, all the remaining medieval religious buildings, and the demolished churches of St Martin-le-Grand and

St James, are either Scheduled Monuments or Listed Buildings and Dover Priory contains four Listed Buildings and is also a Scheduled Monument.

2.16 - During the medieval period, Dover would have been host to many industrial processes. Tanning, metal- and wood-working, brewing, milling etc would all have been carried out in the town. Aside from the discovery of artefacts that may have been manufactured in Dover and fairly certain knowledge that there was a medieval mill on the Dour (probably in Mill Lane), little is known of these industries. So far archaeological excavation has not produced any solid evidence for medieval industry in Dover and there are few references available in the documentary sources. It is not until the post-medieval period that detailed evidence of Dover's industries is available. The main industrial corridor was along the banks of the river Dour and included timber yards, tanneries, corn mills, paper mills and foundries. A second focal point for industrial activity within Dover appears to be the area at the base of the cliffs beneath the Western Heights, along the lines of Snargate and Limekiln Street. Historic maps show limekilns along Snargate Street from the 16th to 18th centuries and by the 19th century further industries, such as brewing, and milling are also apparent in this area. Of the many industrial buildings that still survive from this period, however, only one has statutory protection in Dover, being the Connaught Pumping Station which is a Listed Building.

2.17 - Like any medieval town, Dover depended on its hinterland for its foodstuffs. Although its sea side location and port facilities would have provided ample opportunity for fishing and enabled produce to be brought into the town, as well as some which was no doubt produced by householders, it is likely that most had to be brought into the town to be sold at market. Dover's fair, St Martin's Fair, had long been held in front of the church of St Martin-le-Grand with a charter since 1160. If this part of the town had the same funtion in the preceding Anglo-Saxon period, it seems likley that it would have been connected to the wider landscape via a network of roads before the documented (and archaeologically visible) medieval expansion of the town. Many of the roads and lanes that today connect with the Market Square have early origins confirming its status from an early period. North-east of the town, outside the probable line of the walls, a second market may have been established on the hillside between Laureston Place and Ashen Tree Lane. This area was once known as 'Upmarket' area and a 14th century document (c.1304) lists it as one of the 20 wards of Dover. There was certainly medieval occupation in the area and it has been suggested that a market may have existed here, perhaps serving people working on the construction of the Castle.

2.18 - Settlement in Dover has been shaped by natural factors alongside these historic processes. The factors that have most shaped settlement in Dover are the river Dour itself (including its floodplain which was marshy in early periods); the tidal estuary that formed the early harbour; the sea, and particularly the longshore drift that created the spit of land behind which the late medieval port was created; and the fortified headlands of Castle Hill and the Western Heights. In different ways these

served both to constrain settlement in some directions and promote its spread in others. Attention was initially focused on the tidal basin that then formed the harbour and it was not until the end of the Anglo-Saxon period that settlement began to spread across the eastern side of the Dour. The town was laterally constrained by the heights, and by the harbour and sea-front, and so subsequent growth had to be primarily away from the sea along the Dour and to an extent up the lower slopes of the valley.

2.19 – The settlement in Dover as we see it today has developed from the end of the Anglo-Saxon period onwards. If the town suffered a setback during the Norman Conquest, it seems to have quickly recovered and by the late 11th century was expanding on an entirely new street layout. Archaeological evidence and historic mapping suggest that many of the town's modern streets have their origins in this new medieval layout, probably including Bench Street, King Street, the Market Square, Fishmongers Lane, Flying Horse Lane, Cannon Street and Biggin Street. East of the Dour, less of the medieval street pattern survives having been swept away by post-war development. Several routes have been identified archaeologically alongside evidence of occupation from the mid-12th century onwards. There may have also been some suburban development at the base and lower slopes of Castle Hill, in the area known as 'Upmarket' in the 12th/13th century. Nevertheless, this was the first significant expansion across the Dour. Expansion westwards towards the port did not come until later and it was perhaps not until the 17th century that Snargate Street and the port area also began to be settled. By the end of the 19th century, the whole of the Dour valley bottom, a large proportion of the slopes on either side of it and the dry valleys on the north-eastern and south-western sides of the town were occupied with housing. What was originally a separate settlement at Buckland had, by this time, essentially become a northern suburb of Dover. Within the town there was also much rebuilding, often leading to the loss of medieval structures, and roads such as Cannon Street and Bench Street were widened leading to the demolition of more medieval buildings.

2.20 - One of the most striking aspects of Dover's heritage is the sheer scale of several of its key features. East of the town is what is arguably the largest castle in England. To the west is one of the largest post-medieval fortifications complexes in the UK. We should also mention the 19th century Fort Burgoyne which, though outside the project area, is also large and impressive. The port itself, the result of a number of different phases all of which have left their imprint, covers an area about 4 km^2 whilst the heart of the town was the site of three masonry Roman forts (one admittedly only very partially constructed). These were all huge undertakings, representing no doubt many millions of hours of effort by the builders that must have turned Dover into a hive of activity at different times in its past. This scale of construction, carried out across a range of periods, is highly unusual in a relatively small town. Such enormous investment shows how important it was that Dover was a success, both as a port and as a defended town. The massive nature of these sites

also means that with the exception of the Roman forts which are buried, all these sites remain highly visible today and are thus ever-present in the consciousness of the town. Some, such as the Castle, Western Heights and Fort Burgoyne, can still be visited while the port, if not strictly visitable can still be seen laid out in full from the Western Heights.

2.21 - The amount of information that can be extracted from archaeological remains depends in large part on the state of their preservation. In Dover, as in many towns, the state of preservation is very variable, but several sites have demonstrated the potential for archaeological deposits to survive to a very high degree. The most famous example of this is the bronze age boat whose survival was ensured by a combination of factors. The preservation of the timbers is the result of the boat having rapidly become waterlogged and covered in fine sediments, its longer term survival also owing much to the deep accumulation of deposits over it and the lack of later disturbance, including by development. Indeed, the presence of the former estuary basin and the valley of the river Dour both assist the preservation of archaeological deposits by creating circumstances favourable for preservation. An example of this was the suggested Roman breakwater discovered during the excavation of a gasometer pit in the 19th century. Even where deposits are not fully waterlogged archaeological material can survive in great volume. The Townwall Street excavations, for example, produced stratified deposits metres deep and an enormous amount of environmental evidence. This comprised evidence for fishing and domestic crafts, and animal remains including more than 83,000 fish bones. In other places preservation may simply be due to chance. The Roman Painted House, for example, survived in part because it was covered by the rampart of the Saxon Short Fort. It is nevertheless clear that Dover has great potential for the discovery of further very well preserved archaeological remains that can reveal much more about the lives of its residents in the past.

2.22 - Dover's rich heritage has an important role to play in the future life of the town. As reviewed in detail in the Dover Heritage Strategy, heritage can be a catalyst for economic and social regeneration by creating a sense of place and belonging for new developments. The re-use of heritage assets can bring environmental, economic and social benefits by reducing the energy cost of new buildings, by adding value to new developments and by reducing social exclusion. Heritage also enhances a town's tourism offer, provides opportunities for exercise and well-being, and contributes to the educational and cultural life of the residents.

2.23 - In Dover, however, there is undeveloped potential in the town's heritage. Dover suffered heavily from both bombing and shelling during the Second World War and the damage arising from this, together with some unsympathetic redevelopment since the war, degraded the town's historic character and destroyed many historic buildings. The dualling of the A20/Townwall Street, commercial development in St James and construction of apartment buildings along the harbour have all left the historic core of Dover feeling disconnected from the sea. There is also a lack of

connectivity between the Castle, which is a successful heritage site, and the town, where the heritage is less visible and struggling to emerge. Similarly, there is a lack of connectivity between the town and the Western Heights which are also facing an immense conservation and public access challenge. Dover also faces archaeological challenges. Key sites that would improve understanding of Dover's heritage remain buried such as potential further remains of the bronze age boat and large areas of the Roman forts. Other sites still await full publication such as the Anglo-Saxon and medieval features uncovered within Dover Castle in the 1960s, prehistoric and medieval discoveries in central Dover from the 1970s and 1980s and the A20 road and sewer scheme of the 1990s. Re-appraisal of some past discoveries is needed in light of more recent discoveries and Dover's heritage protection designations are also in need of review.

2.24 - To begin to address these weaknesses it is important to first understand where we are now, by gathering and mapping all the known data. This has been completed by the UAD data processing work (although it is of course an ongoing process that will require continuing work and hence resources). We then need to understand what the data is telling us about Dover's past, and what the key questions are? The former is the focus of this Characterisation which aims to provide the best picture we have today of the growth of Dover since its first prehistoric settlers, right up to 1900. It will also inform the latter as the process of characterisation has revealed gaps in our knowledge that can be the focus of research in the future.

3 - CHARACTERISATION

3.1 - Historic England has described character as an 'attempt to bring together as many aspects of a place as possible, in order to appreciate and understand it better'. The range of information about a place is enormously diverse and complex. For example, post-medieval Dover includes sites and buildings of a wide range of types – factories, shops, residential houses, streets and lanes, harbour installations, defences and fortifications, churches, leisure areas, parks, hotels and pubs etc. These sites and buildings also sit in a natural environment that itself includes many variables such as the landform and geology of the town – its valleys, hillslopes, river and waterfront. What we want to do is make sense of all this detail. What is all this data telling us about Dover's past, how the town 'worked' as a town and how it grew, changed and developed over the centuries?

3.2 - Characterisation is the process by which we make sense of the detail and try to understand a place in its totality rather than as a collection of individual sites or buildings. Characterisation can work at many different scales. It has been applied to whole regions and counties as in historic landscape characterisation, to towns or

villages, as in this project, or to individual archaeological sites, for example by using finds distributions to develop an understanding of the arrangement of working areas.

3.3 - Characterisation within the historic environment has now been applied to a wide range of contexts in the form of historic landscape characterisation, historic seascape characterisation, historic area assessments and in built environment and urban characterisations. It has been used to help understand the historic environment of towns across England including Sheerness, York, Chester, Lincoln, Bristol, Oxford, Gosport, Ipswich and many others.

3.4 - In the case of this project there were three main objectives for the characterisation:

- To identify patterns in the data that allow us to make generalized statements about spatial areas. For example, evidence of working surfaces and yards, hearths and furnaces, energy sources and waste products can lead us to conclude that an area was industrial in nature. Evidence of houses, cellars, cess pits, narrow lanes and domestic debris might allow us to conclude that the area was dedicated to domestic settlement.
- To understand how these spatially discrete areas, or components, relate to each other. This understanding helps explain how the town worked as a coherent entity and allows us to understand the 'big picture' for the town. To use the example above, if an area of domestic settlement is adjacent to an industrial area with direct communication links between the two, we might suggest that the occupants of the settlement may have provided the workforce for the industry. An area of settlement elsewhere in the town, far from the industry, probably did not, which might lead to insights about differing social status in different areas of the town.
- To understand how these components changed over time. Few towns are completely stable in their form and function and they generally change over time, growing, contracting and evolving depending on circumstances both within and external to the town itself.

3.5 - Characterisation thus provides a method of understanding complexity by summarizing and generalizing data. This does bring with it some risk, however. Summarising anything involves bringing out the salient details at the expense of details that differ from the group. In reality, no area of a town is completely homogenous. There will always be outliers in the generality of the data. Within an industrial area there may be a street of domestic houses. In settlement areas there will be occasional factories. Sometimes these outliers are all the more interesting as some historical process has led to them being placed in a location that is unexpected and for which there was clearly a competing use. It is important, therefore, that when considering a characterisation we do not ascribe to it the qualities of a map, where everything of interest is shown, rather it is a model, designed to explore the functioning of a complex system. It will always be important to return to the underlying data both to understand the model and to identify the data elements that

do not fit easily into it. Finally, it must be remembered that characterisation is data dependent. It is an interpretation of what is already known and cannot easily account for biases in the data due to biases in preservation, recording or publication. It may need to be repeated as significant new data becomes available.

3.6 - Characterisation is thus best seen as a research tool – a hypothesis about the working of a complex system that can be continually tested and modified. It raises questions in the mind of researchers and can help direct further research. It is a research tool rather than a planning tool, and development control decisions should not be taken based on a characterisation. It is rather part of the evidence base that can help inform development control decisions.

4 - PALAEOLITHIC (C. 950,000 BC TO 11,000 BC)

Introduction and Summary of Potential

Figure 4.1 – Palaeolithic Handaxe © Portable Antiquities Scheme

4.1 - The palaeolithic is the period that includes most of human prehistory. Despite its great longevity, however, archaeological evidence from the period can be difficult to find due to the small numbers of early human individuals (or hominins) present at any given time and the enormous landscape change that has taken place since. Nevertheless, although it can be difficult to locate palaeolithic artefacts and deposits in this area, such discoveries could prove to be archaeologically important. The south-east of England, and Kent in particular, is of great importance for the study of palaeolithic archaeology. Never covered by ice, the region was exploited by early humans for much of the palaeolithic period and a wealth of artefactual and faunal evidence has been produced in the county. No definite palaeolithic discoveries have been made in Dover town although in part this may be because fieldwork in the town has not been designed with the palaeolithic in mind. A deposit led approach is likely to be more revealing when attempting to understand the palaeolithic period in Dover. We know that underlying the Holocene sediments there are coarse, angular Pleistocene gravels along the length of the Dour Valley (from at least Crabble to the Western Docks) and it is likely that these gravels will contain re-worked and possibly in-situ artefacts. There is also the potential for faunal remains to be uncovered within the town, as they have been on several previous occasions in the form of mammoth teeth (five so far have been recorded). On the valley margins there are likely to be brickearth deposits, including buried palaeosols of late Pleistocene/early Holocene date. These could again contain faunal remains and/or other paelaeo-environmental indicators (e.g. mollusc assemblages), as well as reworked and potentially *in-situ* artefacts. There may also be level terraces and/or topographic depressions beneath the brickearth deposits on the gentle slopes at the base of the valley sides where artefact bearing deposits might survive. It is possible that palaeolithic artefacts in Dover town may have rolled or washed into the valley from these deposits on the slopes above.

4.2 - In the landscape immediately surrounding the town there is a much higher quantity of palaeolithic finds, many of which have been discovered in relatively large groups, and the potential to reveal more is high. These have mainly been located

within or on the edge of the clay-with-flints geology. Artefacts found within such deposits are unlikely to have travelled far from where they were deposited and therefore have considerable potential to inform our understanding of the oldest human/hominid occupants of Dover. Overall despite the relative lack of finds within Dover itself, the geological potential in the town and valley sides, alongside the known concentrations of finds in the surrounding landscape, suggest that it could be an important location for the study of the palaeolithic period, particularly if it is subject to detailed geoarchaeological investigation.

4.3 - The palaeolithic period in the UK occurred entirely during the second half of the Pleistocene geological era which ended at the beginning of the Holocene c. 11,600 years ago. It is divided into three main parts – the lower palaeolithic (c. 950,000 BP to c. 480,000 BP), the middle palaeolithic c. 425,000 BP to 35,000 BP) and the upper palaeolithic (c. 35,000 BP to c. 9,600 BP). The date ranges suggested for each part of the palaeolithic have changed fairly significantly over the years as archaeological research has refined our understanding of the development of the period and clarified aspects of the dating. Dating palaeolithic material is particularly difficult but there are several methods of absolute dating that have been developed to help. Carbon-14 dating is helpful but only for organic material and only up to c. 50,000 BP. Optically stimulated luminescence dating is useful for dating sand particles up to c. 400,000 BP, Uranium series dating can date bone over about the same time period and amino acid racemisation can date mollusc shells from c 20,000 BP to 400,000 BP. All these methods have their weaknesses however and none work for the oldest palaeolithic material. In most cases, therefore, palaeolithic material has to be dated on the basis of the technology of the artefact and the geological deposit in which it is found which is itself dated on the basis of other deposits or biological correlation.

Geology and environment in the palaeolithic period (Fig. 4.2)

4.4 - During the palaeolithic period the environment of east Kent was very different to today. The extremely long duration of the period (far greater than all the other archaeological periods added together), meant that within a single archaeological period there were repeated and dramatic changes in climate. Phases of intense cold alternated with warmer periods, sometimes far warmer than modern Britain. At times great ice sheets covered much of the country. None ever reached Dover but during such cold periods the area would at times have been similar to Arctic tundra. At other times, the temperature rose to the point where tropical flora and fauna populated the landscape. The fluctuating temperatures caused significant changes in sea-level as ice alternately formed and melted. The Channel seems first to have been formed beginning c. 450,000 years ago when a proglacial lake in the North Sea basin began to break through to the south. Since that time, the Channel was often a barrier during warmer periods and it was only in colder phases, when an increase in ice formation lowered sea levels, that hominins from Europe could walk across to England. The tremendous climatic changes had a significant impact on the ability of hominins (both older forms such as Neanderthals, and modern humans who first arrived in Britain in

c. 40-35000 BP) to survive in, and exploit, the landscape. During the coldest phases, habitation was impossible and there were times when there is currently no evidence of hominin presence in Britain at all (for example between c. 125,000 to 115,000 BP and between c. 25,000 and 19,000 BP). At other times, however, Britain was much more temperate, and evidence of hominin life can be found across the country.

4.5 - In Britain there is, so far, no evidence of palaeolithic houses, and it is assumed that rather than staying in one place hominins moved around the landscape. There is evidence from caves and rock shelters that suggests that some locations were visited frequently, particularly in the middle and upper palaeolithic. Most of the evidence for the palaeolithic comes from flint and other remains lost during this mobile way of life. Only a small proportion of such remains have survived to the present day, however. The most common discoveries are flint tools and waste flakes. These are much more durable than other materials exploited during the palaeolithic such as wood, antler or bone although these also sometimes survive, more often as part of the background environmental evidence than as worked artefacts. In the Upper palaeolithic the range of survivals increases and there is more evidence of worked wood and bone, sometimes with artistic elements, and also of decorated cave walls, though there is no evidence of this from Kent.

4.6 - Crucial to achieving an understanding of the palaeolithic is understanding how and when geological deposits are laid down and where they are located. In the palaeolithic, as in later archaeological periods and indeed today, hominins would have been attracted to particular locations. This might be because they contained valuable resources such as flint, water or shelter, because they contained particular plant species, or because they were used by the animals they depended on for food. There might also be established routes across the landscape or places where they might have encountered other hominins. The best way to locate such places is to identify the deposits that were laid down at the time. Sometimes these deposits may preserve the archaeological remains *in-situ.* In other places the deposits may preserve places where artefacts were concentrated by natural processes such as rivers, floods or landslides.

4.7 - Geologically, Dover sits in an area of chalk downland, dissected by the Dour valley running north-west to south-east and by dry valleys dipping north-east. These valleys often have Head brickearth or gravel slopewash deposits on their sides and in their bases. The deposits generally date to the Devensian geological period (c. 100,000 to 18,000 BP). Between higher points the brickearth may be wind-blown rather than hillwash. Capping the Chalk, and the main Pleistocene deposit in the Dover area, is clay-with-flints. This is a residual deposit that develops on top of Chalk by long-term weathering of the chalk bedrock. Although clay-with-flints has been accumulating for far longer than hominins have been in Britain, it can contain pockets of more recent material including sand and brickearth. It is spread widely across east Kent, including near Dover. The edge of clay-with-flints patches were

probably a good source of raw flint material and it is the deposit that has produced most palaeolithic evidence in the Dover area, albeit in reworked and residual forms.

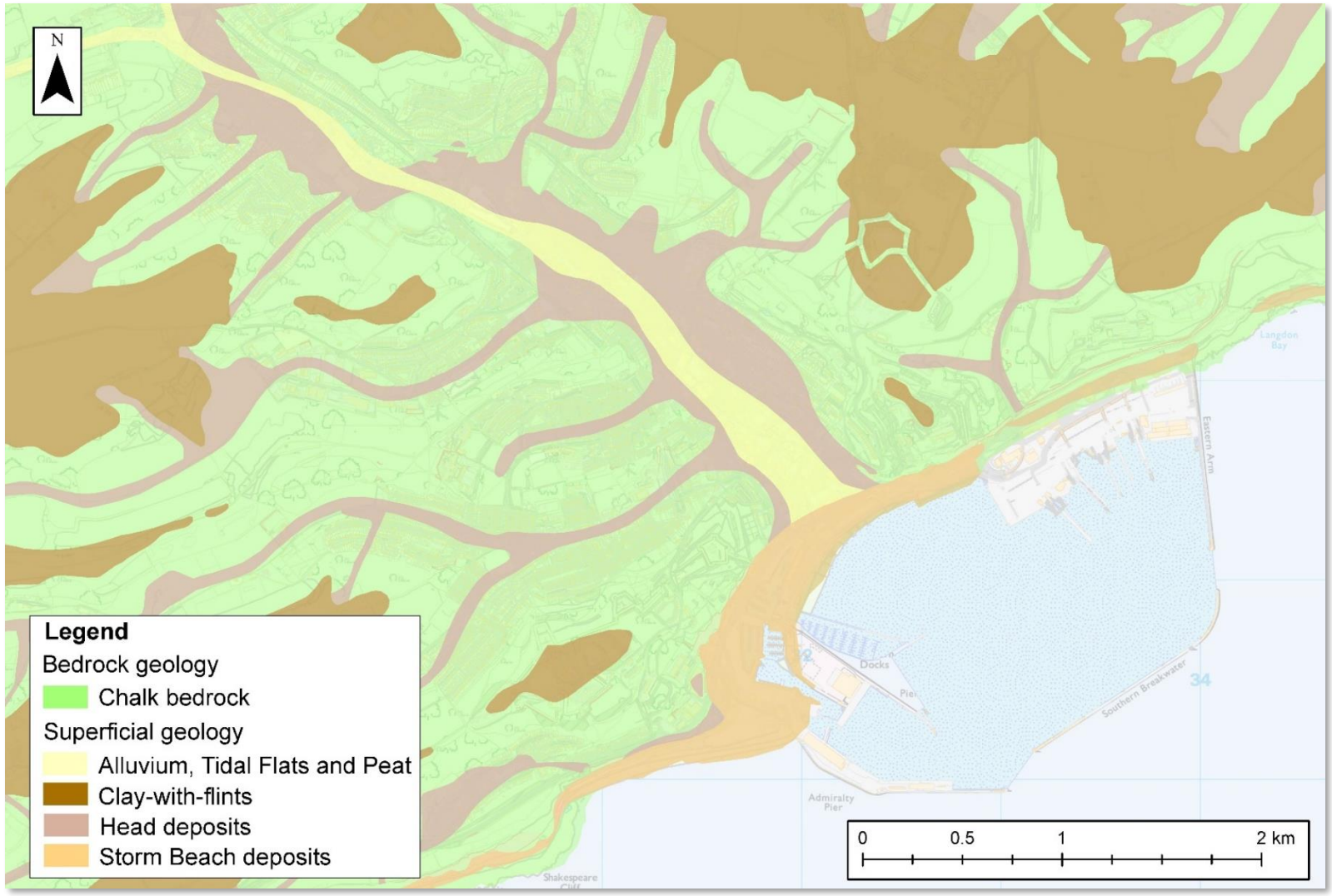

Figure 4.2 - Dover geology and topography

Palaeolithic discoveries in the Dover area (Fig. 4.3)

4.8 - Palaeolithic discoveries within Dover town itself are scarce. Two flint implements were discovered on Saxon Street in 1949/1950 and were donated to Dover Museum (TR 34 SW 1865). One of these was interpreted as being palaeolithic in date although it is not known if this identification is correct (Dover Museum, 2017). The only other artefacts found within the town and which date to this period are several mammoth teeth. The first mammoth tooth discovery was made during the construction of the Admiralty Pier Extension in the 1890s, when two were uncovered (TR 34 SW 1773) (McDakin, 1899). Another was recorded during the construction of the National Westminster Bank on Market Square in the 1950s (TR 34 SW 2787). Its' current location is unknown, but it was for some years displayed in the bank (Port of Dover, 2020). Finally, in 2017, excavations carried out as part of the Dover Western Docks Revival Scheme also recovered two more mammoth teeth (TR 34 SW 2786). It is not known whether any of these teeth were from *in-situ* deposits and it may well be that they were rolled down the valley from upland areas.

4.9 - Though there are few palaeolithic discoveries within the town itself, more have been found in the landscape surrounding it. The majority of these discoveries are from the area of clay-with-flints that lies above the eastern rim of the Dour valley, to the north-east of the town. They consist of surface finds of groups of palaeolithic handaxes, flint scatters and a mixture of both with a notable concentration around Whitfield. The largest group was discovered at Green Lane, Whitfield by the Canterbury Archaeological Trust (Parfitt & Halliwell, 1996). It comprised a flint scatter including at least five handaxes and 100 pieces of debitage (TR 24 NE 68). Less than 300m to the south-east of these finds, another two palaeolithic handaxes (TR 24 SE 34) were found during the construction work for the Dover to Lydden bypass in 1975 (Hutchinson, 1976). At the White Cliffs Business Park on the south-eastern side of Whitfield two further artefact groups have been observed: one on Honeywood Road (TR 34 SW 935), and another approximately 625m to the east of the first, off Kedleston Road (TR 34 SW 908). The finds include handaxes, a scraper, cores and multiple flakes (CAT, 1999 and CAT, 2010).

4.10 – Findspots are also known from other parts of this clay-with-flints outcrop. For example a short distance to the east of Whitfield in the vicinity of Guston, on the very edge of the clay-with-flints and on the chalk downland just to the north, a number of individual palaeolithic flints have been recorded (TR 34 SW 1098, TR 34 SW 91, TR 34 SW 92, TR 34 SW 1097). All of these were found during works on the bypass and include at least 6 probable handaxes, several flakes and other waste (Parfitt, Gaunt & Halliwell, 1977). Another separate outcrop of clay-with-flints, again located to the north-east of Dover at Langdon Cross, has also revealed a significant flint scatter. It was found during fieldwalking in 1995 north-west of West Cliffe church and included

6 complete handaxes, 3 fragmentary handaxes and 200 struck flints (TR 34 NW 334) (Parfitt & Halliwell, 1996).

4.11 – There are fewer palaeolithic find spots on the western side of Dover, but a second (smaller) concentration of palaeolithic artefacts has been observed, largely in the vicinity of St. Radigund's Abbey. The finds were again from an area of clay-with-flints, this time with overlying patches of sand and brickearth. In 1999 archaeological work at St Radigund's Farm produced a total of 521 pieces of flintwork (TR 24 SE 206), three of which were flint flakes with a patina suggesting they were of palaeolithic date (CAT, 2009). Two handaxes were also found at nearby Sleed Wood in the 1970s (TR 24 SE 208 & TR 24 SE 207). One was of a distinctive Mousterian 'bout-coupé, form (Halliwell & Parfitt, 1993). Slightly further to the west at Hougham, three probable palaeolithic waste flakes were found during the construction of a pipeline (TR 23 NE 232) on the edge of a clay-with-flints and sand/brickearth (CAT, 1998). Overall, it seems despite a lack of artefacts within Dover itself, the palaeolithic period is quite well represented in the finds from the areas surrounding the town.

Palaeochannels

4.12 - The great climatic changes that occurred throughout the palaeolithic period saw the formation of the English Channel in stages and over a long period of time, beginning c. 450,000 BP. During the warmer interglacial phases, the UK would have been cut off from the continent but in the colder periods, with lower sea levels, a land bridge would have been present with channels through which water would have run. These channels, called palaeochannels, are now below sea-level but they still have the potential to contain palaeolithic deposits. Further research is needed to identify the location and extent of these channels, but a geophysical survey carried out in Dover harbour located at least one possible palaeochannel (TR 34 SW 2746). Further study of this channel could produce important evidence of palaeolithic activity in the landscape that later became the English Channel (Maritime Archaeology, 2008).

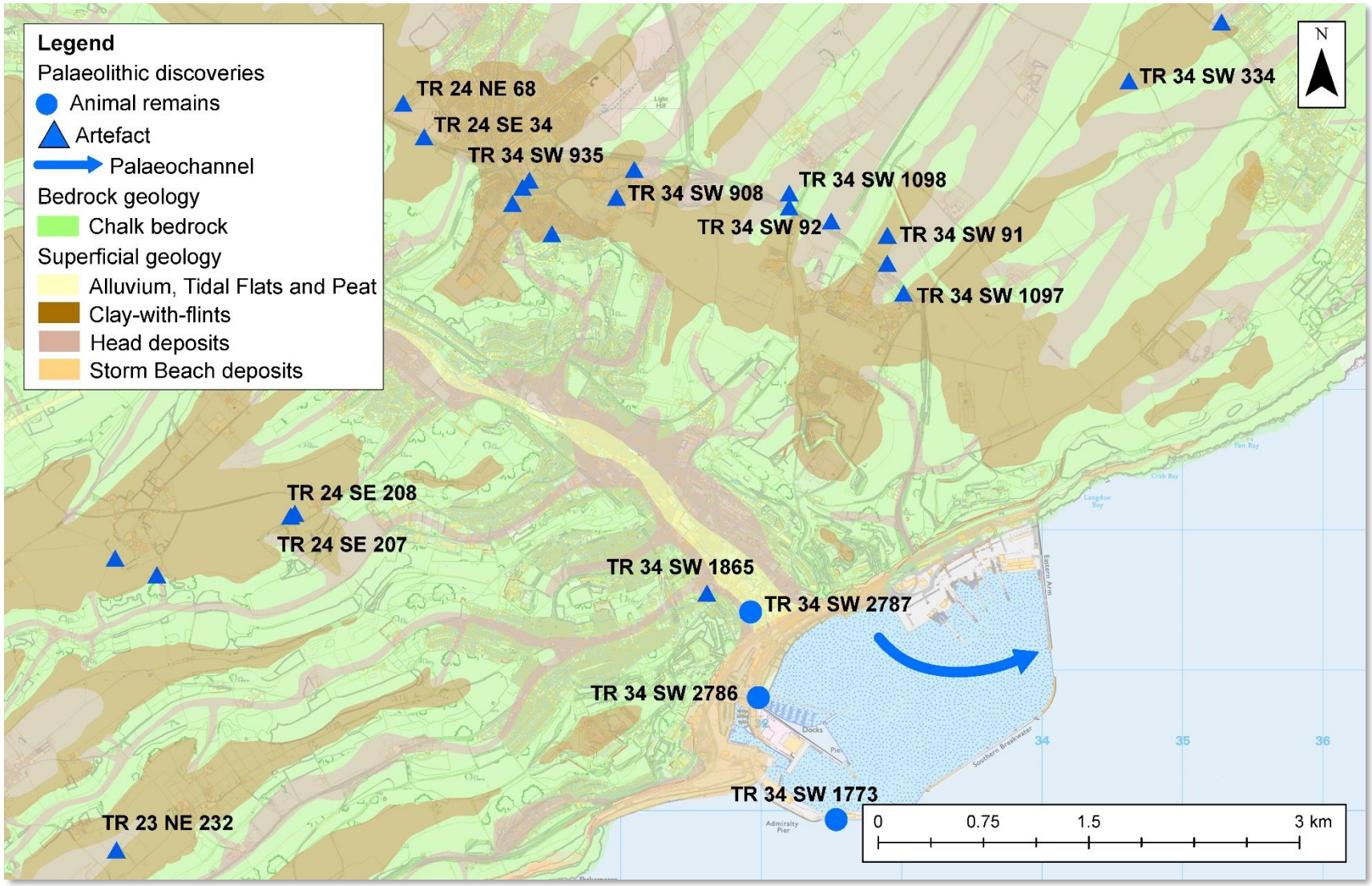

Figure 4.3 – Palaeolithic Dover

A topographic model for palaeolithic Dover (Fig. 4.4)

4.13 - Due to the nature of palaeolithic archaeology, it is impossible to produce a detailed characterisation of the palaeolithic activity at Dover as we would for later periods. Based on the known geology of the Dover area, and the archaeological discoveries described above, however, we are able to propose a topographical model of the Dour valley, characterise the sediments in the area of the model and make high level predictions about the archaeological potential. This topographical model divides the Dour valley into 5 broad zones:

4.14 - Zone 1 comprises the high downland plateau through which the river Dour cuts in a south-easterly direction towards the gap in the cliffs at Dover. The plateau is chalk bedrock capped with thin soils. There are frequent large deposits of clay-with-flints (laid down between c. 2.58 million years ago and 11,700 years ago) generally running in striations north-east to south-west. There are also significant outcrops of head deposits, particularly behind the edges of the valley to both east and west, and patches of late Pleistocene loess may also be possible, laid down between c. 126,000 years ago and 11,700 years ago. There is potential for surface lithic scatters, including lower palaeolithic artefacts and in the loess patches, the possibility of mollusc and small mammal remains.

4.15 - Zone 2 runs along the steep upper valley sides and higher-level coombes on the east side of the Dour valley. It is characterised by thin soils above chalk and localised head deposits consisting of gravels and clay/silts. There is potential for the discovery of surface lithic scatters, perhaps originally derived from Zone 1 and low potential for palaeoenvironmental remains, mainly reworked molluscs and vertebrates.

4.16 - Zone 3 comprises the gentle valley slopes that lie between the steeper slopes and the valley floor consist primarily of head deposits and colluvium. The head deposits consist of gravels and clay-silt of late Pleistocene age (c. 126,000 to 11,700 BP). The zone also contains interbedded palaeosols of late Pleistocene and Holocene date (i.e. from c. 20,000 to 11,700 BP). There is potential for the discovery of reworked palaeolithic artefacts derived from upslope and *in-situ* artefacts associated with palaeosols. Within the palaeosols there is also medium to high potential for the recovery of molluscs and small mammal remains.

4.17 - Zone 4 is the floor of the Dour valley from Townwall Street to the outer limits of the model just south of Crabble Mill. Late Pleistocene sediments that can be anticipated in the Zone include coarse angular gravels of Pleistocene river channels that once flowed through the valley and clay silts of head deposits. There is potential for reworked artefacts and possible *in-situ* artefacts associated with finer grained head deposits. There is low palaeoenvironmental potential in this zone. Reworked large mammal remains may be found in the gravels while reworked molluscs and vertebrates may be recovered from the head deposits.

4.18 - Zone 5. The model includes three Zone 5 areas, each representing large dry valleys to the west of Dover and running from the uplands down to the river Dour. Geologically, these Zones are characterised by a number of late Pleistocene deposits including spreads of head deposits (including colluvium) consisting of gravels and clay-silts and by interbedded palaeosols of late Pleistocene age. There may also be gravel lags on the base of the valley. There is potential for the discovery of reworked palaeolithic artefacts derived from upslope and in-situ artefacts associated with palaeosols. There is variable potential for palaeoenvironmental remains in this Zone. The head deposits and gravel lags have low potential, mainly for reworked molluscs and vertebrates. The palaeolsols have medium to high potential for the recovery of molluscs and small mammals.

Further Reading

4.19 – Development-led archaeological investigation has revealed many archaeological discoveries in and around Dover. Information about these is generally in the form of unpublished reports that are held in a digital format by the original excavators and by Kent County Council. Information about the discoveries has been included in the Kent Historic Environment Record and is available online:

- https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

The Portable Antiquities Scheme's database is also a useful tool. This is available to search online:

- https://finds.org.uk/database

For an overview of prehistoric Kent :

- The Palaeolithic archaeology of Kent. (2007). In J. Williams (Ed.), *The archaeology of Kent to AD 800.* Boydell Press.

To understand the role of Kent in the wider context of south-east England:

https://www.kent.gov.uk/leisure-and-community/history-and-heritage/south-east-research-framework

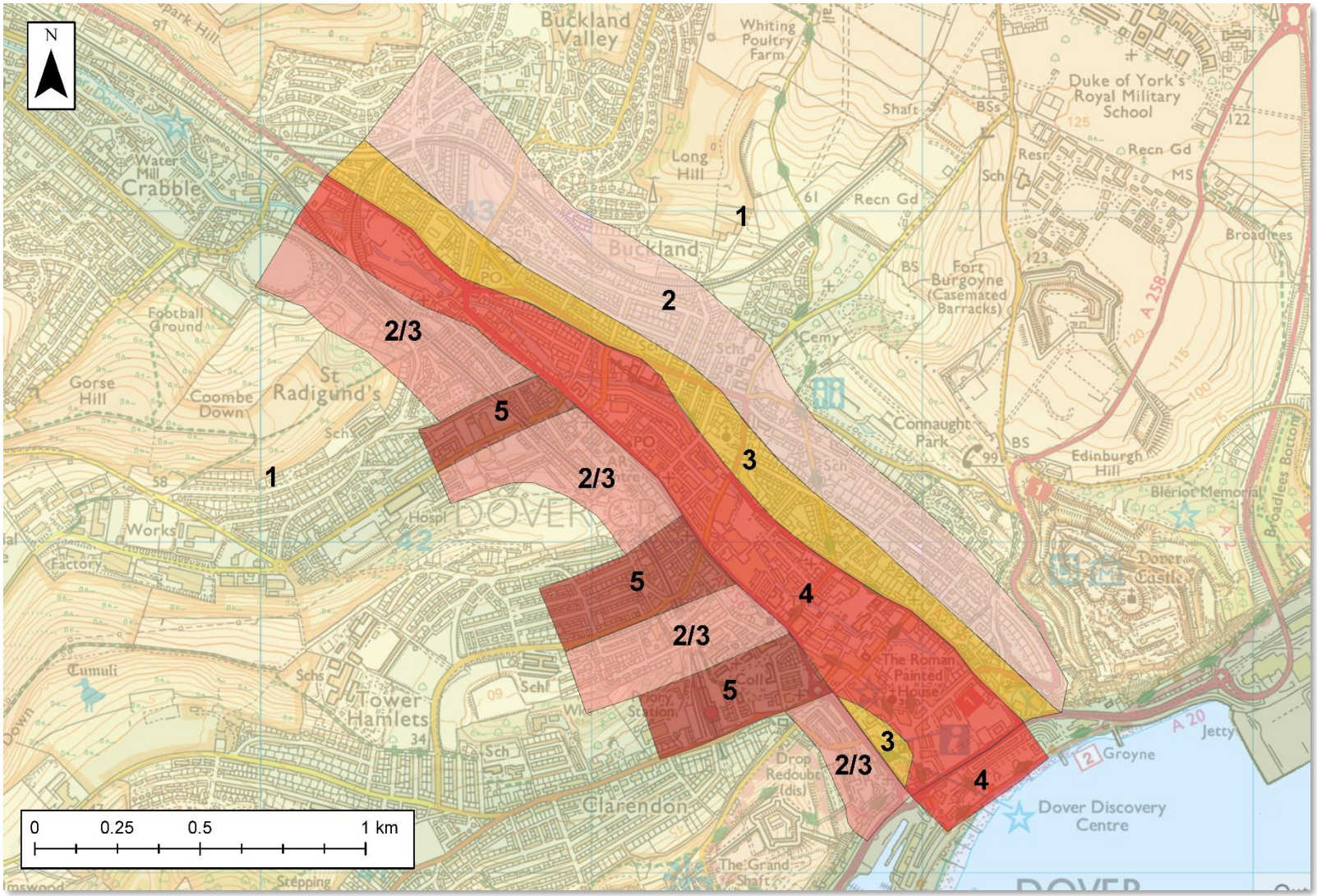

Figure 4.4 - A topographic model for palaeolithic Dover

5 - LATE PREHISTORIC (C. 11,000 BC TO AD 43)

Introduction and Summary of Potential

Figure 5.1 – Excavation of the Dover bronze age Boat. Image from Dover Museum

5.1 - Dover town centre has been extensively excavated over many years and particularly from the 1960s onwards. The spectacular Roman discoveries, and the extensive remains of later periods, have dominated archaeological publication, but enough information has been produced to suggest that Dover also contains significant archaeological remains from the later prehistoric period. The recorded features include a possible neolithic or bronze age ring-ditch, beaker burials from Castle Mount Road and Connaught Park, two bronze age hoards including the Langdon Bay wreck, and the extraordinary and internationally important bronze age boat from beneath the A20. From the iron age there is known to have been activity and occupation beneath York Street and possibly settlement on Castle Hill. Many of these prehistoric features and finds were located during deep excavations and it is likely that more remain to be discovered beneath the streets of Dover at depth. The lack of detailed publication makes it difficult to define any detailed plan components as will be done for later periods, but what has already been discovered in the town makes it clear that Dover has considerable potential for further significant later prehistoric discoveries. It will require more archaeological investigation, and fuller publication of past discoveries, for the full later prehistoric potential of Dover town to be better understood.

5.2 - For the late prehistoric periods it has not been possible to define plan components due to the paucity of late prehistoric evidence within the study area. Instead, the late prehistoric context will be considered by period, and the nature of the available evidence reviewed. Finally, a topographic and geological model that has been prepared for the late prehistoric period in Dover town centre will be described.

Geology and environment in the late prehistoric period

5.3 - The project's study area is defined by the valley of the river Dour. The term 'river' is possibly misleading in this context, however, as the Dour was probably never more than a chalk stream in the Holocene (c. 11,000 BC onwards) and may always have been fairly narrow and shallow. The river has two main sources at Temple Ewell and Alkham from where streams flow down into the valley. These join at Kearsney and from there flow south-east into the English Channel through a gap in the chalk cliffs. The cliffs themselves are formed mainly of middle and lower chalk and have continually eroded since Britain was finally separated from the continent c. 8,000 years ago. For most of prehistory the coastline was significantly further out to sea than at present but rising sea-levels since the end of the last glaciation have seen the coastline retreat to its current position.

5.4 - Inland, the chalk is capped with coombe deposits which are chalky clay deposits containing flint fragments. The uplands on either side of the river are remnants of a series of terraces cut by the river during the Pleistocene era. Along the valley bottom the valley floor is covered with river gravels and silt. By the later prehistoric period the landscape had more or less taken on its current shape and form and more recent changes were limited to meanderings in the route of the river and periodic braiding of the channels.

5.5 - At the mouth of the Dour, however, there has been significant change since the late prehistoric period. By the beginning of the Roman period the Dour had a wide river mouth which provided a natural harbour that the Romans exploited. Towards the end of the Roman period, however, longshore drift caused a shingle barrier to begin to grow from north to south across the harbour. The river was forced to the west to find an exit to the sea and the land behind the barrier gradually dried out.

5.6 - At different times different soils will have been attractive to prehistoric peoples for farming. The development of agriculture during the neolithic period (c. 4,000 to 2,350 BC) led people to exploit river valleys because the light soils were suitable for farming, but other areas would have been exploited for hunting and gathering, and the river and sea for fishing. As the population grew, transportation routes along valleys and over the hills, and by sea, enabled wider communication which in turn led to more complex societies and greater sharing of cultural traits.

Mesolithic (Fig. 5.2)

5.7 - The last glaciation reached its maximum c. 18,000 years ago, during which time humans left Britain because of the extremely cold conditions. The period of warming which followed this glaciation marks the end of the palaeolithic period and as the climate warmed, humans returned via the land bridge that still existed between Britain and the continent. The land bridge, though diminishing, remained in existence during the earlier part of the succeeding mesolithic period (c. 11,000 to 4,000 BC), until c. 6200 BC when it was eventually breached. Until this time, people would have taken advantage of the natural resources available in the low-lying ground beneath what is now the sea as well as those in the surrounding landscape. Farming had not yet been developed. Mesolithic people were hunter-gatherers and the river, coast and woodlands would have provided a variety of food sources. The chalk downs would have been a source of flint for tools. The variety and sophistication of flint tools rose dramatically during the mesolithic and access to flint resources was extremely important in this period.

5.8 - In Kent discoveries of mesolithic flints are numerous, but in and around the town of Dover, as elsewhere on the chalk downs, they are fairly rare. Within the town itself only four (possible) findspots are known. The first was recorded to the west of the town centre, near Archcliffe Fort and consisted of a tranchet axe which is now in the British Museum (TR 33 NW 2) (Southern Water Services, 1993). A prehistoric flint scatter comprising 50 residual flints were uncovered within colluvial layers during excavation ahead of development at 70 Maison Dieu Road in 2011 (TR 34 SW 1780). Most of the flints within this assemblage were either neolithic or bronze age in date but the cores (two cores were noted in the assemblage) were both regularly worked and the single platform blade core may date from the mesolithic or early neolithic (SWAT, 2011). Two further discoveries of a possible mesolithic date have been recorded, one on Saxon Street which was donated to Dover Museum in 1950 (TR 34 SW 1865), and another near the church of St Martin-le-Grand in 1955 (TR 34 SW 1256) (Rahtz, 1958).

5.9 - More mesolithic findspots have been recorded within the landscape surrounding Dover, though again they are not especially common. There appears to be a relative concentration around St Radigund's to the north-west of Dover, with two excavations in this area having produced flint artefacts of a mesolithic date. In 1999 the Canterbury Archaeological Trust carried out a watching brief on topsoil stripping in preparation for the construction of a new agricultural building at St Radigund's Farm (TR 24 SE 184). Among a large prehistoric flint collection, adzes and picks were dated to the mesolithic, along with a blade core and three worked blades (CAT, 2009). Approximately 800m to the north-west, several tranchet axes, blades, flakes, microliths and other flints were found by Peter Tester and are now in the Tester collection at the British Museum (TR 24 SE 28). Another artefact was found at Farthingloe (MKE64192), also on the western side of the Dour valley and 1.5km to the south of the finds at St Radigunds. To the east of Dover, discoveries have been

made at Honeywood Parkway (TR 34 SW 613) (CAT, 2000) and at Swingate (TR 34 SW 1029). The latter was part of a continuous scatter of prehistoric struck flint comprising 524 individual pieces mostly of late neolithic and bronze age character but included a handful of pieces that could be of mesolithic date (Parfitt, 2003). It seems therefore, that finds of mesolithic material are rare and uncertain in this area. It should be noted, however, that even today it is difficult to accurately date later prehistoric flints and it is quite likely that some flints interpreted as being of neolithic date are in fact mesolithic in origin.

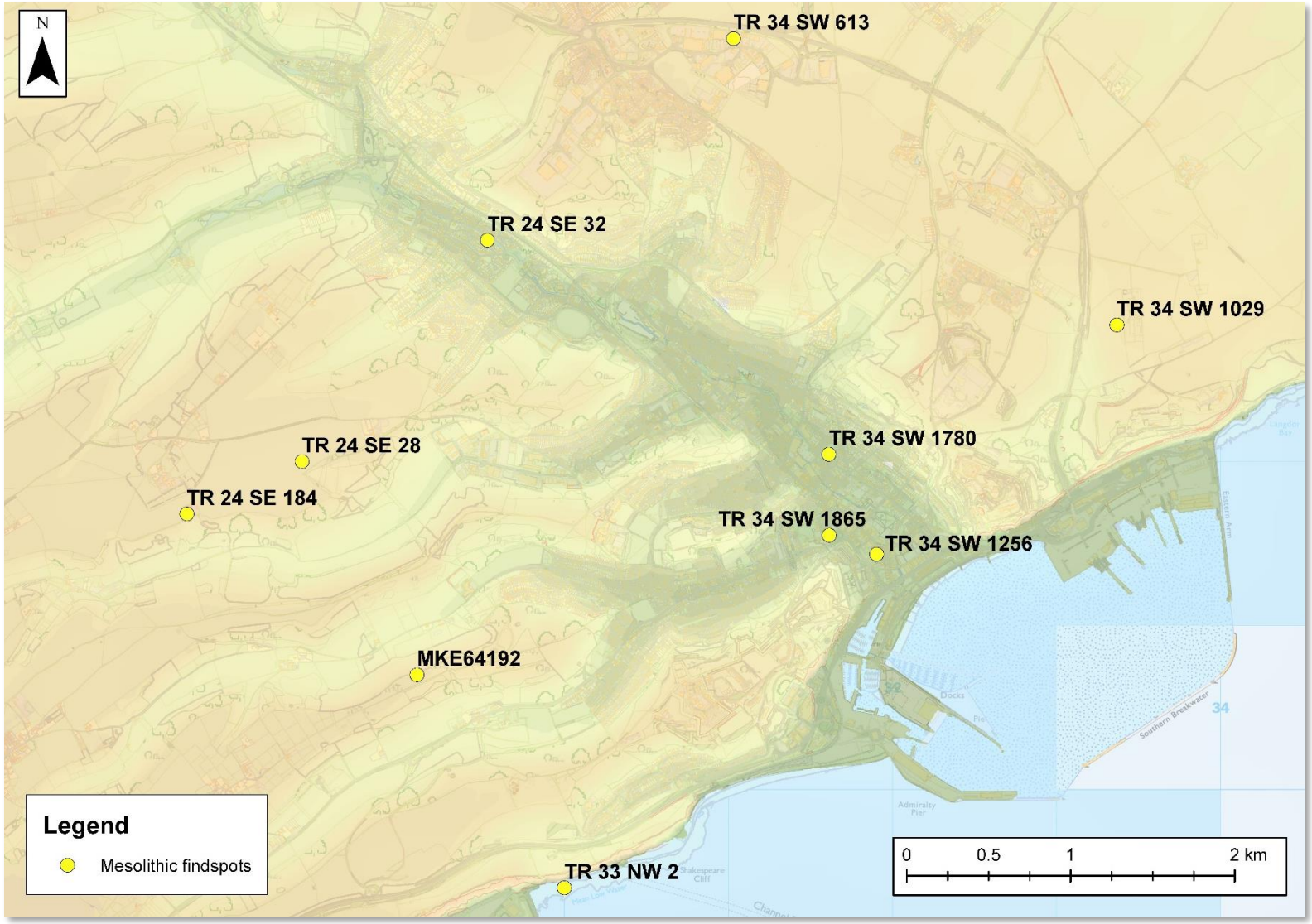

Figure 5.2. - Mesolithic Dover

Neolithic (Fig. 5.3)

5.10 - The neolithic period saw several large and dramatic changes to the landscape in Kent. Woodland clearance, which began in the late mesolithic, was extended during the neolithic period following the introduction of farming. Though hunting and gathering remained a significant aspect of neolithic life, arable farming also arose on a large scale and a range of domesticated animals were kept such as cattle, sheep, goat and pig. An important consequence of the introduction of farming was that people became more sedentary, living in settlements close to their fields. They became more dependent on, and attached to, their local landscape and valued the connection that they and their ancestors had with the land. This is evidenced by changes in their ritual life including the first monumental construction in Britain. This is most clearly seen in Kent on either side of the river Medway, and also along the river Stour, where large burial chambers – barrows – were built to house the dead. These early barrows differ to those found in later periods and are often elongated or oval shape. In areas without barrows burials accompanied by grave goods demonstrate the importance that people attributed to the dead. The increasing complexity of society is also suggested by other monuments constructed for purposes that are presumed to be ritual or social in nature such as causewayed enclosures and henges.

5.11 – Evidence for neolithic activity within Dover has been uncovered on several occasions. The excavations carried out across a large part of the town centre by the Kent Archaeological Rescue Unit in the 1970s and 1980s recorded a variety of neolithic features and finds. These included a neolithic pit at the Burial Ground site (TR 34 SW 2778), a possible neolithic ditch and pits at the Car Park site (TR 34 SW 2777), a neolithic or bronze age ring ditch, gully and pit beneath Market Street (TR 34 SW 2775), a spread of flint implements beneath the Paint Shop and Warehouse South sites (TR 34 SW 2774) (1973) and a neolithic flint working floor at the Paint Shop Extension site. Neolithic deposits were also recorded at Cannon Street West (TR 34 SW 2773) and pottery and flints were found beneath the Roman Painted House (1970-1977) (TR 34 SW 85). The detail of this prehistoric activity has not been fully published but the information that we do have certainly seems to indicate neolithic activity and possibly settlement within the centre of Dover. This evidence is supported by discoveries from later excavations. For example a total of 89 struck flints dating to the late neolithic/early bronze age were found during a watching brief at the Unitarian Church on Adrian Street in 1995 (TR 34 SW 670) (Parfitt, 1996). The lower slopes of the Dour valley sides have also produced neolithic finds, many of which have been interpreted as having been washed downslope from where they were initially deposited. An example of such a site was at the former Royal Mail sorting office on Maison Dieu Road where a flint assemblage comprising mostly neolithic and bronze age flints was found in colluvial deposits (TR 34 SW 1780). The flints included blades and bladelets typical of the neolithic as well as broad flakes and cores of probable neolithic date (SWAT, 2011). On the other side of the town, at

Archcliffe Fort, prehistoric struck and burnt flints associated with a single pottery sherd were identified (TR 34 SW 1444). It has been suggested that the promontory was used for occupation in the late neolithic/early bronze age period (CAT, 2001).

5.12 - Neolithic activity is also evidenced in the neighbouring landscape. For example, at Buckland approximately 1.5km north-west of Dover town centre, a series of prehistoric terraces were found cut into the hill (TR 34 SW 992). The terraces followed the contours of the hill slope and the excavators suggested that they may represent a field system, perhaps in use from the neolithic onwards, something which is of regional if not national significance (Parfitt & Anderson, 2012). No other features are known but findspots include a neolithic stone axe head that was found in Priory Valley, less than 1km to the north-west of Dover Castle (TR 34 SW 47) (Page, 1908) and a leaf-shaped arrowhead that was found near the Danes Recreation Ground in 1959 (TR 34 SW 69).

5.13 – Further out from the town centre, no occupation sites have been found that are definitively neolithic in date. Around Whitfield several phases of archaeological excavation have revealed prehistoric occupation and extensive collections of worked flint, but all seem to straddle the late neolithic/early bronze age periods. Other than this, neolithic finds consist of numerous stray arrowheads, whole or partial stone axe heads or other small flint assemblages too numerous to be detailed here. Thus it seems that in this part of Kent, despite a relative paucity of evidence and incomplete publication, the main focus of neolithic activity is in the town of Dover itself and focused on the valley floor, presumably so that the inhabitants could take advantage of the fertile soils in the valley, as well as the river, the coast and the hills above.

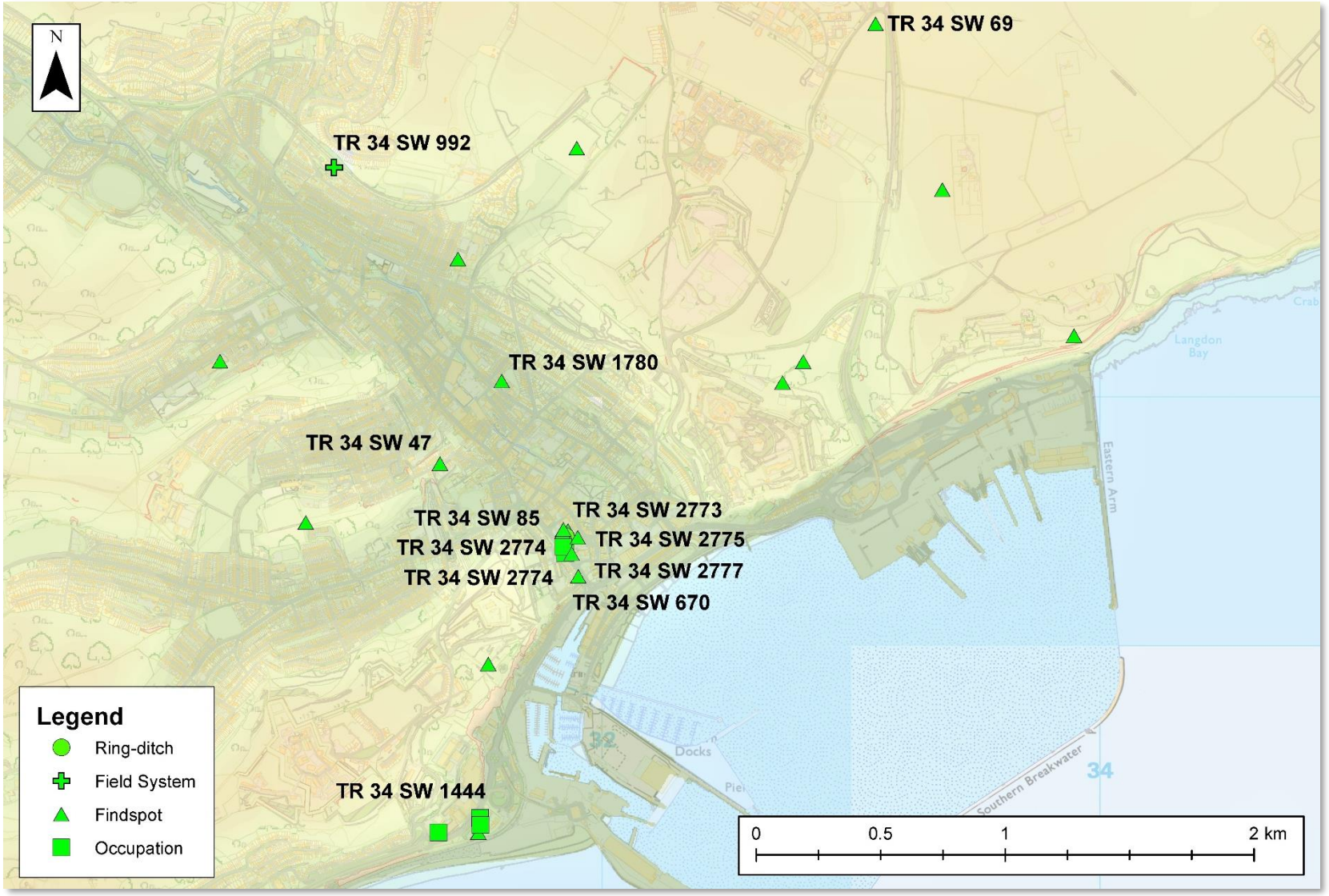

Figure 5.3 – Neolithic Dover

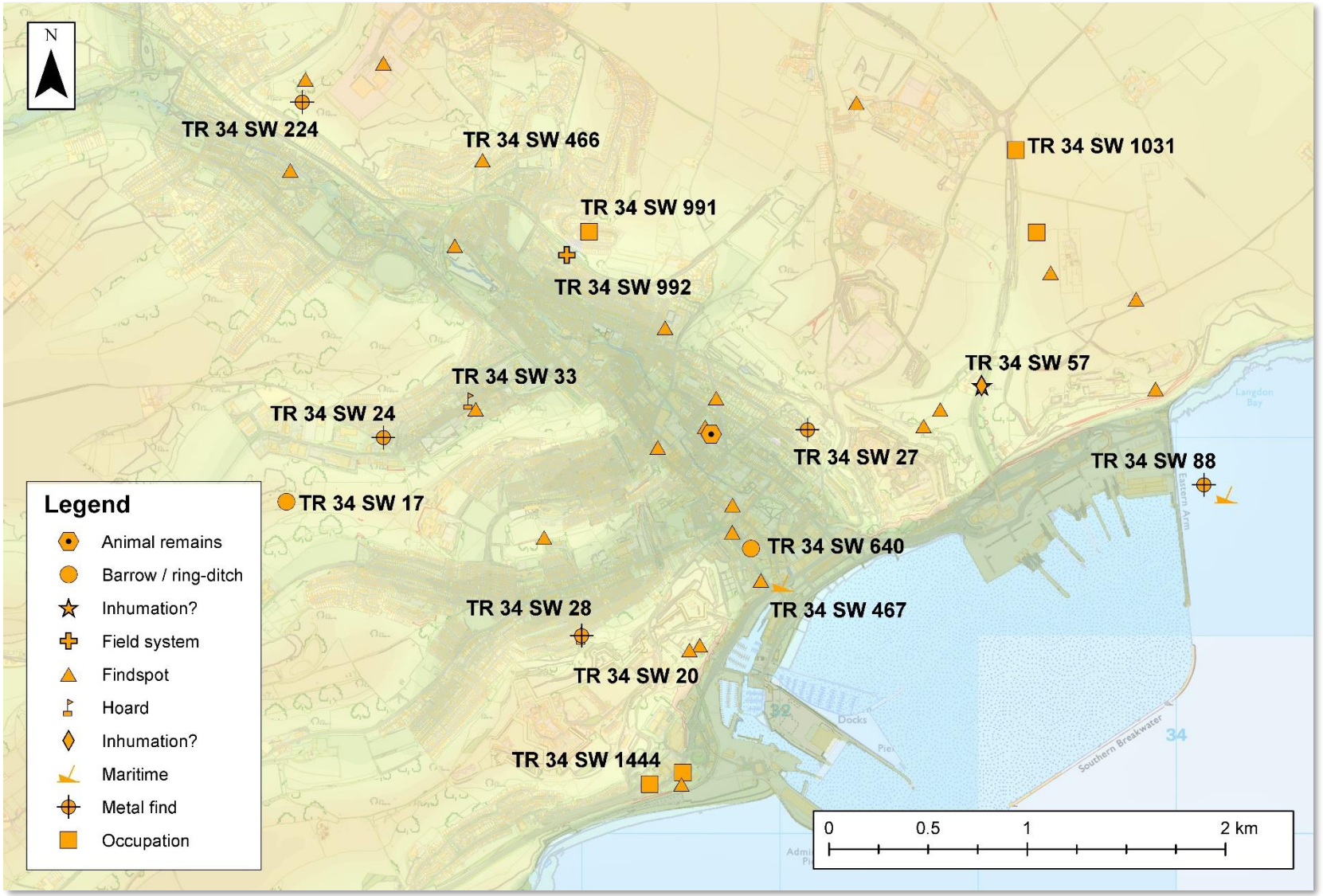

Figure 5.4 - Bronze age Dover

Historic England

Kent County Council kent.gov.uk

CANTERBURY ARCHAEOLOGICAL TRUST LTD

DOVER DISTRICT COUNCIL

Bronze age (Fig. 5.4)

5.14 - During the bronze age, many of the patterns of life established in the neolithic carried on largely unchanged. The clearance of the landscape continued although the scale of field systems increased significantly as a rising population and better technology allowed larger groups of people to work together to exploit their resources. Settlements became more complex too, with groups of small round houses surrounded by paddocks, fences and enclosures. There is relatively little settlement evidence from the Dover area though. A group of pits at Swingate are thought to relate to a nearby settlement (TR 34 SW 1031) (Parfitt, 2003) and evidence of possible prehistoric occupation dating to the neolithic or early bronze age has been found beneath Archcliffe Fort (TR 34 SW 1444) (CAT, 2001).

5.15 - The habit of burying the dead (or at least some of them) in barrows continued, although the form of the barrows changed from long barrows to round barrows – low mounds raised over a central burial and surrounded by one or more ditches. A possible neolithic or bronze age ring-ditch, presumably around a barrow, has been reported as being found during the rescue excavations in Dover town centre during the 1970s although there is little information available about this. Another barrow was discovered during the excavation of the Buckland Anglo-Saxon cemetery to the north-west of Dover from 1951 to 1953 (TR 34 SW 991) (Parfitt & Anderson, 2012). Generally, though, barrows were constructed on higher ground. For example, there are two pairs of bowl barrows at Winless Down, one of which contained a bronze age sherd (TR 24 SE 17). Although the construction of barrows is one of the most distinctive aspects of the bronze age, not all burials had barrows. A possible bronze age date has been ascribed to an inhumation burial found at Broadlees Bottom, immediately north of Dover Castle in 1939 (TR 34 SW 57) (Amos, 1939).

5.16 - Flint tools remained widely used in the bronze age. Almost all bronze age sites produce assemblages of struck flints. Some were no doubt produced and used on the sites where they were discovered, but it is likely that others have been washed down the hillslopes in colluvium. Pottery was more commonly used than in the neolithic period and has been found in greater quantities during excavations. For example, on the Buckland Estate excavation in 1996 over 100 bronze age sherds were found (TR 34 SW 466). Most dated to the late bronze age, but some were from the early and middle bronze age (CAT, 1996). Middle bronze age to iron age pottery sherds were also found at a site off Queen's Gardens and were believed to suggest a nearby occupation site (TR 34 SW 640) (CAT, 2001).

5.17 - In addition to the continuation of many neolithic practices, the bronze age also had its own innovations, perhaps the greatest of which, and the one that has given its name to the period, was the introduction of metal. Initially this was not bronze, however, but copper, which may have been mined in Britain as early as c 2500 BC. By c. 2150 BC metalworkers had learned to make bronze by mixing the copper with tin, which in Britain generally came from Devon and Cornwall. None of the raw

materials needed for copper or bronze working are to be found in south-east England. There is also relatively limited evidence of bronze casting in the region and it is likely that many of the bronze items discovered were imported. This is supported by the number of 'founders hoards' of bronze scrap items that have been found in east Kent. Several examples are known from Dover town including a founder's hoard of socketed axes, a sword and broken bronze implements found somewhere in Dover before the war (TR 34 SW 20) and a probable small hoard from Buckland (TR 34 SW 33) (Ashbee & Dunning , 1960). The closest hoard to Dover town centre was an unusual one – the Langdon Bay wreck hoard (TR 34 SW 88). This shipwreck was found in 1974 and included more than 350 bronze objects including tools, weapons, ornaments and scrap dating to 1200-1000 BC. It suggests that bronze scrap was being traded across the Channel by this time and that people in Dover had access to long-distance trade networks (Stevens & Philp, 1976). Although some materials had occasionally been traded over long distances in the neolithic period, the trade and exchange networks developed in the bronze age far surpassed them. Communities had access to exotic materials such as amber, jet, gold and copper much of which had to be obtained from far away (most amber came from the Baltic for example). Several examples of bronze age metalwork have been found in and around Dover. A fine gold torc was found at Castle Mount in 1878 and is now in the British Museum (TR 34 SW 27) and a gold earring or hair ornament was found somewhere in Dover town in 1853 (TR 34 SW 28). Weapons have also been uncovered including an early bronze age flanged axe (found at Buckland in 1856) (TR 34 SW 24) and a middle bronze age looped spearhead found at River (MKE101814).

Figure 5.5 – Gold Torc discovered near Dover, now in the British Museum – © The British Museum 1198062001

Figure 5.6 – The bronze age boat exhibition at Dover Museum

5.18 - The importance of water-borne trade is further confirmed by Dover's most famous bronze age discovery – the Dover bronze age boat (TR 34 SW 467). In use around 3600 years ago, it is thought to have been capable of cross-channel voyages as well as plying the coast of England. The boat consists of 6 oak timbers, lashed together with yew

wood. Moss was pushed into the joints as caulking. The two central planks were joined with wedges, a central rail and a series of cleats. The length of the excavated portion is 9.5 m and is c. 2.5 m wide although its complete extent is unknown as part is still buried. The boat which was preserved in the waterlogged and silted conditions of the former Dour Estuary is thought to have required as many as 18 people to paddle (Clark, 2004). It is the oldest surviving sea-going craft anywhere in the world and is now housed in an award-winning gallery about the bronze age in Dover Museum.

Iron age (Fig. 5.8)

5.19 - The iron age is so named because it was the period during which iron began to replace bronze as the main metal used (though it was used on a small scale in the bronze age, largely in areas close to sources of iron ore). At first, however, there was considerable continuity, and it was only late in the period that iron became most common. In addition to bronze and iron, flint tools continued to be used and objects were made of wood, bone and pottery. As the period progressed, the society and economy of Britain became more complex. In the late iron age, particularly in the south-east of England, the proximity of the Roman Empire increasingly affected social organisation, land-use, crafts, trade and industry. At the end of the period, the raids of Julius Caesar in 55 and 54 BC preceded the eventual Roman conquest of Britain beginning in AD 43.

5.20 – The main form of settlement in Britain throughout this period comprised small villages of a few round houses surrounded by paddocks and enclosures, but in addition to this a wider range of settlement types were also developed. During the later part of the iron age some settlements became more complex and wholly new forms emerged including hillforts – hilltop settlements defended by ditches and ramparts, and oppida – large proto-towns with a variety of economic and political functions. In the Dover area evidence of iron age settlement is fairly sparse compared with some other areas of east Kent such as Thanet and Canterbury. The large-scale rescue excavations of the 1970s and 1980s did identify evidence of iron age occupation which includes one or more iron age huts, multiple pits, post holes and a gully in the centre of the town (TR 34 SW 2776). This all suggests a settlement existed in the heart of what is now the town of Dover at some point in the iron age but unfortunately, due to the lack of detailed publication, little is known about this settlement. Elsewhere in the town, iron age evidence is ephemeral. The finds include two sherds from a possible mid to late iron age vessel which were found at Maison Dieu Road (TR 34 SW 1784) (SWAT 2011), two sherds of iron age pottery found during excavation at the Grand Shaft Barracks (TR 34 SW 1982) (CAT, 2018) and a number of coarse iron age pottery sherds found in Beresford Road (TR 24 SE 32). Iron age features are similarly sparse. They include the terraces cut into the hillside at Buckland which appear to have been used from the Neolithic period to the Roman period (Parfitt & Anderson, 2012). The evidence of iron age activity there comprised a large number of struck flints and pottery sherds (TR 34 SW 992). Alongside this,

two possible parallel ditches at Bridge Street, Dover have been discovered (TR 34 SW 1808) (CAT, 2010) and a possible late iron age ditch at Crabble Paper Mill (TR 24 SE 190) (CAT, 2002).

5.21 - East of the town, it has been suggested that an iron age hillfort or settlement may have existed beneath what is now Dover Castle. There was certainly iron age activity on the hill. Excavation of the earthworks south of the church of St Mary in Castro in 1962 found several pits, a gully and floor surfaces associated with 1st century BC pottery (TR 34 SW 65). The identification of the site as a possible hillfort rests on the dominating position that the hill has over the haven in the gap in the cliffs at Dover. The earliest earthworks surrounding the castle are also of an unusual morphology and it has been suggested that this is more typical of an iron age hillfort than medieval defences (Colvin, 1959).

5.22 - The most extensive area of iron age settlement known from the Dover area is not in the town itself but from outside it around Whitfield. On Menzies Road a flint filled pit, a posthole and two ditches were found during an evaluation, with prehistoric and Roman pottery fragments located in one ditch (TR 34 SW 619 & 915). It is thought that the features represent the edge of a small late iron age or early Roman settlement, possibly located further to the east (CAT, 1999). The site is one of a number of excavations that have produced iron age evidence in the Whitfield area; iron age ditches were found on Whitfield Recreation Ground in the 1970s (TR 34 NW 161) (Crellin, 1974) and iron age sherds have been found at the Whitfield Roundabout (TR 34 SW 608) (CAT, 1994). Both early and late iron age features were also found at the Whitecliffs Business Park (TR 34 SW 615 & TR 34 SW 481) (CAT, 1998) and early to middle iron age pottery was found during works associated with the A256 (TR 34 SW 675) (CAT, 1994). The most significant iron age evidence to have come from this area was found slightly to the north at Church Whitfield. Two separate iron age sites have been uncovered here, one dating to the middle iron age and the other to the middle-late iron age. The first consisted of pits, ditches and postholes and a single four-post structure with finds including pottery, animal bones, flint and daub. A short distance away, during evaluation work for the A256, a number of features were recorded east of the church at Church Whitfield. A middle-late iron age enclosure with a small number of internal features were found. A possible ritual

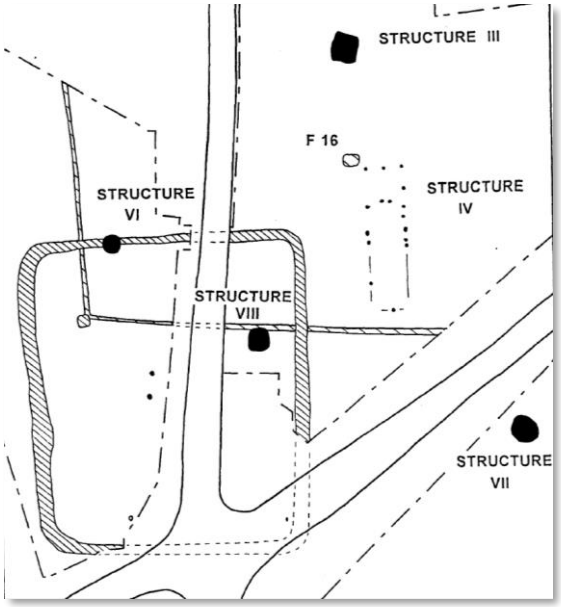

Figure 5.7 – plan of some of the iron age features discovered at Church Whitfield Image courtesy of CAT

deposit, consisting of a human skull, was found in the ditch of the enclosure and also an inhumation burial that could have been part of a larger cemetery (now lost). The site dates to c.150 to 50 BC (TR 34 NW 222) (CAT, 1996). Elsewhere, outside but close to the town, at Anzio Crescent, Guston a small iron age site consisting of struck and burnt flints was found in 2003 (TR 34 SW 980) (DAG, 2003).

5.23 - During the latter half of the bronze age the use of burial monuments such as barrows ceased. For most of the iron age, evidence of burial practices is sparse, and it is assumed that whatever means were used left few traces, e.g. cremation followed by scattering of the ashes. In some areas, including east Kent, burial could sometimes take the form of inhumation in individual graves or urned cremations. In both cases, the human remains would be accompanied by grave goods and the burials could sometimes be placed within larger cemeteries. A probable iron age cremation was found during the construction of Dover Priory Station in 1861 (TR 34 SW 1853).

5.24 - The society and economy of Britain became more complex during the late iron age. Coinage was introduced from the continent in the middle of the 2nd century BC. Shortly thereafter, coins also began to be struck domestically for the first time, largely based on earlier Mediterranean types. Kent played an extremely important role in this process both producing its own coinage and importing large numbers of continental coins from the 3rd century BC onwards. Although east Kent has a large concentration of iron age coins, they are not especially concentrated in and around Dover. This is partly because coins are rarely found in modern towns but it is probably also indicative of the dispersed settlement pattern in Kent. In addition, many of the coin records that do exist were gathered over a long period of time and the original locations of the coins are often inexact. Around 60 iron age coins are recorded from the Dover area though the records are certainly partial. The late iron age also saw much more extensive contacts with continental Europe, reflected not just in the development and importation of coinage but also in the range of imported goods used. Wine, fine tableware and bronze vessels were all imported from Europe, and corn, cattle, hides and slaves were sent to the continent in return. None of the iron age discoveries in Dover are evidence of imports though, which perhaps underlines the relatively small scale of iron age settlement in the town. The partial nature of the publication of the prehistoric discoveries made during the rescue excavations of the 1970s and 1980s, prevent firm conclusions about Dover's later prehistory from being drawn.

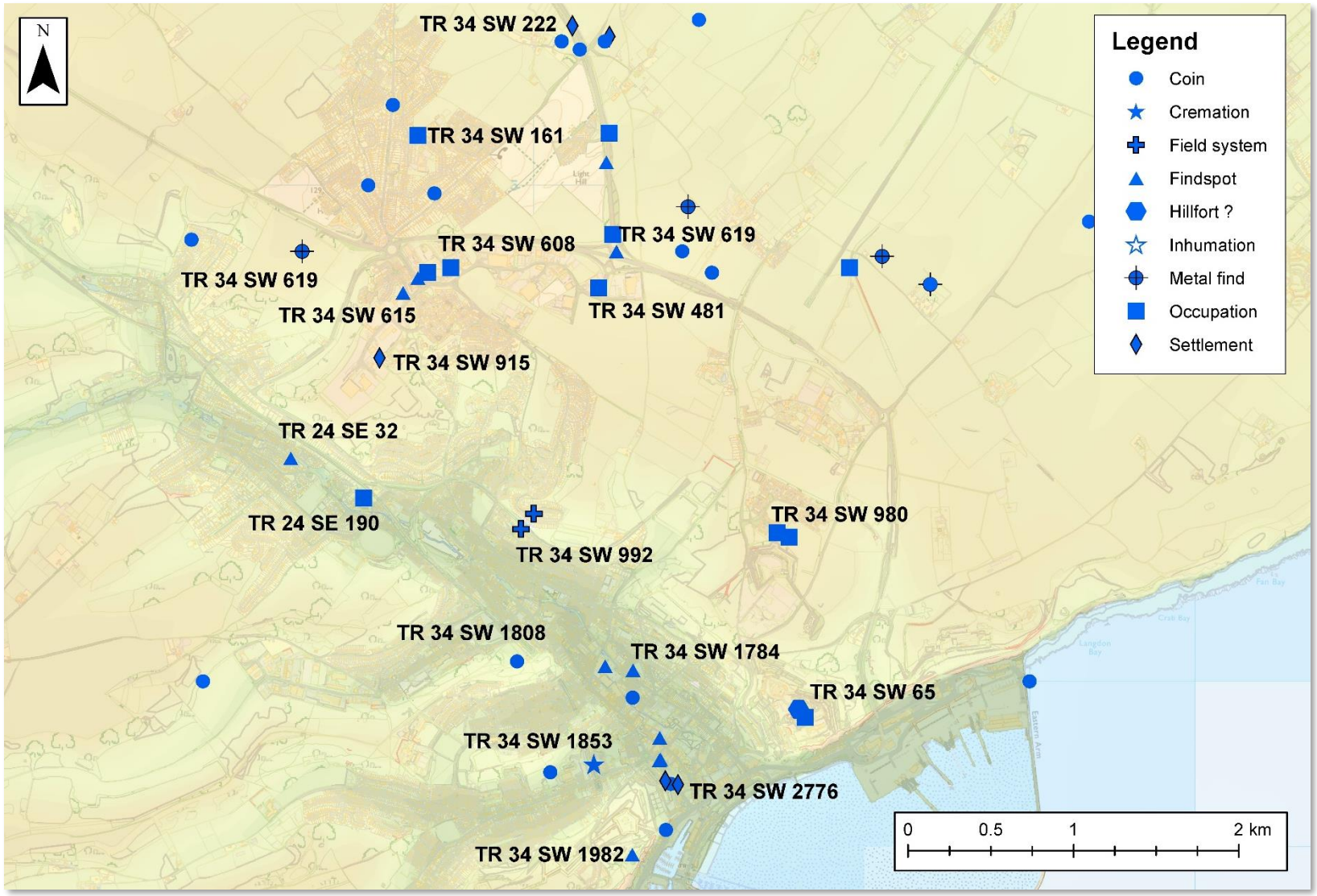

Figure 5.8 - Iron age Dover

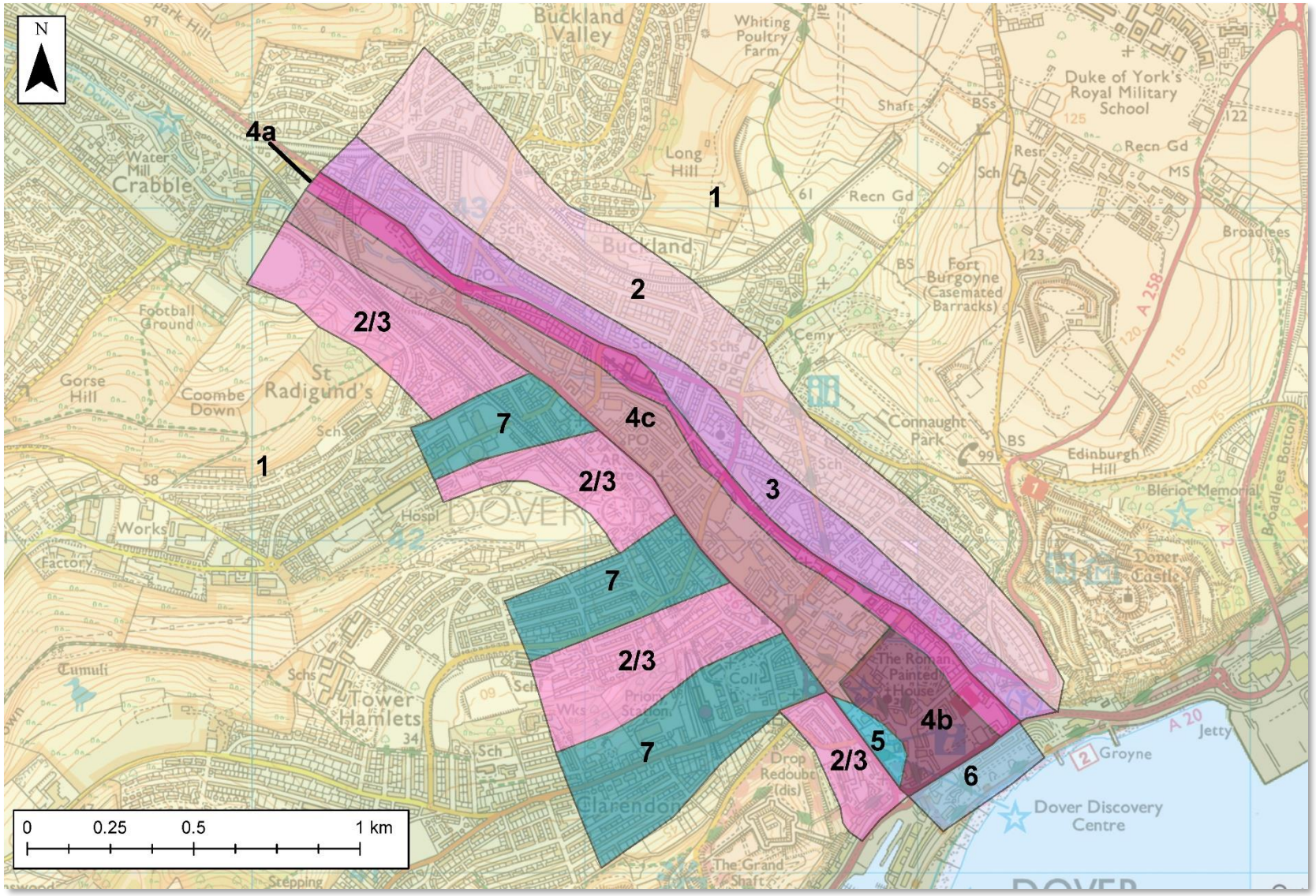

Figure 5.9 - topographic model for late prehistoric Dover

A topographic model for late prehistoric Dover (Fig. 5.9)

5.25 - Based on the known geology of the Dover area, and the archaeological discoveries described above, it is possible to propose a topographical model of the Dour valley, characterise the sediments in the area of the model and make high level predictions about archaeological potential. Note that the model is schematic – differences between zones should not be relied upon for locational detail. The model divides the Dour valley into 6 broad zones with a number of sub-zones:

5.26 - Zone 1 comprises the high downland plateau through which the river Dour cuts in a south-easterly direction towards the gap in the cliffs at Dover. There is also a gentle dip to the north-east. The plateau is chalk bedrock capped with thin soils. There are frequent large deposits of Pleistocene clay-with-flints (c. 258,000 to 11,700 BP) generally running in striations north-east to south-west. There are also significant outcrops of head deposits, particularly behind the edges of the valley to east and west, and patches of late Pleistocene loess may also exist here (c. 126,000 to 11,700 BP). The zone has a mixed archaeological potential. For all later prehistoric periods there is potential for surface flint scatters but also for more substantial sites including bronze age round barrows and middle to late iron age settlements.

5.27 - Zone 2 runs along the steep upper valley sides and higher-level coombes on the east side of the Dour valley. It is characterised by thin soils above chalk and localised late Pleistocene head deposits consisting of gravels and clay/silts. The archaeological potential of the area focuses on cultivation terraces and lynchets, possibly including hut platforms, and surface lithic scatters and residual pottery sherds, often derived from Zone 1.

5.28 - Zone 3 is the gentle valley slopes that lie between the steeper slopes and the valley floor consist primarily of head deposits and colluvium. The head deposits consist of gravels and clay-silt of both Pleistocene and Holocene age (c. 126,000 years ago to the present date). The zone also contains interbedded palaeosols of late Pleistocene and Holocene date. Zone 3 areas exist on both sides of the Dour valley, as a long zone running parallel with the river on the eastern side of the valley, and as a series of south-west to north-east zones on the west side of the valley. These western zones share characteristics with Zone 2, however, and so are marked as mixed zones on the map. The gentleness of the slope in Zone 3 areas made these areas attractive to settlement from the late prehistoric period onwards and there is potential for further discoveries of this type. Proximity to settlements also made these areas suitable for prehistoric and Roman burials, and for routeways leading from the settled area to the uplands and along the valley to the north. There is also potential for the recovery of artefactual evidence that has rolled down the slopes from above.

5.29 - Zone 4 is the floor of the Dour valley, extending from Townwall Street to the outer limits of the model just south of Crabble Mill. Although it has an internal consistency, within the broader zone there are slight differences in terms of character and archaeological potential in the late prehistoric periods and so the Zone has been sub-divided into three sub-Zones.

5.30 - Zone 4a comprises the outer edge of the valley floor on the eastern side of the valley, at the point where it meets the gentle lower valley sides of Zone 3. Geologically it is characterised by spreads of head deposits (including colluvium) consisting of gravels and clay-silts of both Pleistocene and Holocene age, by alluvium including peat and clay-silts, and by tufa. The archaeological potential of the Zone relates primarily to its waterfront usage. There have been few archaeological discoveries in this Zone but given the location of the Zone it is possible that riverside timber revetments and watercraft might be found as well as remains associated with the exploitation of the river.

5.31 - Zone 4b represents the flat valley floor and river flood plain in central Dover. Geologically, it is characterised by alluvium (including peats, tufa and clay-silt deposits) laid down from c. 1,700 to the present day, middle to late Holocene marine gravels (c. 8236 BP to today) and sands overlying late Pleistocene river gravels. For the later prehistoric period there is almost no known evidence from this Zone, but there is potential within the area for the discovery of remains related to the former river estuary in the form of timber revetments and watercraft. This Zone includes the site of the discovery of the Dover bronze age boat,

5.32 - Zone 4c covers the upstream valley floor and river floodplain. Deposits in the Zone include Holocene alluvium (including peats, tufa and clay-silts), which are generally thin and discontinuous. These overlie coarse and angular late Pleistocene river gravels. As with the other zone 4 sub-zones, there is potential for the discovery of remains related to the exploitation of the Dour including timber revetments. A possible later bronze age clay dump and two iron age ditches or gullies have been found in this Zone as well as several residual late prehistoric sherds and struck flints.

5.33 - Zone 5 represents the valley side in the town centre area. It straddles the heart of the Roman town. Geologically it is characterised by spreads of head deposits (including colluvium) consisting of gravels and clay-silts of Pleistocene and Holocene age (c. 126,000 years ago to the present), early Holocene tufa (including possible cemented tufa) laid down from c. 11,700 to c. 8,236 BP) to and buried soils of Pleistocene/Holocene date. There is extensive late prehistoric archaeological potential including settlement sites, routeways, burials and reworked artefacts derived from upslope. Evidence so far uncovered from the area includes a mesolithic or neolithic occupation layer found on the surface of the former riverbank; a number of possible neolithic discoveries made during the 1970s and 1980s including pits, struck flint assemblages, a possible late neolithic or Early bronze age ring-ditch and

finds of bronze age flints and pottery sherds. Iron age huts and storage pits were also found in this area during the Kent Archaeological Rescue Unit excavations.

5.34 - Zone 6 comprises an area of fairly recent beach frontage consisting of high energy storm beach gravels and sands (c. 8,236 BP to the present day), late Pleistocene and Holocene alluvium including peat, and clay-silts and early Holocene tufa (c. 11,700 to 8,236 BP). Although no later prehistoric discoveries have been made in this area, it may contain later prehistoric artefacts probably derived from upslope.

5.35 - Zone 7 covers three areas, each representing large dry valleys to the west of Dover and running from the uplands down to the river Dour. Geologically, these Zones are characterised by spreads of head deposits (including colluvium) consisting of gravels and clay-silts of Pleistocene and Holocene age (thin sequences) and by interbedded palaeosols of Late Pleistocene and Holocene age. In the later prehistoric period, there is potential for reworked prehistoric artefacts, mainly derived from upslope, or perhaps for burial evidence from the lower slopes. The only known discoveries in Zone 7 are a mesolithic flint artefact and a possible iron age or Roman cemetery in the vicinity of Dover Priory Station.

Further Reading

5.36 – Development-led archaeological investigation has resulted in the discovery of many of the late prehistoric finds in and around Dover. Information about these is generally in the form of unpublished reports that are held in a digital format by the original excavators and by Kent County Council. Information about the discoveries has been included in the Kent Historic Environment Record and is available online:

- https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

The Portable Antiquities Scheme's database is also a useful tool. This is available to search online:

- https://finds.org.uk/database

For an overview of prehistoric Kent :

- In J. Williams (Ed.) (2007), *The archaeology of Kent to AD 800.* Boydell Press.

To understand the role of Kent in the wider context of south-east England:

- https://www.kent.gov.uk/leisure-and-community/history-and-heritage/south-east-research-framework

Several monographs about archaeological discoveries in Dover are also available.

The publications that describe the discovery and excavation of the bronze age boat are very useful sources for the study of Dover and the wider landscape in the later prehistoric period. A discussion of the boat in its context was compiled on the ten-year anniversary of its discovery.

- Clark, P. (Ed.). (2004). *The Dover Bronze Age Boat.* Dover: English Heritage
- Clark, P. (Ed.). (2004). *The Dover Bronze Age Boat in context: Society and Water Transpot in Prehistoric Europe .* Oxbow Books .

Many of the later prehistoric discoveries that were made in the town centre during the 1970s and 1980s remain unpublished. Some publications do discuss the results of smaller archaeological investigations in the town. Those used within this text include:

- Colvin, H. M. (1959). An Iron Age Hillfort at Dover? *Antiquity*, 125-127.
- Parfitt, K. (2003). Kent sites. *Canterbury's Archaeology Annual Report 2002-2003*, pp. 30 - 40.
- Parfitt, K. (1996). Fieldwork III Kent Sites 22 - Unitarian church, York Street Dover . *Canterbury's Archaeology 1995–1996*, pp. 35-36.
- Rahtz, P. A. (1958). Dover: Stembrook and St Martin-le-Grand . *Archaeologica Cantiana* , 111-137.

6 - ROMAN (AD 43 TO C. AD 410)

Introduction and Summary of Potential

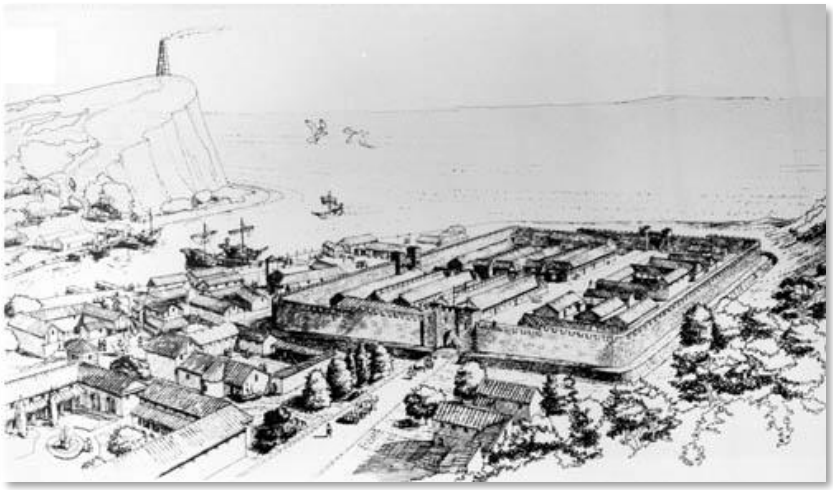

Figure 6.1: Roman Dover. Image courtesy of Dover Museum (d11087)

6.1 - Dover contains evidence of Roman occupation which is varied and extensive. It includes numerous features of both national and international significance, some of which are among the best examples of their type in Britain, and are exceptionally well preserved. For example, the Roman lighthouse on the eastern headland is the tallest Roman structure in Britain and the painted wall plaster within the *mansio* (known as the Painted House) is among the best preserved and most elaborate in north-western Europe. The town contains the remains of three Roman forts (the earliest of which does not appear to have been completed). The excavated remains include sections of the fort walls, ditches, gateways, and bastions, alongside many internal structures such as barracks and a bath house, parts of which have been preserved *in-situ*. Evidence for an extra-mural settlement and burials has also been uncovered surrounding the forts as well as features associated with the use of the river Dour estuary as a harbour. The information gathered from archaeological excavations, particularly those from the 1970s and 1980s, has added a great deal to our understanding of many aspects of Roman life, both civil and military. The evidence uncovered highlights Dover's important role in providing the province of Britannia with a connection to the rest of the empire and some may also be interwoven with historical events. Only limited areas of Dover's town centre have been subject to scientific archaeological investigation however, and it is extremely likely that more information, particularly regarding the later Roman occupation of the town, remains to be uncovered.

6.2 - After Julius Caesar's expeditions to Britain in 55 and 54 BC, the country finally became part of the Roman empire following the invasion in AD 43, driven by the political ambitions of the Emperor Claudius. Prior to the formal incorporation of Britain as the north-western outpost of the empire, it had already enjoyed strong trade links with the continent. This is clearly represented in the material culture of the late pre-Roman iron age, particularly in southern Britain, which shows a clear Roman cultural and economic influence. Strabo, a Greek philosopher and geographer who lived at the time of the Caesarian expeditions, suggested in his work

Geographica that Britain paid more in customs and duties than could be raised by taxation if the island were conquered.

6.3 - Kent played a key role in the invasion and subsequent integration of the province into the empire. It is likely (though not definitively confirmed) that the initial landing spot was at Richborough, 19km north of Dover, where a military base was established. In around AD 80 to 90, a 25m high marble-clad arch was erected at Richborough, overlooking the harbour, a statement of Rome's power and an imposing sight for all new arrivals. The first of what was to become many Roman roads running through Britain was established at Richborough. This road, now known as Watling Street, ran through Canterbury and Rochester on its way towards London. It became an important link in the Roman trade network, with Canterbury developing as a node from which various branch roads eventually linked it to Reculver (*Regulbium*), Richborough (*Portus Ritupis*), Dover (*Portus Dubris*) and Lympne (*Portus Lemanis*). The roads in Kent were of particular importance in this network, with the Kentish coast providing the shortest crossing point to the continent. The strategic position of the county and the importance of its harbour facilities in sustaining military and other supplies, resulted in Kent, unlike much of southern Britain, retaining a military presence after the initial invasion. This has led to Kent having one of the largest concentrations of fortifications in the country apart from Hadrian's Wall.

6.4 - Dover's importance within this military and trade network is clear. It is located at the only break in approximately 20km of high cliffs which also had a useful tidal estuary. The proximity of Roman ports along the coast of France such as that at Boulogne, where a Roman settlement known as *Gesoriacum* was located also highlights the importance of Roman Dover. At the time of the Claudian invasion *Gesoriacum* formed the major port connecting the rest of the empire to Britain and was the chief base of the *Classis Britannica* fleet - a provincial fleet of the navy of ancient Rome.

Dover as a base for the Roman 'Classis Britannica' fleet (Fig.6.6 Area 1)

6.5 - The presence of a Roman base at Dover was known long before any archaeological excavations had been undertaken at the town. Ptolemy, a 2nd century geographer and mathematician, noted the presence of a 'new port' somewhere on the coast of south-east England. Though the precise location of this new port is not specified, this reference may well be referring to Dover which could suggest the existence of a key harbour complex here. Dover also appears on the Peutinger Table which is an illustrated map dating to the 13th-century (but possibly copied from a Roman original), showing the layout of the road network of the Roman Empire. The Antonine Itinerary, which has traditionally been ascribed to the patronage of the 2nd-century Antoninus Pius, like the Peutinger Table, describes the roads of the Roman Empire along with a register of the stations and distances along various roads. This

important document also notes the presence of a settlement and port at Dover, then named '*Portus Dubris'*.

6.6 - Very little was known about this supposed Roman harbour and settlement until the latter half of the 20th century. In the 200 years before then, finds of Roman features, masonry and occasional parts of buildings had been recovered and recorded. These discoveries were frequently associated with tiles stamped 'CLBR' which strongly implied that the Roman fleet (*Classis Britannica*) had a base at Dover. The *Classis Britannica* was a provincial fleet of the navy of ancient Rome. Its purpose was to control the English Channel and the waters around the Roman province of Britannia. This largely involved the movement of personnel and keeping open the communication routes across the Channel. In 1929, archaeologists A.J. Amos and Mortimer Wheeler brought together information from some of these Roman finds made in Dover to produce a map with the projected line of the Roman fortifications (Amos & Wheeler, 1929). An unfortunate plotting error in one of the Shore Fort wall positions skewed its outline in the plan that they produced thus hampering later targeted investigations. But, despite this, their work was an early attempt to understand the form and layout of the Roman fortifications, and though their evidence only consisted of small sections of walling uncovered during small scale investigations, their work was an important first step towards understanding the Roman occupation in the town.

6.7 - The first large-scale and scientific excavation to produce positive evidence of the fleet's presence in Dover, which had been previously hinted at by the discovery of *Classis Britannica* stamped tiles in the town, was undertaken in the 1970s and 1980s by the Kent Archaeological Rescue Unit (Philp, 1981). An extensive programme of rescue archaeology ahead of large-scale development was carried out in an area immediately west of Market Square and largely beneath the modern route of York Street. These excavations revealed a large multi-phased fort and established that the *Classis Britannica* adopted a spit of land beneath the western headland at Dover as its major base on the British coast for much of the 2nd century (Figure 6.6 area 1).

Figure 6.2: Roman walling recovered during KARU excavations in Dover. Image Courtesy of Dover Museum (d17046)

6.8 - The dates we have for the various phases of construction and activity at this fort are not completely secure but the initial interpretation of the excavation evidence suggested that the earliest date for the establishment of a fort here was c. AD 116-117 (on the basis of coin and other evidence). This first fort appears to have been short lived and remained unfinished. Only the foundations of the fort wall, a few barrack buildings and a possible external store building had been laid out. In about AD 130 another fort was constructed at the same site (TR 34 SW 2). The excavations revealed that this fort was large, occupying approximately 9000m^2 with a stone defensive wall, a ditch on three sides, at least three large gatehouses and a metalled forecourt leading to the waterfront. Twelve large buildings dating to this period of construction were uncovered within the interior of the fort, most of which were barrack blocks, and a further two smaller buildings interpreted as granaries were also recorded. Not all the interior of the fort was excavated, and it is likely that other buildings including a possible *praetorium* (accommodation for the commanding officer) and *principia* (the administrative centre of the military unit), existed on its western side. The evidence suggests that occupation lasted 20 to 25 years after the construction work beginning in around AD 130, giving an abandonment date of around AD 155. After a period of abandonment another phase of construction dating to around AD 165 was revealed by the excavations. During this phase the barracks were rebuilt with fewer and larger rooms; drains and roads were re-laid; the external ditch re-cut, at least three (and perhaps all) of the long buildings were extended by 2m to 4m and a latrine built in the south-east corner of the fort. The occupation associated with this phase of construction lasted another 15 to 20 years and it seems that the fort was again abandoned in around AD 180. The *Classis Britannica* returned for its final occupation in about AD 190 to 200. During this period of occupation, the north gatehouse and barracks were re-built, and the internal roads and drains re-laid. At least one new building, probably a barracks, was inserted close to the west wall which may imply a marginally increased garrison. The evidence suggests that the fort was ultimately abandoned about AD 208. The wealth of evidence gathered from these excavations has clearly added a great deal to our understanding of the *Classis Britannica* and of the early Roman occupation of Dover. There have, however, been some amendments suggested for the dates of these features in the years since the excavations were completed. The broadening of our knowledge of Roman Britain in the decades since the initial excavation of the Roman forts in Dover has also led to the suggestion that the excavated evidence and interpretation of the fort's role warrants reappraisal.

6.9 - The dating evidence for these periods of construction and abandonment is largely from the demolition, levelling and building work discovered within the fort, all of which produced dispersed coin finds and datable pottery. If correct, these dates can be linked with important military campaigns in which the fleet may have had a role. The abandonment of the initial partial phase of construction and the return and completion of the fort in the AD 130s shown in the excavated evidence is supported by three inscriptions which indicate that a large section of the fleet was assisting with

the construction of Hadrian's Wall during the period AD 122 to 128. The second abandonment of the fort around AD 155 coincides with a major northern revolt that lead to the evacuation of much of lowland Scotland and the reconstruction of many of the forts along Hadrian's Wall. The campaigns following this revolt appear to have lasted until AD 163 which again fits nicely with the evidence at Dover that suggests the fleet's return to the fort in about AD 165. The date of about AD 180 for the end of this phase of occupation may also be linked to a major revolt which resulted in the campaigns led by Ulpius Marcellus in AD 182-183. It is probable that the fleet was back in the Channel by about AD 194 to 196 to participate with the preparations by the usurper Albinus for his bid for the imperial throne, again fitting the evidence discovered in Dover for the final phase of occupation which lasted until approximately AD 210. Significantly, in AD 208 to 210, Septimius Severus began his extensive major rebuilding programme at the coastal forts in the north of Britain at Cramond and South Shields. It is likely that the fleet was required for logistical support in these campaigns. It is clear therefore, that the evidence discovered at Dover may be placed within a wider context of important events occurring across Britain and the western empire.

The Roman harbour (Fig. 6.6 Area 2)

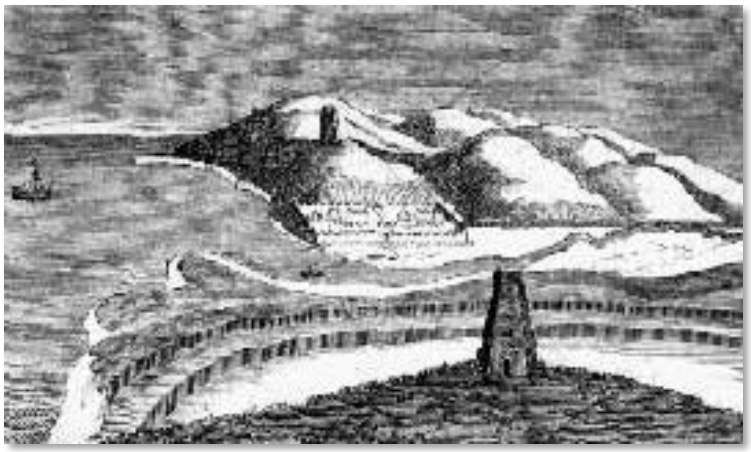

Figure 6.3 - An impression of the Roman port of Dover) originally drawn by the 18th century antiquarian William Stukeley. Image courtesy of Dover Museum (d05960)

6.10 - As mentioned above, the reason for the establishment of the *Classis Britannica* fort in Dover was due to several useful geographical and topographical features. At the time of its initial construction, the river Dour would have been a much wider tidal estuary and could have been used as a safe haven for ships (Figure 6.6 Area 2). It is likely that the estuary would have occupied much of the St James area of the town, at least reaching Russell Street to the west and Bench/King Street to the east. Evidence for estuarine deposits dating to the Roman period have been found as far west as Market Place. For example, a borehole survey undertaken on the southern side of the square recorded silts that represent low energy water-lain deposits from the silting up of the Roman harbour basin (TR 34 SW 1528)(Parfitt & Bates, 2009).

6.11 - Evidence that shows how the Romans adapted and constructed features to aid the use of the estuary as a safe harbour has been discovered in several locations. During the excavation of a gasometer pit in 1855-6, approximately 120m east of Market Square, a large timber structure was found at a depth of 6m from the surface (TR 34 SW 2782). This has been interpreted as part of a possible Roman breakwater and consisted of a framework of very large oak timbers (Collingwood, 1924). Further evidence was obtained in 1955 to 1956, during excavations undertaken by the Ministry of Works off Castle Street where two timber and chalk structures were located, 15.2m apart (TR 34 SW 19). One consisted of a line of timber piles interpreted as a quay. These stood to a maximum height of 2m, each 1.2m apart on a north-south axis. The other consisted of a single plank faced structure, holding in place a chalk platform against the steeply sloping natural bank of the river Dour. This chalk platform appears to have been surmounted by timber staging and planking and has been interpreted as a jetty. A layer of Roman debris to the east of these features contained 2nd and 3rd century sherds of pottery, contemporary with the evidence gathered from the *Classis Britannica* fort (Wright, 1956 and Rahtz, 1958). During the excavations which revealed the bronze age boat along Townwall Street in the early 1990s, a short section of another large timber structure was also recorded (TR 34 SW 692). The remains comprised two horizontal side timbers aligned roughly east-west which have been interpreted as having originally formed part of a massive timber box framed harbour wall of typical Roman construction. Tree-ring analysis of timbers recovered during an excavation in 1992 at the site of the old Roman waterfront gave only limited results, indicating a *terminus post quem* of AD 28 (Clark, 2004).

The Pharos

6.12 - Perhaps some of the most striking evidence for the use of the tidal estuary as a Roman harbour comes from the high ground flanking either side of Dover where two lighthouses were constructed. The precise date of these structures is not known, it has been suggested that they are contemporary with the earliest Roman activity in Dover and date to the late 1st century AD, but a more recent appraisal suggests a date of AD 117-140 (Booth, 2007). It is also, however, possible that these two lighthouses were constructed at slightly different times reflecting slight changes in the harbour and its mouth as a result of silting and longshore drift (discussed further below). The

Figure 6.4 - Eastern Pharos within the walls of Dover Castle

eastern lighthouse (TR 34 SW 739) remains substantially intact and is situated within the walls of Dover Castle. It consists of a tower approximately 12m in height constructed of flint rubble, with tile bonding courses and a tufa ashlar facing. The original height of the tower is not known but it has been suggested that this octagonal tower may have been as high as 24m when constructed, based on comparisons with another located in Boulogne. This lighthouse in Boulogne however, unlike the examples in Dover, is not positioned on top of a cliff and needed to be taller to be seen. It may be possible therefore, that the eastern lighthouse at Dover is near its original full height. The western lighthouse (TR 34 SW 16), was built on the hill that today constitutes the Western Heights but this structure has now been largely lost. It is reported to have stood until the 17th century, but gradually it fell to pieces until the construction of the Drop Redoubt in the 19th century obscured most of what survived. In 1861, during the construction of new barracks within the Redoubt, other portions of the Roman structure were uncovered comprising a solid platform about 4m in width made of flint and ragstone with a bonding course of tile and resting on a flint foundation. These two lighthouses would have combined with the third at Boulogne, the Tour d'Ordre, to guide ships across the Channel.

Extra-mural settlement (Fig. 6.6 Area 3)

6.13 - The forts of Roman Britain were commonly accompanied by a '*vicus*' or extra-mural settlement where soldiers' families, merchants and others dependent on the military would have lived. This type of settlement has been discovered at sites across the northern frontier of Roman Britain including for example, Vindolanda, South Shields and Housesteads as well as several examples in Wales (at Gelligaer, Neath and Usk). Overall the number of these extra mural settlements being recognised across Britain continues to grow, generally as a result of geophysical survey. Similar evidence exists in Dover: several buildings identified during the town centre excavations appear to have been contemporary with the fort but were situated outside of its walls (Figure 6.6 Area 3). Little is known about this extra-mural settlement but the fact that the buildings uncovered all appear to be high status perhaps suggests a function other than just acting as a site where those dependent on the military would have lived. The first structure was discovered in 1778 by Mr Lyons beneath St Mary's Church off Cannon Street, approximately 100m north-east of the northern *Classis Britannica* fort wall (TR 34 SW 1553). The presence of five walls, between 25cm and 90cm thick, was noted, defining four rooms with a passage between two of them (Lyon, 1779). Later excavations carried out in 1994 within the grounds of the churchyard revealed further evidence of this Roman structure (Philp, 2014). Two internal walls of a large building and parts of at least three rooms were revealed. When first discovered these remains were interpreted as being part of a Roman bath house complex but this interpretation has since been dismissed. The remains more likely represent part of a high status extra-mural private or public building.

Figure 6.5 - The Roman Painted House in Dover. Image courtesy of Dover Museum (d08396)

6.14 - Two closely spaced buildings now known as the 'Painted House' (TR 34 SW 85) and 'East Building' (TR 34 SW 1707) were uncovered on the northern side of the fort by the Kent Archaeological Rescue Unit between 1970 and 1976 (Philp, 1989 and Philp, 2012). The excavations revealed a complex of at least six rooms and a passage dating to around AD 200 which had been built over the remains of an earlier Roman building. Some of the walling was remarkably well-preserved with the stone walls generally surviving between 1.2m and 1.8m high. In the best-preserved rooms these walls had been decorated with a green dado and rectangular panelling which remained *in-situ* and are now among the best-preserved examples of their type north of the Alps. A hypocaust system was discovered beneath four out of the six rooms, each fed by an external furnace. These two structures are clearly high status and it is likely that the discovered remains were part of a larger complex that possibly extended further to the east. They have both been interpreted as a part of a possible *mansio* which would have provided accommodation and stabling for travellers. The remarkable preservation of this important Roman building has led to the site becoming a Scheduled Monument and some of the remains are open to the public in a small museum.

6.15 - Immediately south of this *mansio,* again on the northern side of the *Classis Britannica* fort (approximately 25m from the north wall of the fort), is another large building discovered by the Kent Archaeological Rescue Unit (TR 34 SW 86) (Philp, 2012). The excavations uncovered the remains of a large bath house measuring 20m by 8m and consisting of a series of six heated rooms with the walls surviving to an average height of 2m, rising to 4m at one corner. It had *opus signinum* floors, a channelled hypocaust with the furnace at the western end and a large, metalled courtyard. The bath house appears to have had a long use and numerous phases of development are represented in the surviving evidence. An original construction date of c. AD 155-160 has been suggested and coins recovered from the occupation levels of the bath house suggest that it remained in use throughout the 3rd century AD until the last quarter of the 4th century AD

6.16 - Glimpses of many other structures within this extra-mural settlement have been seen at various times throughout the 19th and 20th centuries. These include the principal part of two Roman rooms with painted wall plaster that were discovered during an excavation to the west of Market Square, approximately 25m to the north-

east of the *Classis Britannica* fort (TR 34 SW 1260). These rooms were dated by Samian ware to AD 130 to 140 though there is also evidence of the reorganising and rebuilding of these rooms throughout the later 2nd and 3rd centuries AD (Threipland, 1957). Immediately north-east of this building was another possible Roman structure consisting of three chalk block walls set in clay (TR 34 SW 1255) (Rahtz, 1958). These were all associated with sherds of Roman pottery including Samian ware, and appear to date to the later 1st century AD. A third building, this time located on the eastern side of the fort, was uncovered in 1982. The building was on an east-west axis with a neat central rectangular room measuring 5m by 1.35m which was flanked on the east and west sides by two further rooms, the full extent of which lay outside the excavated area (TR 34 SW 1701). The whole structure was sealed by a layer of clay which represents the collapse of the northern, eastern and western walls; significantly there were traces of painted wall plaster on these walls, suggesting a domestic use of this building (Philp, 2012). On the southern side of the fort another building, located between Adrian Street and Snargate Street, has been recorded (TR 34 SW 1158). Plaster faced tufa and chalk block walls and *opus siginum* floors representing at least one room and an associated narrow passage were uncovered. These were associated with pottery dating from the late 1st to early 2nd century AD (Threipland, 1957). Alongside these buildings, Roman walling has been identified on Church Street (TR 34 SW 45) (Amos & Wheeler, 1929), Biggin Street (TR 34 SW 68) (Rigold, 1969), near Queen Street (TR 34 SW 1191) (Wilkinson, 1995) and beneath buildings on both the northern (TR 34 SW 1892) (Mothersole, 1924) and southern (TR 34 SW 1410) sides of Market Square (Amos & Wheeler, 1929), all of which may possibly represent further buildings within the settlement. From this evidence it is certain that this large civil settlement containing several high-status buildings occupied an area on the northern, western and southern sides of the fort.

Roman roads and peripheral occupation (Fig 6.6 Area 4)

6.17 - It has been suggested that much of this settlement may have surrounded roads leading away from the fort which connected with the wider road network in Kent. Despite the fact that two gates and their associated gate houses have been identified within the walls of the *Classis Britannica* fort (TR 34 SW 1615 northern and TR 34 SW 1599 eastern), no such roads have yet been discovered in Dover. This does not mean that they did not exist however, it is possible that the forecourt identified outside the eastern gate (TR 34 SW 1603) may have connected with roads running through the settlement (Philp, 1989). During excavations for a lift shaft at 34 Biggin Street, 6 layers of pebble metalling were uncovered in association with a sherd of Samian ware pottery (TR 34 SW 2783). It may be reasonable to suggest that this metalling represents part of the Roman road running north from the fort though this has not been confirmed and only a small area of the metalling was recorded. Possible secondary evidence for the presence of a road running north from the fort includes numerous sporadic findspots and several burials that have been located on the western side of the river Dour. These finds may suggest small-

scale activity and land use running roughly parallel to the modern course of High Street and London Road (Figure 6.6 Area 4). Cremation burials have been located on Biggin Street (TR 34 SW 1840) (OAU, 1994), north of Dover College (TR 34 SW 40)(Payne, 1889) and at the junction between High Street, London Road and Bridge Street (TR 34 SW 9) (Poynter, 1864). The location of these cremations would fit well within the Roman laws regarding burials – that they be situated outside of the main area of development. They also fit with the well-established tradition of locating burials and cemeteries alongside routeways.

6.18 - If it is indeed the case that a Roman road running north from the fort was located roughly parallel to the river Dour, it is likely that it crossed the river somewhere between Bridge Street and Buckland, and then followed the modern route of the A256 and connected with the A2 at Lydden Hill. The A2 follows the line of Roman Watling Street (TQ 86 SW 132) and would have provided Dover with a link to both Canterbury and London. This north-western route out of Dover may have connected with further suggested Roman routeways. A possible example is located along the line of Folkestone Road, which would have provided a route westward out of Dover and connected north Kent and Dover via Lympne (TR 04 SE 120). Another may have followed the course of modern Bridge Street which ran eastward out of the town towards Richborough and which is visible as a cropmark in several locations (TR 35 SE 357).

Cemeteries (Fig 6.6 Area 5)

6.19 - Though the roadside burials discussed above clearly relate to the fort and settlement at Dover, it is doubtful that they represent the full extent of the population there and it seems likely that at least one cemetery existed in association with the town. One of these postulated cemeteries is situated south-west of the fort and civil settlement, in the area surrounding the modern Adrian Street and the eastern end of Snargate Street (Figure 6.6 Area 5). Several small-scale excavations undertaken through the 18th, 19th and 20th centuries have revealed cremations in this area (TR 34 SW 132). One of the most recent of these excavations, carried out between 1983 and 1985, uncovered 4 cremation burials with associated finds of pottery and iron (TR 34 SW 1186-1187) and a child inhumation burial (Philp, 2014). It is very likely that these individual finds relate to a larger cliff edge cemetery located about 80m south of the south gate of the fort. Another possible cemetery location is on the eastern bank of the estuary, along the modern line of Woolcomber Street where a single Roman cinerary urn of a black clay was found (TR 34 SW 1901), though no further evidence has been uncovered to support this theory.

Figure 6.6 - Character areas for the earlier Roman period

Later Roman Dover and the Saxon Shore Fort (Fig. 6.7)

6.20 - The evidence discussed above relates to the earlier Roman occupation of the town – mostly dating from the early 2nd to early 3rd centuries AD. The occupation in Dover did not however, cease with the abandonment of the *Classis Britannica* fort in the early 3rd century. In the same programme of excavations that revealed the presence of the *Classis Britannica* fort, a second larger fort, interpreted as the late Roman Saxon Shore Fort, was uncovered (TR 34 SW 100). This fort formed one of several fortifications established along the south-east coast of Britain and the northern coast of Gaul. These were constructed in a piecemeal fashion throughout the 3rd century AD on strategic estuaries in response to seaborne Germanic raiders. By the end of Roman rule, the 11 forts in Britain (including four in Kent) all shared a common command (the Count of the Saxon Shore). Like the *Classis Britannica* fort, this late Roman fort at Dover was positioned on the western side of the Dour estuary, to the north-east of, and partially overlapping, the *Classis Britannica* fort (Figure 6.7 Area 1).

6.21 - The Kent Archaeological Rescue Unit excavations revealed parts of both the southern and western walls of the shore-fort, in total 95m of the south wall and 105m of the west wall (Philp, 2012). These walls were constructed using squared tufa and chalk blocks set in a hard white mortar, were around 2.5m wide and survived in some areas to a maximum height of 4m. Alongside the walls, sections of the very large western ditch (8m wide by 4m deep) and berm and parts of 7 of the external bastions were also located. Even though the excavations did not reveal the northern or western walls, some suggestions have been made about the shape and layout of the fort. A trapezoidal plan is inferred from the obtuse angle of the south-western corner and the conjectured line of the north wall, with a north-south internal length of c.115m, east-west length of c.100m at the southern end and c.125m at the northern end. This is broadly comparable to other shore forts of a similar date such as those located at Bradwell and Burgh Castle. If these dimensions are accurate this would place the western end of the fort within the Dour estuary as it existed earlier in the Roman period. Excavation has produced evidence that river silting had occurred in the years between the abandonment of the *Classis Britannica* fort and the construction of the shore-fort, thus narrowing the estuary and pushing its western bank towards the east (Figure 6.7 Area 2). Even with this silting, the construction of the fort would have required very substantial earthmoving to infill behind the new eastern wall. This may have been underway prior to the later Roman occupation of the town as several early Roman extra-mural buildings were located to the west of the Shore Fort (such as TR 34 SW 1701 and TR 34 SW 1260) (Threipland, 1957). Much of this infilling would have come from the rubble of the abandoned *Classis Britannica* fort, the demolished extra-mural buildings and perhaps from the excavation of the defensive ditches.

6.22 - The dating for this fort has come from both a study of the forts form (and comparisons with other more securely dated fortifications) and the coin finds from

the fort's interior. A date of AD 250 to 260 seems to be indicated by this evidence for the initial construction with an occupation of 60 to 70 years and an eventual abandonment in about AD 330. Documentary evidence may, however, suggest a later date for the abandonment of the fort. The '*Notitia Dignitatum',* which for the western empire covers a period spanning the late 4th and early 5th centuries, provides the only reference to the 'Saxon Shore' (Fairley, 1998). It notes that Dover (*Dubris*) housed one of the units under the overall command of the Count of the Saxon Shore thus suggesting that the fort was still being used to house troops in the late 4th century at least.

6.23 - Many of the buildings that formed part of the extra-mural settlement surrounding the earlier fort, were subsequently encompassed within the walls of the later Shore Fort. It is likely that many of these would have been demolished during the construction of the Shore Fort, for example a building located to the east of the *Classis Britannica* fort's eastern wall (TR 34 SW 1701) is sealed by the soils of the Shore Fort's southern rampart (Philp, 2012). Much of the *mansio* (TR 34 SW 85) was also destroyed when the western wall of the Shore Fort was cut through the two western rooms of the building and covered a third room in demolition rubble and clay to form the rampart bank. The eastern end of the *mansio* including the rooms of the east building (TR 34 SW 1707), appear to have been retained and were used throughout the 3rd and 4th centuries though their hypocausts were blocked suggesting a change in use (Philp, 1989). In contrast, the bath house (TR 34 SW 86) located on the northern side of the *mansio* and which had previously lain well outside the *Classis Britannica* fort walls, appears to have continued in use and became an integral part of the military buildings within the Shore Fort (Philp, 2012). It has also been suggested that the western wall of the fort was deliberately positioned to include the baths within the defensive circuit. There is very little securely dated evidence for an extra-mural settlement surrounding this later fort, though presumably one existed. It is possible that it encompassed an area to the south of the fort (Figure 6.7 Area 3) where Roman dumps (TR 34 SW 1182) and an area of late Roman metalling (TR 34 SW 1905) has been recorded (Mynott, 1981).

6.24 - There is little evidence for continued Roman occupation in Dover after the military abandonment of the Shore Fort in the first half of the 4th century and exactly how and when the Dover garrison's military duties were discontinued remains unknown. A few scenarios are feasible: it may be that the garrison abandoned Dover entirely leaving only a small civilian population there, but it is equally possible that the garrison had largely integrated into the local population by the 4th century. There is some evidence that suggests continued occupation after the abandonment of the fort. For example, coins recovered from the occupation levels of the bath house after its final period of development suggest that it remained in use throughout the 3rd century AD until the last quarter of the 4th century AD. Alongside this, an excavation carried out in 1950 at a war damaged site to the west of Market Square revealed a late Roman grave of a middle aged man (TR 34 SW 1265). The fill of the grave

contained a coin of the house Theodosius I (AD 388 to 395) suggesting a late 4th or early 5th century date for this inhumation (Thriepland, 1957). Despite this evidence, the picture remains unclear and it seems most logical to assume that when the first Anglo-Saxon settlers arrived, the Shore Fort defending the Dover Gap was no longer manned by any functioning imperial military unit.

Figure 6.7 - Character areas for Later Roman period

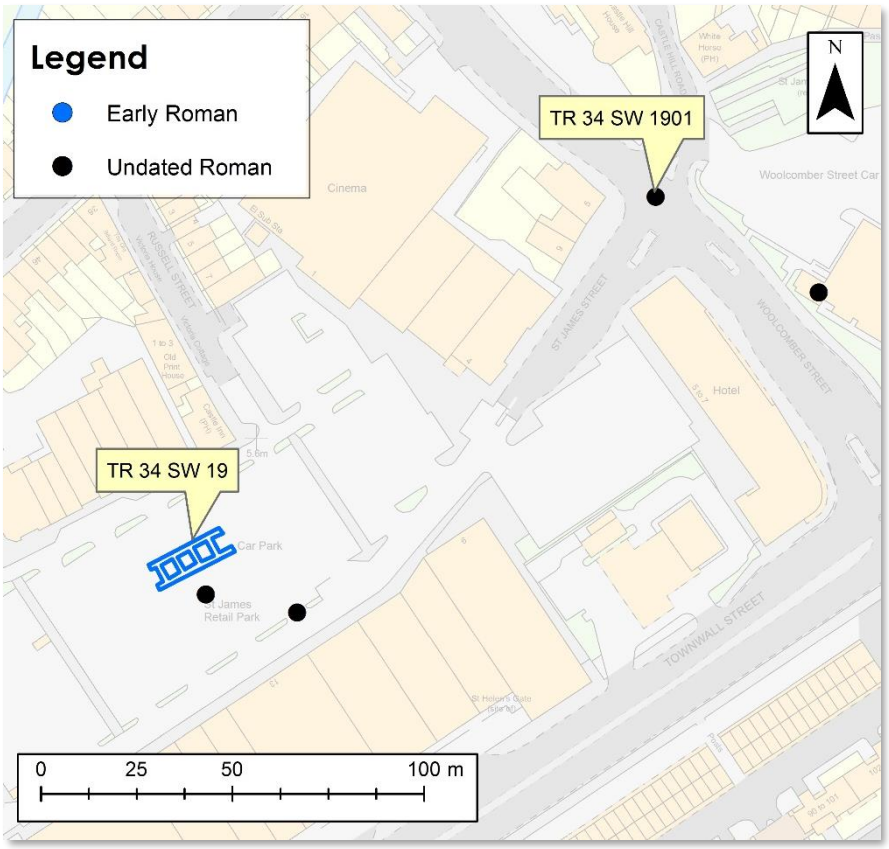

Figure 6.8 – Features mentioned in the text, eastern side of town

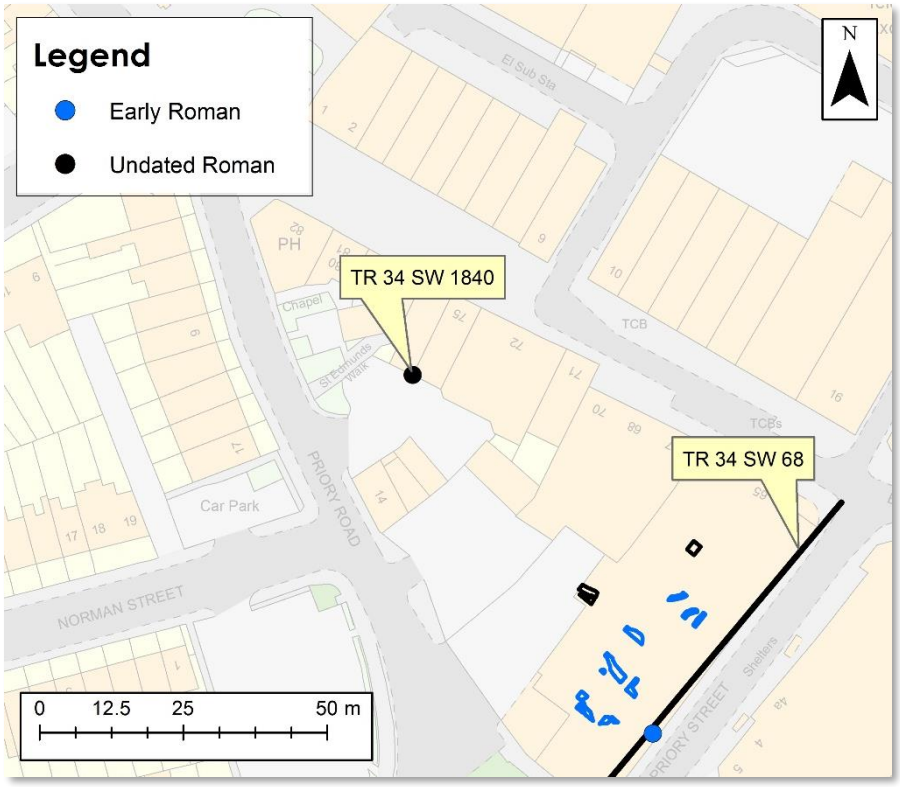

Figure 6.9 – Features mentioned in the text, northern town centre

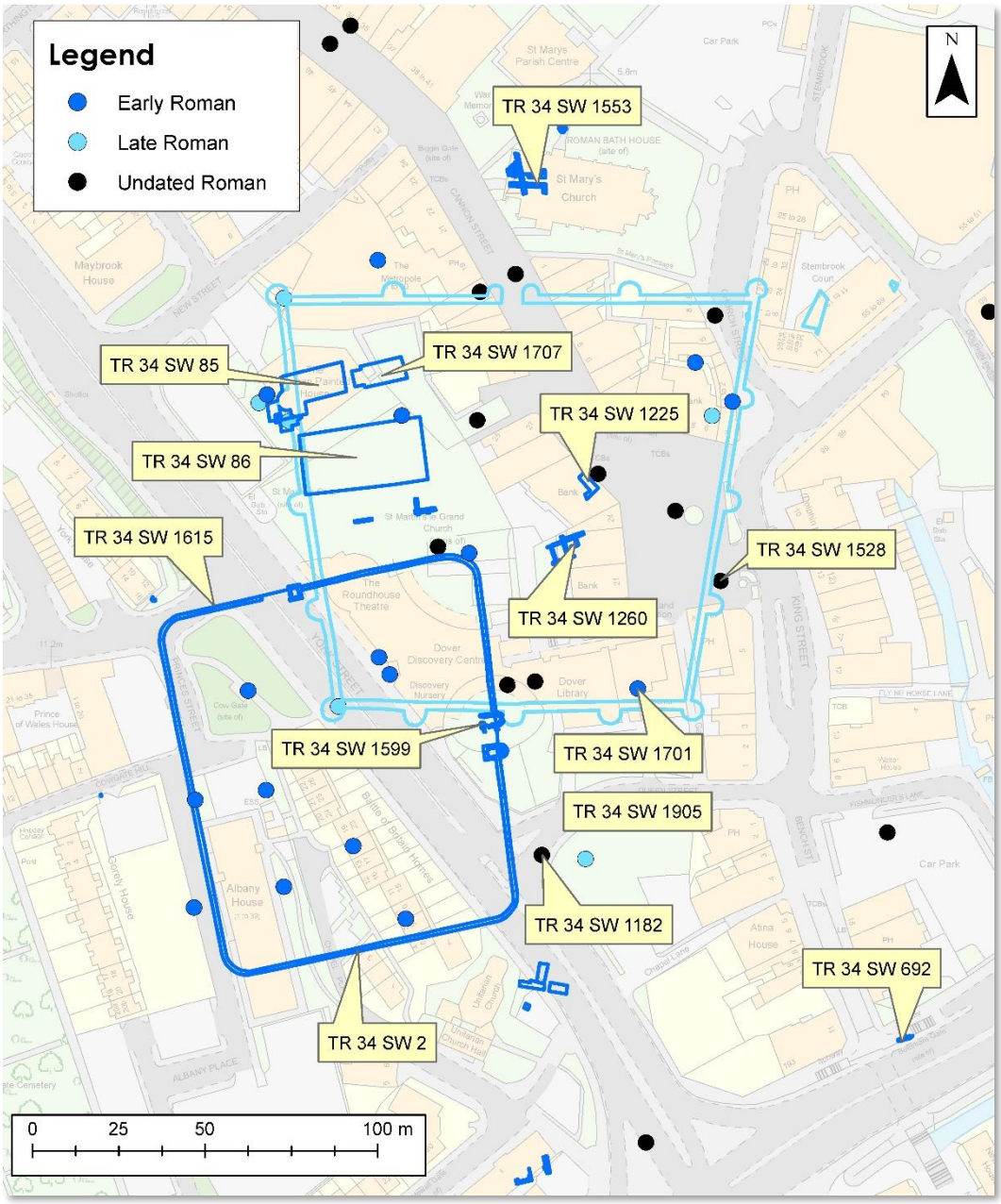

Figure 6.10 – Features mentioned in the text, Dover town centre

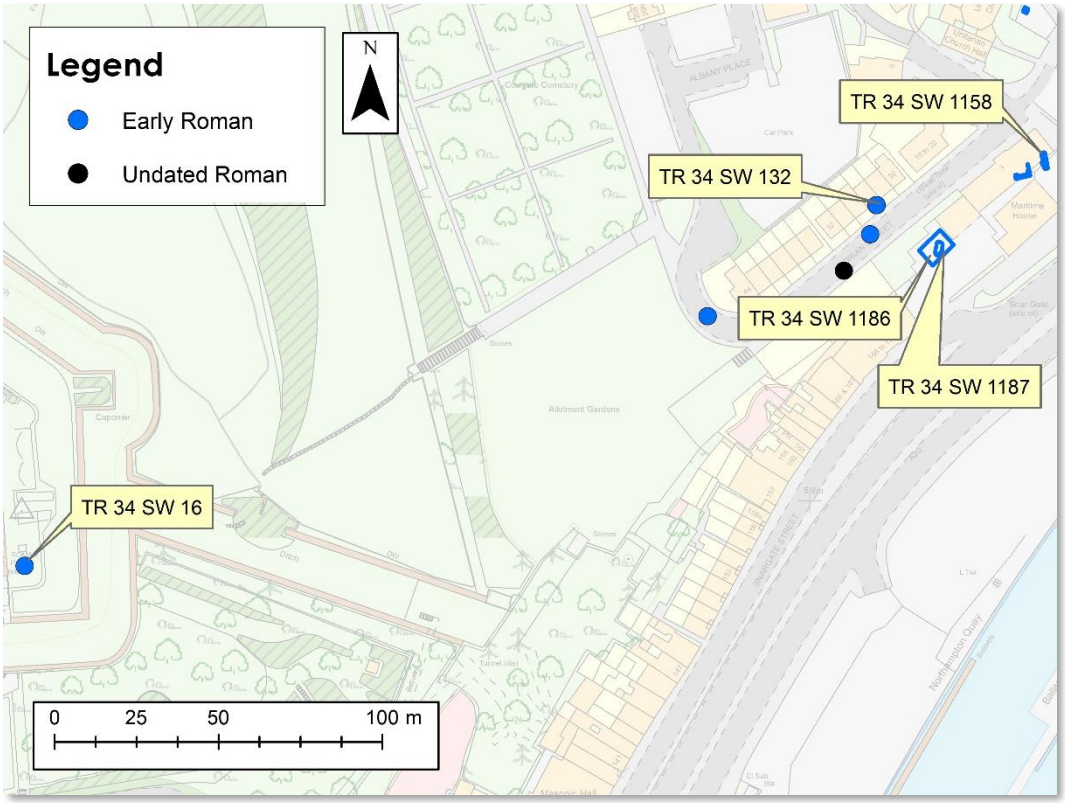

Figure 6.11: Features mentioned in the text, Snargate Street and Western Heights

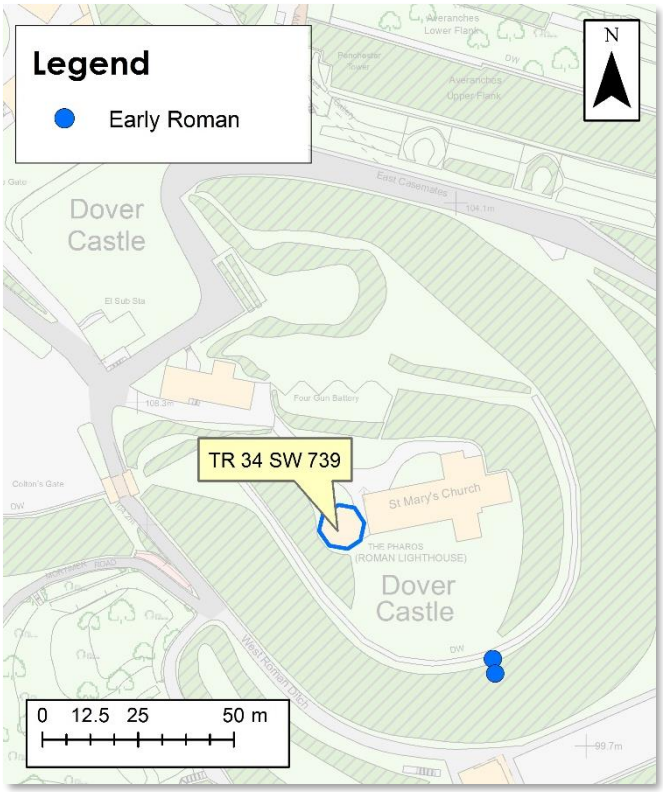

Figure 6.12: The eastern Pharos within Dover Castle

Further Reading

6.26 - Most of the information that we have about Roman Dover was produced by the Kent Archaeological Rescue Unit (KARU) excavations carried out in the town centre during the 1970s and 1980s. The details of the various Roman buildings and features have been published in the Kent Archaeological Review (Council for Kentish Archaeology) and in a series of books produced by KARU.

- Philp, B. (1981). *The excavation of the Roman Fort of the Classis Britannica at Dover 1970-1977.* Kent Archaeological Rescue Unit .
- Philp, B. (1989). *The Roman House with Bacchic Murals at Dover .* Kent Archaeological Rescue Unit .
- Philp, B. (2012). *The discovery and excavation of the Roman Shore-Fort at Dover .* Kent Archaeological Rescue Unit .
- Philp, B. (2014). *Discoveries and Excavations across Kent, 1970-2014.* Kent Archaeological Rescue Unit .

The Canterbury Archaeological Trust has also carried out work that has revealed Roman features and finds in Dover. Alongside the reports which were produced for these excavations which can be obtained from the Trust, many of the sites are summarised within annual reports. These have been published and are available online:

- http://www.canterburytrust.co.uk/publications/

Many researchers working in Dover have published papers in *Archaeologia Cantiana*, a journal which has been published since 1858 by the Kent Archaeological Society. Other journals, including The Journal of Roman Studies and the Archaeological Journal give information about some of the earlier archaeological works in the town, as well as providing some more modern reconsiderations of Dover's Roman buildings Some good examples include:

- Booth, K. (2007). The Roman Pharos at Dover Castle. *English Heritage Historical Review*, 8-21
- Puckle, C. (1893). Vestiges of Roman Dover . *Archaeologica Cantiana*, 128-136.
- Threipland, M. (1957). Excavations in Dover. *Archaeologia Cantiana*, 14-37.
- Rigold, S. E. (1969). The Roman Haven at Dover . *The Archaeological Journal* , 78-100.
- Wheeler, M. (1930). The Roman Lighthouses at Dover. *Archaeological Journal* , 26-46.
- Wright, R. P. (1956). Roman Britain in 1955 Sites Explored . *Journal of Roman Studies* , 119-152.

There are a variety of online sources available for use in the study of Roman Dover, and many of the earliest texts consulted in this chapter have been accessed online. For example, Strabo's Geography is available here:

- http://data.perseus.org/citations/urn:cts:greekLit:tlg0099.tlg001.perseus-eng2:notice

The Kent Historic Environment Record is compiled by Kent County Council and is the main record of the historic environment in the county. It includes information about archaeological discoveries and the excavations themselves, as well as sources for further reading. It is available online

https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

7 - ANGLO-SAXON (C. AD 410 TO 1065)

Introduction and summary of potential

Figure 7.1 – Anglo-Saxon ring dated c550 AD. discovered in a rubbish layer near Market Street in 1972. Image courtesy of Dover Museum

7.1 - Kent, and east Kent in particular, is an extremely important region for the study of the transition from Roman Britain to Anglo-Saxon England. The nature of this transition has been one of the most debated topics in current archaeological and historical research. One theory is of mass migration in the 5th century, mostly from northern Germany and southern Scandinavia, of people from the Jutes, Angles and Saxon tribes. Another is an `acculturation' process, perhaps involving only the physical movement into Britain of warriors and perhaps other elites (Russell, 2005). Whatever the process was, the available historical and archaeological evidence suggests that Anglo-Saxon colonisation in east Kent first began during the mid-5th century AD and by the late 6th century, if not sometime before, a fully independent kingdom had developed as a distinct political entity.

7.2 – How the first Anglo-Saxon settlers arrived at Dover is of course unknown, but they may have arrived by boat, taking advantage of the narrow gap in the cliffs that the river Dour valley offered. A string of settlement appears to have spread up the valley and evidence along the river Dour shows that this area was quite intensively occupied during the early Anglo-Saxon period. Some of the evidence uncovered includes an Anglo-Saxon farmstead or hamlet comprising at least two hall houses and four sunken featured buildings dating to the late 6th and 7th centuries at Church Whitfield. The main evidence for activity we have in the Dover area comes from the cemeteries that have been discovered. No less than five Anglo-Saxon cemetery sites are now known on the hills above the Dour valley. Outside of Dover town itself, burials and likely cemetery sites have been identified at Lousyberry Wood, Watersend north-west of Temple Ewell and Old Park Cemetery all of which may suggest nearby settlement in the valley bottom, though so far this remains unproven. By far the most extensive evidence for Anglo-Saxon occupation in this area is located immediately north of the study area, at Buckland. Here, a large and rich early Anglo-Saxon cemetery was uncovered in two parts, one by Vera Evison in the 1950s (Evison, 1987) and the other by the Canterbury Archaeological Trust in 1994 (Parfitt, & Anderson, 2012). The former revealed 170 graves while the latter revealed the presence of nearly 250 graves with grave goods included a striking number of luxury

Figure 7.2 - A selection of brooches excavated from Buckland Anglo-Saxon cemetery in 1994. © Canterbury Archaeological Trust

items. Many of these were of continental origin highlighting the strength of the links with mainland Europe. The first burials at Buckland date to the second half of the 5th century, implying that the settlement that the cemetery served was established as early as perhaps AD 450-475.

7.3 - The location and character of Anglo-Saxon settlement in Dover town itself is not so well understood. Two possible areas of occupation in the town centre have been suggested. Evidence for the first includes various structures dating from the 6th to 11th century, all located within the late Roman Saxon Shore Fort. One of these structures was a large 7th century timber building that was originally interpreted as a church due to its position very close to the later church of St Martin-Le-Grand, but which has also been suggested as a royal hall. Much of the masonry from the late Roman fort would still have stood during the initial Anglo-Saxon colonisation of the area and the protection the fort walls would have provided must have been attractive to early settlers. Anglo-Saxon burials, which have been uncovered at Albany Place and Durham Hill, point to the presence of a cemetery located close to this settlement within the fort and by the later Anglo-Saxon period there is also some evidence of activity outside the fort walls. Evidence for the second area of occupation is less secure and is largely based on an assemblage of Anglo-Saxon pottery located close to the banks of the river Dour and Priory Hill where Anglo-Saxon burials have also been revealed on several occasions. A possible third area of occupation, outside the town centre, was on Castle Hill where burials associated with Anglo-Saxon pottery have been found surrounding the large 10th century cruciform Church of St Mary in Castro. Little is known about the Anglo-Saxon activity here and it has been suggested that the site was only sporadically occupied and may have served as a place of refuge in troubled times, or as an isolated monastic establishment. The harbour at this time is also poorly understood though it was probably south and east of the fort, gradually retreating south and west as the silting of the estuary continued.

7.4 – Overall, it is clear that after the Roman military abandonment of Dover, it was settled by Germanic migrants or a possible residual population who adopted Anglo-Saxon authority (or perhaps a mix of the two), and who have left evidence of both their pagan and Christian traditions. The settlement grew throughout this period to become a town and port of importance. By the time of the Norman conquest it was a

trading and administrative centre, part of the Cinque Ports confederation with a mint and a charter. Dover therefore has an important contribution to make to Anglo-Saxon studies in England and to our understanding of social and economic change in this period. Further excavation, and complete publication of past excavations, will be needed to fully uncover this history and better understand a critical period in the development of the town.

Occupation within the Roman Fort (Fig. 7.3 Area 3)

7.5 - There are two likely areas of early Anglo-Saxon occupation within modern Dover's town centre. Evidence of the first (Figure 7.3 Area 3) was retrieved during the Kent Archaeological Rescue Unit excavations carried out across the town centre in the 1970s and 1980s (Philp, 2003). This evidence comes from both within and immediately surrounding the walls of the late Roman Saxon shore fort. With the breakdown of the imperial administration of Roman Britain, it seems unlikely that this Shore Fort defending the estuary at the mouth of the river Dour was manned by any functioning imperial military unit much past the first part of the 5th century. Most of the archaeological evidence from Dover supports this, with the latest Roman occupation evidence dating broadly to the late 4th to early 5th century. Very little is known about the occupation of Dover immediately following the military abandonment of the Saxon Shore Fort and there is no clear evidence for continuous, uninterrupted occupation following the decline of Roman rule. Despite this, it is very likely that many of the Roman features still existed within Dover in the later 5th century and the substantial nature of the walls would have meant that they would have been at least partially upstanding at the time of the construction of the Anglo-Saxon buildings. Within these walls, a boulder road (TR 34 SW 1549), dump deposit (TR 34 SW 1541) and 10 structures were revealed, some of which have multiple phases of construction and it is likely that more may have existed in the unexcavated areas. The buildings recovered fall into two distinct groups, one of 6th to 8th century date, and the other 9th to 11th. Despite these distinct groups it is possible that occupation across the area was continuous and the earliest finds date to the late 5th century, most notably a class A1.2 button brooch and a Kempston cone beaker. The structures recorded include five sunken featured buildings together with the remains of three surface-built structures that could represent halls. One of the sunken feature buildings (TR 34 SW 1539) appears to have been destroyed by a fire and was therefore unusually well preserved. The remains included numerous well-preserved structural timbers and areas of surviving wattle. Evidence for the use of this structure as a weaving hut was also recovered in the form of nearly 200 clay loom weights. Alongside these buildings, the remains of a large and highly complex Anglo-Saxon timber building (TR 34 SW 1551) were located immediately to the south and partly underneath of the church of St. Martin-Le-Grand, on broadly the same east-west axis. It was originally interpreted as a church, possibly a precursor to the church of St Martin-le-Grand, but others have suggested that its form leads to a more convincing interpretation as a royal hall (Thomas, 2018). The excavated features consisted of

deep wall trenches and pits, dug through the underlying Roman deposits to a depth of between 30cm and 1m.

7.6 - Documentary records indicate that sometime during the 7th century Dover became a monastic centre and tradition asserts that King Eadbald (AD 616 to 640) established a house for 22 canons 'in the castle'. It is not clear whether this 'castle' is referring to the Saxon Shore Fort or Dover Castle where later Anglo-Saxon remains have also been discovered (see below). Despite this uncertainty, this major timber building remains a possible candidate for the site of this monastic establishment and several of the 7th century and later buildings surrounding it may have also been associated with this monastery. Its position within the ruins of the Roman fort is similar to other sites in Kent including St Augustine's Church at Richborough (7th to 10th century) and St Mary's Church at Reculver (AD 669) as well as numerous other monastic centres discovered within the walls of non-military Roman centres in Britain such as St Paul's in London and Christchurch in Canterbury. The Dover features therefore fit into what appears to be a well-established model for the construction of both Anglo-Saxon settlement and monastic centres - the re-use of upstanding Roman buildings and sites. However, the buildings within the Shore Fort at Dover differ in that they are made of timber and are of a very different design to elsewhere. The site is therefore an outlier when considered alongside other early Anglo-Saxon churches in Kent. A monastic church of this date would be expected to be built of stone and the Roman ruins would have provided a plentiful supply; the fact that it is made of timber and of a completely different form appears to suggest that this building at Dover was not a church and that the monastic centre mentioned in the documentary sources is still awaiting discovery elsewhere in the town.

Burials associated with occupation within the Shore Fort (Fig. 7.3 Area 4)

7.7 – It was originally assumed that the burials discovered on Priory Hill (discussed below) related to the Anglo-Saxon settlement within the Roman Shore Fort, but more recent excavations have revealed another cemetery site (Figure 7.3 Area 4). Four adult inhumation burials (TR 34 SW 141) were discovered by the Kent Archaeological Rescue Unit while carrying out trial excavations at Albany Place in 1979 and 1980 (Youngs & Clark, 1981). Here, demolition rubble covering a series of Roman buildings was cut by burials indicating a likely Anglo-Saxon date. Three further burials and a possible fourth (TR 34 SW 1107-1108) were found during evaluation trenching carried out at Albany Place in the 1990s, again by the Kent Archaeological Rescue Unit (Philp, 1990). These burials have not been securely dated but like the others, they were cut into the underlying Roman features and demolition rubble. A number of findspots located close by (TR 34 SW 50) adds weight to the idea that a cemetery associated with the settlement within the fort walls existed to the west and perhaps demonstrates cemetery creep along the hill side.

These finds include two Anglo-Saxon penannular brooches and two Anglo-Saxon buckles which were all recovered from Durham Hill sometime before 1939.

Anglo-Saxon activity north of the town centre (Fig. 7.3 Areas 1 and 2)

7.8 - The second possible area of occupation (Figure 7.3 Area 1) is located between the western bank of the river Dour and Priory Hill, though no buildings have yet been found to definitively prove its existence. The suggestion that the area was occupied is based on the assumption that a series of Anglo-Saxon burials on Priory Hill (TR 34 SW 6), and a pottery assemblage uncovered on the western banks of the Dour (TR 34 SW 1462), imply contemporary occupation nearby (Parfitt, 1994 & Corke 1995). The assemblage was uncovered during works associated with the demolition of buildings at the Royal Victoria Hospital. It included an important group of Anglo-Saxon pottery sherds ranging in date from the 5th to 7th century AD in association with fragments of burnt clay/daub and animal bone. Though no building remains were discovered, this collection of finds may have come from a community that occupied land just above the valley bottom, directly below Priory Hill and possibly along the line of the Roman road to Canterbury, adjacent to the Royal Victoria Hospital site.

7.9 - The above-mentioned cemetery on Priory Hill (Figure 7.3 Area 2) was first identified in the 19th century, when 'swords, spears and beads [were] discovered in digging in the chalk' (Batcheller, 1828). Further finds were made during building construction work in the 1880s. These finds add weight to the suggestion that there was occupation somewhere close to the Royal Victoria Hospital site, as it is located just 200m to the south-west. It was noted in 1883 that fragments of swords and spears, limpet shells and 'jasper stones' were found in Anglo-Saxon graves here, and a high quality Kentish composite brooch, which was sold to the British Museum in 1879, is also thought to have come from this area (Rigold & Webster, 1977). Unfortunately, the records for these early discoveries are sparse but further graves have since been uncovered during excavations undertaken in the 1980s (Wilson, 1988). Five graves were located within the houses and gardens of 48, 64 and 68 Priory Hill, and contained 3 iron knives, an iron spearhead, an iron belt plate fitting and a bronze buckle loop. It is likely that these graves and finds represent part of a larger cemetery or form part of a series of cemetery plots which may survive under the houses on Priory Hill. The dating evidence suggests that it was in use between the 6th and 7th century, a date which is broadly contemporary with the pottery located by the river.

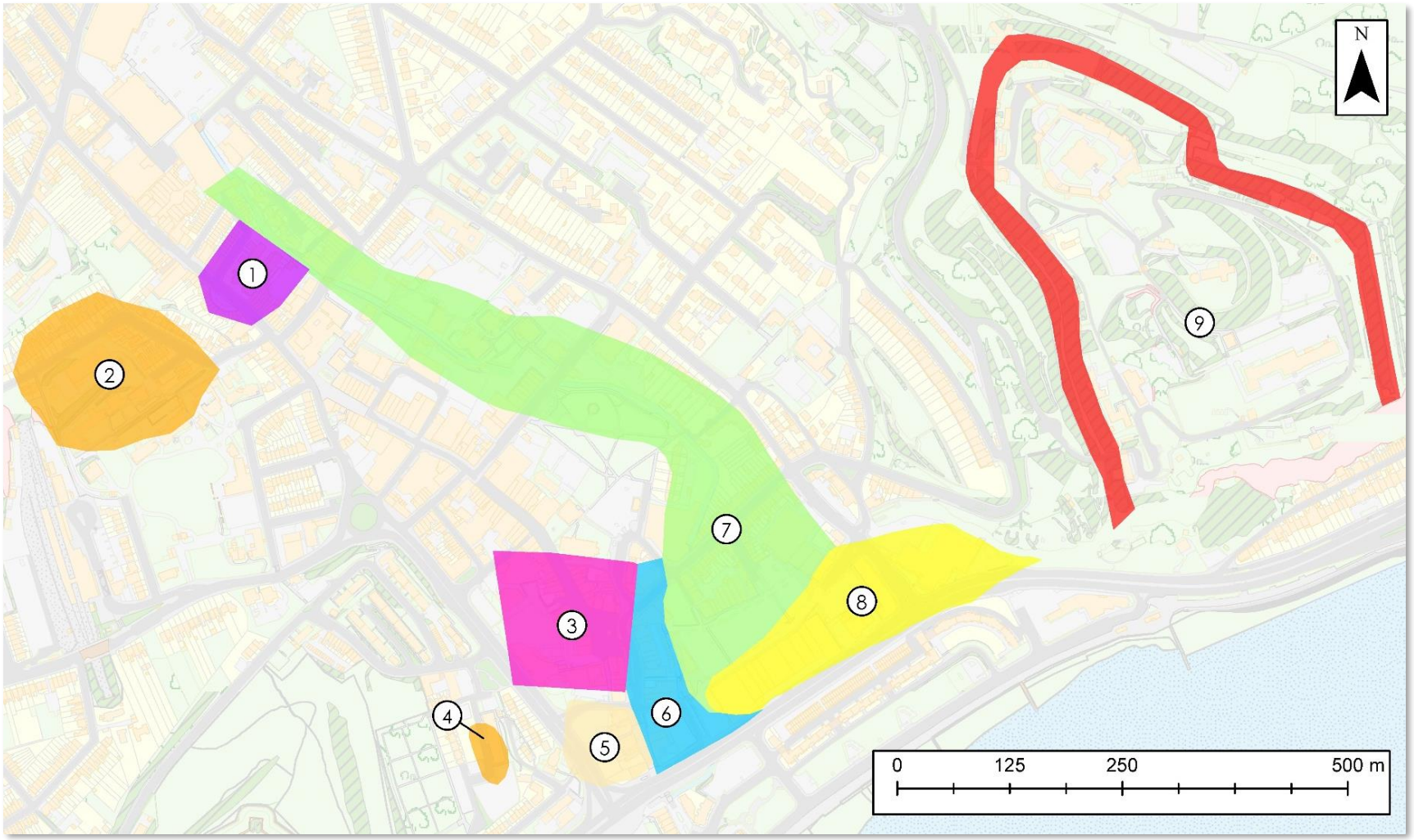

Figure 7.3 – Anglo-Saxon character areas

Anglo-Saxon Harbour (Fig 7.3 Area 5)

7.10 - As in the Roman period, it is likely that the earlier Anglo-Saxon harbour was located immediately east and south-east of the Shore Fort (Figure 7.3 Area 5) and may have re-used some of the surviving Roman features. Silting of the estuary continued during the years following the Roman occupation, and as well as riverine silting, there is also evidence for the deposition of marine sands and beach gravels/shingle. It seems likely that the location of the harbour moved progressively southwards following the changing mouth of the estuary. For the later Anglo-Saxon period, there is also some evidence that the ground in this area was being reclaimed and consolidated. Archaeological work associated with the A20 road and sewer scheme in the early 1990s, revealed evidence for the former existence of estuarine deposits (TR 34 SW 1441) (CAT, 2001). The organic sediments filling this area, whether of freshwater or tidal origin, contained pottery dateable to the period c. AD 1050 to 1175 and yielded considerable quantities of domestic rubbish, particularly fish remains, making it clear that the area was being used for rubbish dumping at this time. These water-laid organic silts with their overlying consolidation deposits were traced eastwards down Fishmonger's Lane towards the present route of the river. The dumping of rubbish within the wet area implies that attempts were being made to reclaim ground here. This in turn suggests that the area no longer had any usefulness as a basin and may indicate a south-easterly shift in the site of any harbour. We know from documentary sources that by the end of the Anglo-Saxon period the harbour lay at the mouth of the Dour. The presence of a tidal mill is mentioned in the Domesday Book which notes that '*at the entrance to Dover Harbour is a mill, which wrecks most all ships through its great disturbance of the sea'* (Domesday Book: A Complete Translation, 2003). This mill at the mouth of the Dour was constructed soon after 1066 but it seems likely that earlier ones had existed elsewhere on the river before then. The mouth of the river Dour would have had to have been narrow in order to accommodate a mill, thus, the consolidation of the ground which appears to have begun in the late Anglo-Saxon period was completed relatively quickly. It is very likely that the form of the harbour in the 11th century differed greatly from its form at the beginning of the Anglo-Saxon occupation of the town in the 5th and 6th centuries, though the details remain unclear.

Later Anglo-Saxon expansion (Fig 7.3 Area 6)

7.11 - In the earlier Anglo-Saxon period the evidence for settlement in Dover is limited to the two areas discussed above, but by the later Anglo-Saxon period, in addition to the consolidation of the ground within the harbour basin, the settlement appears to have expanded beyond the Shore Fort walls. Part of this expansion has been identified south of the Shore Fort and west of the harbour basin, on an area of wind-blown sand (Figure 7.3 Area 6). Again, this evidence was discovered during the work associated with the A20 road and sewer scheme and was located on Bench Street (CAT, 2001). The evidence consisted of a series of thin, ashy occupation

layers resting upon the surface of a thick deposit of sand filling the old harbour estuary (TR 34 SW 1442). The occupation layers were frequently separated by thin layers of sand, perhaps implying gaps in the occupation of the area. Only a small number of features were found and included pits and post-holes, all found below modern Bench Street. Pottery that may be broadly dated to c. AD 875 to 1100 was found in association with these layers along with significant amounts of fish and animal bones. It is unlikely that this evidence reflects permanent settlement but more likely represents casual intermittent occupation. A suggestion has been made that this area may relate to the site of an annual herring fair but there is no firm evidence for this interesting idea.

7.12 - It is clear from the evidence discussed above that most of the Anglo-Saxon occupation was located in the western portion of the modern town. This is largely due to the fact that the harbour lay to the east, and, even by the later Anglo-Saxon period, after parts of the harbour had been reclaimed or silted up, the ground surrounding the present course of the river Dour would have been water meadows, unsuitable for large scale settlement (Figure 7.3 Area 7). The exception to this is an area approximately 150m from the modern shoreline (Figure 7.3 Area 8). Historical sources note that there has been a tendency for shingle to be deposited along the shore in this area, creating an extensive shingle spit that now lies under the modern promenade. This eventually caused the sharp turn towards the south-west that the river Dour now takes. This accumulation is largely due to natural processes, though the construction of the early Roman breakwater within the harbour may also have played a role. No evidence of features or structures of an Anglo-Saxon date has been recovered from this shingle spit, but its existence is attested by several discoveries made during borehole surveys in the area. Over 20 boreholes were drilled during works associated with the recent regeneration of the St James area. Many of these recorded several metres of this shingle at approximately 4m below ground level and beneath c.2-3m of stratified archaeological deposits (CAT, 2018). Observations made during the St James area excavations also showed the presence of marine sand mixed with some beach shingle and associated with a quantity of unworn Roman pottery, suggesting that the marine deposits were laid down well before the

Figure 7.4 - A rare Anglo-Saxon coin of Coenwulf, King of Mercia dating to AD 796-821discovered in the St James area of the town. Image courtesy of Canterbury Archaeological Trust

Norman conquest. The old line of St James Street (TR 34 SW 1823), one of the lost streets of Dover, which ran east-west roughly parallel with Castle Street, extended roughly centrally along this sand and shingle ridge. It was certainly an early road and finds from an early metalled road surface indicate that it was at least Norman in date. It may represent the original route east out of the town towards Castle Hill along this shingle spit. A rare Anglo-Saxon coin of Coenwulf, King of Mercia, dating to AD 796 to 821 and found in this area during works undertaken by the Canterbury Archaeological Trust (TR 34 SW 2155) may add weight to this suggestion.

Possible Burh at Castle Hill (Fig. 7.3 Area 9)

Figure 7.5 – Late 10th century church of St Mary in Castro and the Roman Pharos on Castle Hill, Dover.

7.13 - The final area in which Anglo-Saxon occupation has been confirmed is on the eastern cliff above the town, within the walls of medieval Dover Castle (Figure 7.3 Area 9). Sometime between AD 950 and 1000, the large cruciform church of St Mary in Castro was constructed (TR 34 SW 864) adjacent to the Roman lighthouse. In addition, excavations undertaken in the 1960s immediately south of the church revealed thirteen shallow graves with traces of coffins orientated east-west in association with sherds of Saxon pottery (TR 34 SW 66) (Biddle, 1964). An early ditch was also uncovered during these excavations (TR 34 SW 2760) and although it has not been securely dated, it certainly appears to pre-date many of the other medieval earthworks at the castle and may relate to works either put up immediately prior to or just after the Norman Conquest. Although the church and cemetery were almost certainly located within a Saxon settlement, its precise status is unclear. Documentary sources, including an entry in the Anglo-Saxon Chronicle, suggest that it was probably a burh or fortified town which may have utilised the pre-existing earthworks of a possible iron age hill fort. The Chronicle notes that Eustace of Boulogne, after arriving in Dover in 1048 and slaying a man there, went on to ride up to, and attacked, the town (but was repelled), thus suggesting the presence of a settlement above the valley (The Anglo-Saxon Chronicle, 1953). Further documentary sources that suggest the presence of Anglo-Saxon settlement on the eastern hill include a note in *The Carmen de Hastingae Proelio* (which describes the Norman invasion) by Guy bishop of Amiens. This refers to King William entering the castrum at Dover and ordering the English to evacuate their houses (Bishop of Amiens Wido, 1999). Other than the church and burials, no other archaeological evidence of Saxon settlement has been uncovered on the hill and it has been suggested that the hill-top enclosure may have

served as a place of refuge in troubled times - both the stone-built church and the Roman lighthouse could have been readily defended. Whatever their status, some form of defensive structure certainly did exist on Castle Hill immediately prior to the Norman Conquest. Documentary sources note that Duke William spent eight days adding to, and improving, these defences before moving to Canterbury. William of Poitiers describes William I's taking and fortifying the Castle at Dover, which he describes as being on the hill (Chibnall, 1998). Poitiers also says that Harold had sworn to hold Dover Castle on Williams behalf which suggests that it was considered an important asset from an early period. Overall, though its importance is hinted in various sources, the extent and character of the defences at Dover Castle before and after 1066 remains to be resolved.

7.14 - It is clear from both the archaeological record and documentary sources that by the Norman Conquest, Dover had risen to become a town and port of some status. By the late Anglo-Saxon period the town was a head port of the Cinque Ports confederation providing ship-service for all the late Anglo-Saxon kings. Edward the Confessor (AD 1042 to 1066) had recognised the capabilities of the mariners at Dover and the strength of their ships. This, along with its excellent strategic position, meant that Dover became the base for the royal fleet in 1036 and in 1041 the king provided Dover with a charter. It is very likely that Dover's importance as a trading settlement pre-dates these documentary records. The rich grave goods uncovered in the nearby Buckland cemetery, and finds made within the Shore Fort (TR 34 SW 1541) are a sure reflection of both the connections with the continent that the harbour allowed and the wealth that such trading links are likely to have brought to the inhabitants of the town. By the middle of the 10th century, during the reign of Aethelstan (AD 924 to 939), a named mint (Doferi) existed in Dover, again suggesting that there was a sizeable trading community here. The Dover mint expanded in the early 990s with four moneyers known. This had increased to six when the last small cross pennies of Aethelred II were being produced (AD 1009 to 1017) and production levels reached a peak with nine moneyers known for the short cross type of Cnut (AD 1016 to 1035). In 1066 it was noted in the Domesday Book that the settlement was burnt down (though there is nothing apparent in the archaeological record to prove this burning) (Domesday Book: A Complete Translation, 2003). By the end of the 11th century however, the town had been completely rebuilt and was beginning to expand in all directions, being ranked second only to Canterbury in terms of population size in Kent.

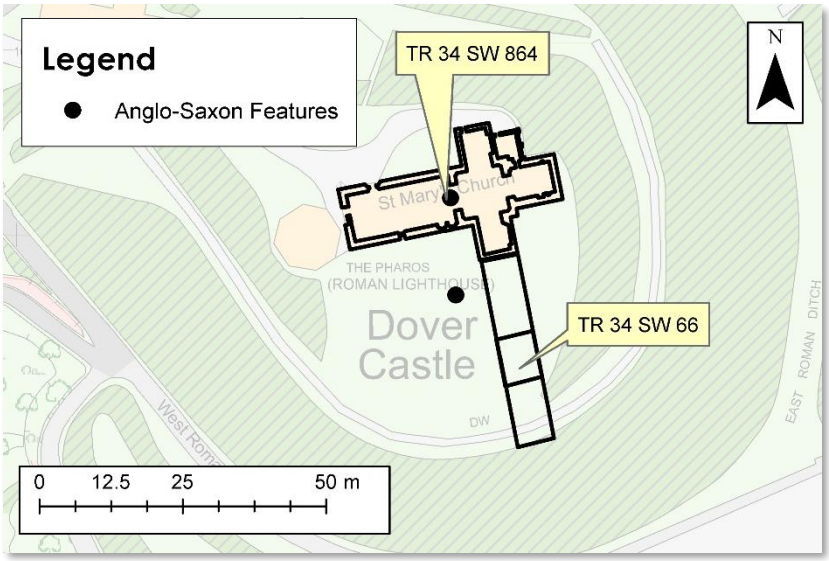

Figure 7.6 - Features mentioned in the text: Dover Castle

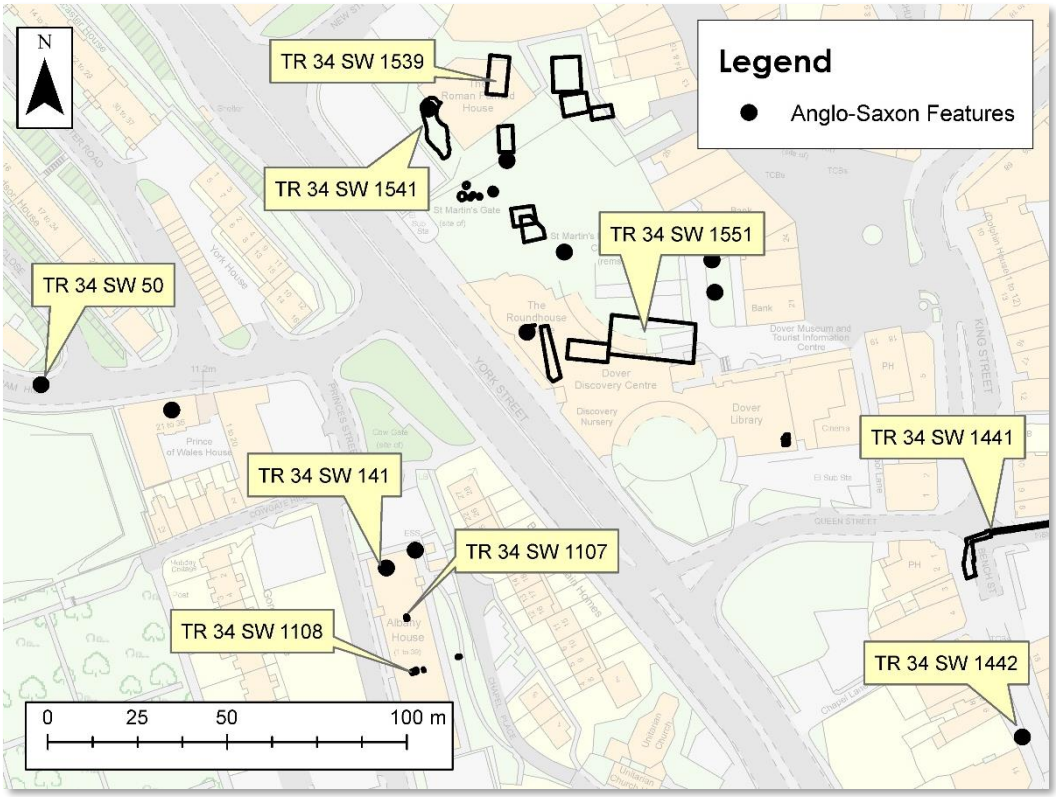

Figure 7.7 - Features mentioned in the text: town centre

Figure 7.8 - Features mentioned in text: northern end of town centre

Further reading

7.15 - The archaeological excavations that have been carried out on the large cemeteries surrounding Dover have been published in substantial volumes. These also include a useful introduction to the Anglo-Saxon period for this region:

- Evison, V. (1987). *Dover: The Buckland Anglo-Saxon Cemetery.* Oxford: St Phillip's Books.
- Parfitt, K., & Anderson, T. (2012). *Buckland Anglo-Saxon Cemetery, Dover.* Canterbury Archaeological Trust.

The Anglo-Saxon activity within, and immediately surrounding, the Shore Fort walls was uncovered during the KARU excavations undertaken in the town centre and has also been published. In addition, various papers have been published that focus on the individual features revealed during these excavations and may offer alternative or updated interpretations:

- Philp, B. (2003). *The Discovery and Excavation of Anglo-Saxon Dover.* Kent Archaeological Rescue Unit.
- Thomas, G. (2018). Mead-Halls of the Oiscingas: A New Kentish Perspective on the Anglo-Saxon Great Hall Complex Phenomenon. *Medieval Archaeology, Vol, 62*, pp. 262-303.

Some of the other smaller excavations have also been published in journals or periodicals:

- Biddle, M. (1964). Medieval Britain in 1962 and 1963; Kent: Dover. *Medieval Archaeology, Vol, 8*, pp. 254-255.
- Corke, B. (1995). Fieldwork III Kent sites: 18 Royal Victoria Hospital, Dover. *Canterbury's Archaeology 1994–1995, Vol, 20*, pp. 20-42.
- Philp, B. (1990). Major Discoveries at Dover 1990. *Kent Archaeological Review, Vol, 102*, pp. 33-47.
- Rigold, S. E., & Webster, L. E. (1977). Three Anglo-Saxon Disk Brooches. *Archaeologia Cantiana, Vol, 85*, pp. 1-18.
- Wilson, J. (1988). Saxon Burials from Priory Hill Dover. *Kent Archaeological Review, Vol, 94*, pp. 81-92.

This is the first period for which the documentary sources become more widely available and are relatively reliable. A few have been used for this summary (many are also available online)

- *Domesday Book: A Complete Translation.* (2003). (G. H. Martin, Trans.) Penguin Books.
- The Anglo-Saxon Chronicle. (1953). (G. N. Garmonsway, Trans.)
- Bishop of Amiens Wido. (1999). The Carmen de Hastingae Proelio of Guy, Bishop of Amiens. (F. Barlow, Trans.) Oxford: Oxford University.

The Kent Historic Environment Record is compiled by Kent County Council and is the main record of the historic environment in the county. It includes information about archaeological discoveries and the excavations themselves, as well as sources for further reading. It is available online

- https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

8 - MEDIEVAL (AD 1066 TO C.1500)

Introduction and Summary of Potential

Figure 8.1 – Dover's medieval Castle

8.1 - The burning of Dover by the Normans upon their arrival in England is recorded in the Domesday Book (though has not been seen archaeologically). This did little to change the growing prosperity of the town, however, which continued to expand throughout the medieval period. As part of this, settlement spread, possibly for the first time, to the eastern side of the Dour in the St James area. The population growth of Dover in the medieval period is hard to estimate but by the late 13th century the population had grown such that 21 administrative wards could be defined.

8.2 - The strategic position of Dover, as the closest town and port to France, meant that it had to be defended. The exact history of Dover's defences is not well understood - the first repairs to the gates are recorded in the late 14th and 15th centuries, likely in response to the threat from the French (renewal of the Hundred Years' War). This absence of documentary evidence may, however, be misleading and it is possible that a town wall was present in the 13th century, with construction and repair work to the wall undertaken before the documented murage grands were given. The precise route of the wall is also not entirely certain. The southern line appears to have run from a point east of Eastbrook gate at the base of Castle Hill, across the former Woolcomber Street, and along Townwall Street and Snargate Street, turning north to cross Adrian Street. Parts of the wall and the remains of both Boldware and Butchery gates were uncovered during excavations along the line of the modern A20, but only portions of its route were seen. The location of the wall to the north and east of the town is still uncertain. It is possible that the town was never fully enclosed. In addition to those gates recorded during excavations, the presence of three more (Snar Gate, Cow Gate, Biggin Gate) are known from the historic maps, and it is likely that even more existed, including for example St Martins Gate and Old Snar Gate.

8.3 - The most prominent defensive feature at Dover is of course Dover Castle which may have had its origin in the Anglo-Saxon period or earlier. It began to take on the shape of a medieval castle from the late 11th century and was greatly modified thereafter. By the end of the medieval period it had become the largest castle in the country and one of the most powerful and sophisticated fortifications in medieval Europe with its defences featuring a new and influential design.

8.4 - Within the town, new churches and chapels were built reflecting both population growth and Dover's growing role in the Canterbury to Rome pilgrimage route. These included the churches of St Mary, St James (both of which have surviving Norman fabric) and St Peter but other churches (or chapels) are mentioned in documents such as St. Martin the Less, St Nicholas's and St John's. St Martin-le-Grand was also expanded and remained in use throughout this period. Today its partial footprint is visible above ground, close to Market Square. Dover Priory was founded for Augustinian Canons in 1131 away from the medieval town. The Maison Dieu, a medieval hospital, was founded by Hubert de Burgh (c. 1160 to 1243), first Earl of Kent, in the early decades of the 13th century. Much of the medieval fabric remains in both the Priory and the hospital. At the Priory this includes the refectory, the strangers hall, parts of the cloisters and the gatehouse, while at the Maison Dieu the chapel (c. 1227), the Stone Hall and the tower are believed to date from between 1250 and 1350, and are all still upstanding.

8.5 - The tidal basin of the river Dour as used by the Roman and Saxon occupants of the town, had silted up by the 11th century meaning the medieval harbour may have been located along the shoreline beneath the cliffs of the Western Heights, with smaller vessels being dragged onto the beach. In the late 15th and 16th centuries a series of substantial new harbour installations were created, approximately 1km to the south-west of the town centre at Archcliffe Point. After various phases of improvement and expansion (many of which were short lived and unsuccessful), by the late 16th century these harbour installations had come to resemble parts of the western docks as they were prior to recent development.

8.6 - There is a wealth of medieval evidence from Dover, including both the archaeological discoveries beneath the ground as well as numerous features visible above the ground. Numerous artefacts have revealed evidence of the trading links and importance of medieval Dover as a conduit to the continent as well as the detail of the lives of Dover's medieval inhabitants, their trades, beliefs, clothes and household objects. The town they knew can still be imagined in the surviving pattern of roads and lanes, and in the form of large numbers of standing structures such as the Castle, Maison Dieu and various Churches. The Kent Historic Environment Record lists at least 15 buildings with medieval fabric in Dover not including the Castle and there are possibly more that are yet to be identified. These all evidence the development of the town in the medieval period but also make an important contribution to Dover's historic character.

The layout of the medieval town west of the Dour (Fig 8.2 Area 1)

8.7 - Parts of the layout of the medieval town, and the road network for this period, seem to have survived largely unaltered into the first half of the 20th century. Dover was badly damaged during the Second World War which destroyed much of the medieval and post-medieval town. Despite this, however, some of the early street arrangements still survive, particularly in the western portion of the town. Some good

examples include Bench Street which survives largely in its original position despite having been widened in the post-medieval period. King Street to the north, leading to the main medieval marketplace on Market Square, also has a likely early origin. Both Fishmongers Lane and Flying Horse Lane, which run east towards the river Dour from Bench and King Street, are shown on early mapping. Examination of the fabric of the bridge which carries Flying Horse Lane over the river Dour suggests that some of it is of later medieval date (TR 34 SW 584) (CAT, 2001). To the north of Market Square, both Cannon Street and Biggin Street are clearly shown on early post-medieval mapping (though again these were widened in the later post-medieval period) and possible evidence for their early origin comes from the surviving medieval buildings which front onto them, including St Mary's Church and the Maison Dieu.

8.8 - A series of archaeological investigations associated with the A20 road and sewer scheme was carried out along some of these historic routeways. Many of these produced evidence that several routes in Dover had an early origin. For example, an excavation on Bench Street, just in front of the buildings on the eastern side of the street, revealed traces of medieval walling (TR 34 SW 1343) a medieval undercroft (TR 34 SW 1341) and the footings of a substantial medieval tower (TR 34 SW 1342), all of a likely 13th to 14th century date (CAT, 2001). The undercroft had a vaulted roof, and the various internal architectural features indicated that it had belonged to a building of some quality. The remains of the tower, which had stood until the road was widened in 1836, consisted of mortared chalk foundations some 1.86m in width and 1.65m deep. Further work associated with this new road and sewer scheme was also undertaken on the western side of Bench Street where more medieval features were recorded. The principal structure uncovered consisted of a stone-built medieval undercroft (TR 34 SW 468), with part of its' original vaulted roof still surviving. This perhaps formed part of a rich merchant's residence and a detailed study of the heavily restored fabric succeeded in identifying the presence of at least two separate periods of medieval work. To the south-west of this vaulted undercroft, a complex of medieval cellars and garderobes was revealed with dating evidence that suggests a 13th to 14th century date. It is clear that in this part of the town at least, the streets were heavily occupied by what appear to be fairly high-status residences by the middle of the medieval period.

8.9 - Much of the information that we have about the medieval development of the town was gathered during the large-scale excavations undertaken in the 1970s and 1980s by the Kent Archaeological Rescue Unit. Although the information about these discoveries is awaiting detailed publication, the excavations encountered many medieval features. These included pits, wells, shafts, boundary walls, tanks, graves and the foundations of masonry and chalk block buildings (TR 34 SW 1661), all of which cut into the underlying Roman and Saxon Features (Philp, 1981). These excavations demonstrate that the medieval settlement of Dover extended at least as far west as the modern course of York Street.

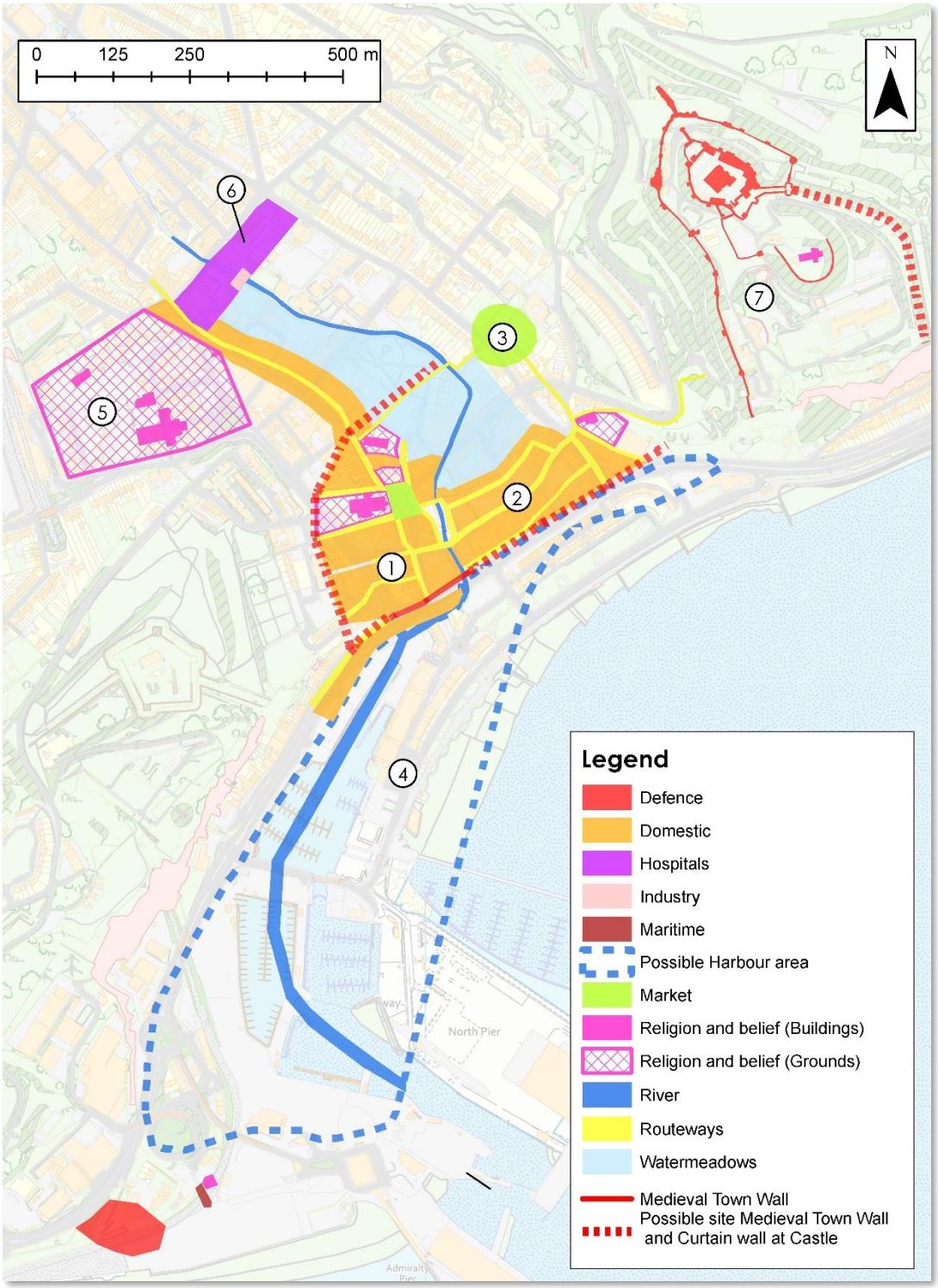

Figure 8.2 – Likely extent of medieval town before c.1500

The layout of the medieval town east of the Dour (Fig. 8.2 Area 2)

8.10 - On the eastern side of the river Dour less of the medieval street pattern survives as many of the buildings were swept away during the town's post-war redevelopment, particularly in the area between the river Dour, Woolcomber Street, Castle Street and Townwall Street. Several historic routeways have been identified, however, during archaeological investigations in the area. The former line of Clarence Street, which also appears on some historic mapping as Townwall Lane, (TR 34 SW 1502) has been discovered in two separate excavations of the area, one in 1996 (Parfitt, Corke, & Cotter, 2006) and again in 2015 to 2016 (Parfitt, 2018). The road appears to have been dated originally to the early 12th century (c. 1125) with alterations made to it throughout the medieval and post-medieval periods. To the north-west of this, a short section of Arthurs Place was located directly below the modern tarmac (TR 34 SW 2132). A succession of well-laid later medieval roads composed of rammed chalk rubble, the earliest of which was perhaps late 13th century in date, was revealed below post-medieval road surfaces. Parts of the former Dolphin Lane (TR 34 SW 2139) and Russell Place (TR 34 SW 2140) were also discovered during the 2015 to 2016 excavations (Parfitt, 2018). Both routeways had buildings of a medieval date fronting onto them, again suggesting an early origin. It is possible that many of these routeways are contemporary, with possible indications that they were deliberately laid/metalled. This would suggest some form of early civic or town planning.

8.11 - The main, and possibly earliest, routeway running east-west through this eastern portion of the town would have been St James Street (TR 34 SW 1823). As discussed in the previous chapter, this road is of possible Anglo-Saxon origin and may have formed the earliest route running along the shingle spit between the main settlement on the western side of the river Dour and the Castle. Finds from the primary metalling layers of both St James Street and Clarence Street, uncovered during the 2015 to 2016 excavations, indicated that they had been laid out during the Norman period (Parfitt, Corke, & Cotter, 2006). In addition, excavations carried out in 2008 just to the west of the modern line of Woolcomber Street uncovered kerbstone (TR 34 SW 1218) of a likely medieval date which may be associated with the former site of St James Street (Hood & Michaels, 2008).

8.12 - Alongside the evidence for former routeways, numerous excavations on the eastern side of the Dour suggest that the area was quite heavily developed during the medieval period. The 1996 Townwall Street excavations revealed occupation in the area beginning in the mid 12th century, with intensive colonisation of the area by the late 12th century (c. 1175) (Parfitt, Corke, & Cotter, 2006). Eight plots were identified across the site, each being occupied by a succession of timber structures (TR 34 SW 1477) with dates spanning the 12th to 13th century. The vast quantity of finds that were recovered in association with these timber buildings adds a great deal to our understanding about the lives of the people who occupied them. The layers that overlay most of the floors contained a variety of domestic rubbish and

household items, including broken pottery, fish and animal bones, lamps and iron knives, hones and gaming pieces. This clearly indicates that the bulk of the excavated buildings were domestic dwellings. Finds such as quern stones, bone and antler waste, spindle whorls and glass slickstones suggest, however, that various cottage crafts were also carried out at the site. Perhaps the most important industrial activity carried out on the site was connected with the processing of fish - something to be expected from a site so close to the shoreline. By the later 13th century many of these timber structures had been either abandoned or replaced by more substantial stone buildings and accompanying stone boundary walls (TR 23 SW 1503) which appear to have been occupied until the middle of the 16th century. The general change from timber to stone (or at least stone footed) houses is a well established phenomenon in many medieval towns in the 13th century, and it is likely that the plots which were abandoned in this period formed gardens for these new and larger 13th century dwellings.

8.13 - Similar discoveries have been made across the St James area of the town in subsequent excavations. For example, the 2015 to 2016 excavations, which consisted of a series of watching briefs, evaluation trenches and larger trenches, revealed numerous medieval buildings, the earliest of which were dated to the 11th century (TR 34 SW 2152) (Parfitt, 2018). Occupation is again represented by timber and stone-built structures throughout the 12th century, right through to the 16th century with a marked increase in their number in the 13th century. Several of the plot boundaries identified during these excavations appear to have been established relatively early and were maintained throughout the centuries. Regular rebuilding of portions of the various walls appears to have been so frequent that often only small fragments of the primary structure could still be identified. Evaluation trenching carried out in 2008 also produced evidence of medieval activity in the St James area of the town (Hood & Michaels, 2008). Pits (TR 34 SW 1223), surfaces (TR 34 SW 1217) and stone-built structures (TR 34 SW 1215), all with a medieval date, were recorded within the trenches. It seems very clear from this evidence that from the 11th century onwards, in contrast to the preceding Roman and Saxon periods, development and occupation of the eastern side of the river Dour was extensive.

Upmarket Ward (Fig 8.2 Area 3)

8.14 - Towards the far eastern and north-eastern ends of the town centre, most of the archaeological investigations have been on a much smaller scale and the evidence for the medieval occupation of the town becomes more limited. Some observations were made during the construction of the Leisure Centre at the junction between Woolcomber Street and Townwall Street. The presence of medieval deposits was noted here including medieval walling and a 14th century cellar (TR 34 SW 591) (Council for Kentish Archaeology, 1971). The approximate line of Woolcomber Street is early, and it is clearly visible as a main thoroughfare at the eastern end of the town on several early post-medieval maps. Routeways following the modern lines of Laureston Place, Ashen Tree Lane and the southern end of

Maison Dieu Road running north from Woolcomber Street are also apparent on the maps. Evidence supporting the theory that these roads are medieval in date was found in excavations carried out at St Mary's Primary School in 2001 (CAT, 2001). The discoveries uncovered included pits, ditches, terraces, squared chalk blocks, greensand lumps and a few burnt daub fragments, including one bearing wattle marks (TR 34 SW 656). The pits seem to have been used for dumping domestic rubbish in the form of pottery, animal bone, fish bone and marine shell, together with some blacksmithing waste and discarded ironwork, all of a 12th to 14th century date. The discovery of medieval features well outside the principal medieval occupation area is of considerable interest and may point to another medieval suburb which had been abandoned by the early post-medieval period. It has been suggested that the area was used as a market by the side of the busy medieval road up to the Castle (Parfitt, 2010). It is not unusual for a medieval town to have several markets, and the likelihood increases when there is a marked increase in the population. The traffic passing this postulated market would have increased substantially when the large numbers of masons, carpenters and others from the building trades were drawn to the town to complete work on the Castle. Whatever the reason for the medieval development in this area, it shows that Dover did expand during the medieval period. It may also suggest fluctuations in the population size associated with the various development schemes in Dover throughout the period. The size of the town would have reflected this, with some of these areas subsequently being abandoned by the post-medieval period when these development projects had ceased. It seems likely that further evidence for medieval occupation remains to be discovered in this and other peripheral areas of Dover.

Figure 8.3 – Extract from William Eldred's plan of the St. James area of the town dated c.1638. Image courtesy of Canterbury Cathedral Archives (DCb-D-T-D-11)

Medieval Shoreline (Fig 8.2 Area 4)

8.15 – For any discussion about the layout and development of Dover town, a key consideration must be the position of the shoreline. The main medieval harbour appears to have emerged in the late 15th century when the size of ships increased and required fixed harbour installations i.e. not just beaching. This late medieval harbour was located to the south-west, away from the core urban area (discussed in detail below). Despite this, many of the buildings and routeways in the heart of the town were nonetheless very close to the sea. On a part of the town wall observed during excavations along Townwall Street (TR 34 SW 1152), there was clear evidence demonstrating that the sea once washed the foot of the curtain (Parfitt, 1993). The lower facing stones were water worn and evidence of at least three breaches of the wall by the sea was seen. The Boldware Gate (TR 34 SW 192) entrance passage had been greatly enlarged by wave attack, immediately to the east was a second breach and another was recorded some 50m west of the Boldware Gate. It seems probable that the wall was constructed on the original medieval foreshore, below the high-water mark. Towards the eastern side of the town several early post-medieval maps show that a lagoon, known as East Brook Water, occupied the shoreline immediately abutting the settlement. The precise size and form of this lagoon is unknown, but the mapping suggests that it was partially fed by the river Dour and was perhaps originally 500m in length and up to 100m wide. Evidence for the lagoon was uncovered during the Townwall Street excavations (Parfitt, Corke, & Cotter, 2006). An irregular steep-sided cut running roughly east-west across the southern side of the site, represented a length of low cliff which must once have defined the northern edge of this major coastal feature (TR 34 SW 1511). It appears to date to the later medieval period and to have removed all earlier medieval buildings and deposits. Eventually East Brook Water silted up and there is evidence for its partial deliberate infilling dating to the late 16th and early 17th centuries. Some of the lagoon initially remained open and was converted for use as a defensive feature but by the later post-medieval period (c. 1850) this area had been consolidated for development. In contrast, the shoreline on the western side of the river Dour appears to have remained little changed from its position in the later Anglo-Saxon period. Its approximate line is marked by the sharp change in direction that the river makes beneath the modern line of Townwall Street.

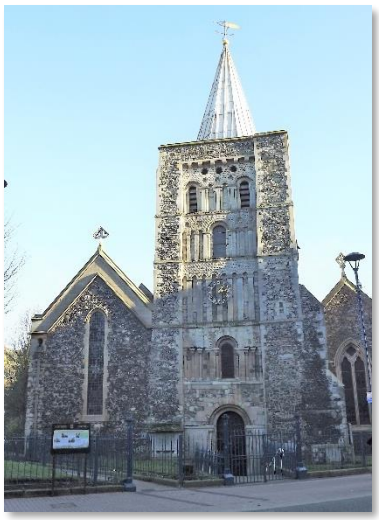

Figure 8.4 – St Mary's Church

Figure 8.5 – St Edmonds Chapel

Churches and religious buildings (Fig 8.2 Area 5)

8.16 –The growth of the population and Dover's situation on the pilgrimage route between Canterbury and Rome were two important factors in the number of churches constructed in the town throughout this period. The church was the single most important institution in medieval life, its influence pervading almost every aspect of people's lives. The churches themselves were correspondingly imposing and are often the principal surviving features within modern towns of medieval origins. Many of the medieval churches of Dover still survive in some form today. The parish church of St Mary (TR 34 SW 868), a Grade II* Listed Building located in the centre of the town, has numerous medieval elements surviving within its fabric despite being largely re-built in the 19th century. The west tower is of early 12th century date. Three western bays of the Norman nave arcades were built at the same time as well as two others of a similar period but built in a different style. In addition, one original 13th century window has been reset in the south wall of the chancel. Another good example of a medieval church in the town centre is St James's Church located just below Castle Hill (TR 34 SW 845). This church, like St Mary's Church, was heavily altered in the 19th century but was originally constructed in the 12th century. It has a Norman side elevation, built of flints and with a blocked entrance filled with Norman fragments. It also has a 14th century addition on the south side of the nave. The church was bombed during the Second

Figure 8.6 – Ruins of St Martin-Le-Grand

Figure 8.7 – Side elevation of St James' Church

World War though the ruins were preserved and survive well with a considerable amount of upstanding medieval fabric. Towards the northern end of the town centre, the small chapel of St Edmund is also medieval (TR 34 SW 893). This building was originally constructed as a chapel for the cemetery of the poor and was used as a pilgrim's chapel. It was consecrated in 1253 but contains structural features that pre-date this with evidence of 12th century fabric in its south and west walls. Close to this small chapel, approximately 100m to the west, are several other upstanding medieval buildings and features which originally formed part of Dover Priory (TR 34 SW 22). The Priory of St. Mary the Virgin and St. Martin of the New Work was founded in 1131, originally for Augustinian Canons although these were replaced by Benedictines in 1136. It was dissolved in 1535 and then used as farm buildings until the 19th century when it was converted into a school. Many of the original medieval priory buildings remain within the complex and include the refectory (TR 34 SW 711), the strangers hall (which was converted into a chapel) (TR 34 SW 705), parts of the cloisters (TR 34 SW 901) and the gatehouse (TR 34 SW 850), all of which have been restored and are now in use by Dover College. The church associated with this monastery has long since been demolished but parts of its transepts and nave (TR 34 SW 1328), which were uncovered during building work on Saxon and Norman Street in the 19th century, show that it was large with an east-west length of c. 80m and north-south width of c. 60m (Puckle, 1893).

8.17 – Some of Dover's medieval churches are today visible but only in a ruinous state. The church of St Martin-Le-Grand (TR 34 SW 36) which overlies an earlier Anglo-Saxon building within the walls of the Roman Shore Fort, was constructed in the 12th century and used as the parish church until the 16th century. The exposed medieval remains consist of a set of low walls and foundations which relate to the south-west corner of the church (Philp, 2002). Another example of a medieval church that exists in a more ruinous state is the Templars Church (TR 34 SW 31) located west of the town within the post-medieval fortifications of the Western Heights. This small chapel, of which the flint and mortar core of the foundations and a small area of stone facing survive, had a circular nave 10.6m in diameter and a rectangular chancel 7.6m in length and 4.3m wide. Its unusual form has led to suggestions that it was constructed by the Knights Templars, a group of whom are believed to have left Dover before 1185 (CAT, 2008). The final church known to have existed within Dover's town centre in the medieval period is the church of St Peter (TR 34 SW 1893) which was (until its demolition) located on the north side of Market Square. Several early post-medieval maps depict a church in this location and positive evidence for its existence was revealed during the construction of the Lloyds Bank in the early 20th century (The Dover Express, 1905). The features and finds uncovered included architectural fragments, tombs and human remains. The lower chalk blocks of the foundations were discovered alongside a 'perfect' Norman capital, which is likely to have originally topped one of the columns of the nave. Half of a small chalk coffin was also found as well as a burial vault containing a large quantity of human remains.

Figure 8.8 - Extract from 1641 map showing St Mary's Church. Image courtesy of Dover Harbour Board

8.18 - Many of these churches are visible on early post-medieval plans of Dover. For example, St James's church is clearly depicted on a map of the town produced in 1638 by William Eldred, and a slightly later plan (1641) by the same author also shows St Mary's Church. A 16th century Illustration of Dover harbour depicts three churches in the town centre which may reasonably be interpreted as the churches of St Mary, St Peter, and St Martin-le-Grand. Overall, it seems that Dover was well provided with religious buildings throughout the medieval period, with some of these surviving substantially intact and others partially preserved beneath or within the modern town.

Figure 8.9 - Extract from Eldred 1638 Map showing St James's Church. Canterbury Cathedral Archives (DCb-D-T-D-11)

Figure 8.10 - Extract from Thompsons c.1538 illustration showing three Churches in Dover Town Centre. Image Courtesy of Dover Museum (F60101-26)

The Maison Dieu (Fig. 8.2 Area 6)

Figure 8.11 – Dover town hall – The Maison Dieu

8.19 - In addition to the church, another building that would have been found in most medieval towns was the hospital. The role of a medieval hospital differs markedly from that of a modern hospital. They were religious institutions often associated with churches or monasteries and sometimes run by monks and nuns. They were primarily for lepers or the poor, aged and infirm but they were also erected to provide hospitality for pilgrims and other travellers. A medieval hospital (St Bartholomew's) is known to have existed at Buckland, on the road going north out of Dover but within the medieval town of Dover itself was the Maison Dieu (TR 34 SW 855), which is located at the southern end of the modern High Street. This was founded by Hubert de Burgh (c. 1160 to 1243), first Earl of Kent, Constable of Dover, and Chief Justice of England, in the early decades of the 13th century. Upon his death patronage passed to King Henry III and subsequent kings. The scale and status of this important medieval building is apparent from the numerous documentary sources and the remaining medieval fabric which is of a high quality. This, in combination with its royal patronage, is likely a reflection of the fact that it lies on an important pilgrimage route to Canterbury. Though it was restored and substantially extended in the 19th century, much of the medieval fabric remains including the chapel (c. 1227), the Stone Hall and the tower which are believed to date from between 1250 and 1350 (CAT, 2020). As was the case for many of the medieval hospitals, the Maison Dieu was suppressed in the dissolution and was used as victualling stores for much of the post-medieval period (1544 to 1834).

The Town Wall

Figure 8.12 - Extract from Eldred's Map 1641 of Dover showing the Town Wall and gates. Image Courtesy of Dover Harbour Board.

8.20 - The core of medieval Dover was afforded the protection of a substantial town wall for at least part of the medieval period. Fortifications surrounding or within a medieval town were a common phenomenon in England with many towns having at least one defensive tower. The importance of Dover as harbour, trading community and royal base

Figure 8.13 - Extract from Thompsons view of Dover Harbour in c.1538 showing remains of the town wall and Butchery Gate. Image Courtesy of Dover Museum (F60101-26)

(both for the fleet and the monarch at the Castle) would have meant that Dover was perhaps more heavily defended than the average medieval settlement. There is substantial documentary evidence to support this with numerous references to a town wall, largely detailing the repairs made to it. Despite this, there has been much speculation about the form and location of these defences, particularly on the north and north-eastern side of the town, where, despite several excavations in the area, it has never been revealed. There is much more evidence for the location of the wall on the south and south-western sides of the town. Early post-medieval mapping used in combination with the modern street names gives a good indication of the former location of many of the gates. For example, the line of the wall and the locations of Snar Gate (TR 34 SW 193), Cow Gate (TR 34 SW 195), Biggin Gate (TR 34 SW 197) and a fourth gate over the seaward end of the river Dour (likely Boldware Gate TR 34 SW 192) are all clearly visible on a map of the town produced by William Eldred in 1641. Both Snar Gate and Cow Gate align nicely with the eastern ends of the modern Snargate Street and Cowgate Hill. In addition, archaeological investigations associated with the A20 road and sewer scheme revealed significant traces of Dover's medieval town wall (TR 34 SW 1152) (CAT, 2001). In several places between the river Dour and the York Street roundabout the 2m to 3m thick curtain wall survived just below the pavement level and still stood to a height of almost 5m. Parts of Boldware Gate and Butchery Gate (TR 34 SW 191) were also revealed, confirming their depictions on the historic mapping.

Dover Castle (Fig. 8.2 Area 7)

8.21 - The dominant medieval feature at Dover is the Castle, located away from the main settlement on top of the hill east of the town (TR 34 SW 5). Numerous documentary sources trace the development of this defensive complex and aside from the features noted in earlier chapters (Roman lighthouse, Saxon church etc.) the earliest part of the extant castle is the great tower/keep (TR 34 SW 877). This large and imposing building was constructed under King Henry II between 1180 and 1189 to provide a secure fortress and royal accommodation. The original construction, of Kent ragstone with Caen stone dressings, consisted of a roughly square building c. 30m^2 with two principal rooms on each floor and an imposing forebuilding containing a chapel (Coad, 1997). Much of the medieval fabric, including

the palatial apartments in the keep, is still recognisable despite being re-fashioned in the 1620s and heavily converted into ordnance stores in the later post-medieval period (English Heritage, 2014). Building work at the castle continued under King John and Henry III when the inner and outer curtain walls with their associated gates and towers were completed. These largely date to the first two decades of the 13th century and are among the earliest work to be completed at the castle. The defensive strength was enhanced and extended throughout the first half of the 13th century following a long siege by Prince Louis of France in 1216 to 1217. By 1250 the medieval defences, including various banks and ditches, had assumed the extent and shape they retain today. In addition to the surviving medieval features, historical documentation provides evidence of several lost structures (such as the windmill) and archaeological excavations have revealed the remains of numerous demolished medieval features. These include parts of the former middle bailey barbican (TR 34 SW 2494) that were uncovered by excavations carried out in the 1960s and the footings of multiple medieval buildings within the walls of the inner bailey (TR 34 SW 2236), again discovered in the 1960s. The extensive medieval remains overlooking Dover are of international significance. They demonstrate an unusually high degree of technical innovation and engineering skill and Dover Castle is unusual in surviving in such a complete state. They also represent the first concentric castle in western Europe with the first known residential gatehouse – a precursor to those that we see in Edward's Welsh Castles. Its importance is further enhanced by its royal connections and the survival of detailed documentary sources relating to its construction. It also has the potential to reveal further archaeological information: although many parts of the castle were subject to extensive alteration throughout the post medieval period, medieval horizons may survive sealed beneath later earthworks. This is particularly true for the southern half of the site as the plans and documentary evidence suggest that intramural development was focussed in the northern half of the castle, while much of the southern half appears to have been maintained as open ground.

The Harbour (Fig 8.14)

8.22 - The longevity and success of Dover may be largely attributed to its key location close to the continent and its suitability and facilities for harbouring ships. The tidal basin of the river Dour used by the Roman and Saxon occupants of the town, had silted up by the 11th century meaning that the medieval harbour must have been located elsewhere along the shoreline. Little is known about the harbour facilities in the early centuries of the medieval period but there is clear evidence from both documents and the Townwall Street/St James area excavations, that fishing was an important part of life in the town (Parfitt, Corke & Cotter, 2006). It is therefore possible that the town's fishing boats would have been hauled up out of the water onto the beach in a stade-like arrangement as seen at other coastal towns such as Deal, Folkestone and Hastings. There is also a mention in Domesday of a mill at the entrance to the harbour at Dover that might suggest some sort of facility was in

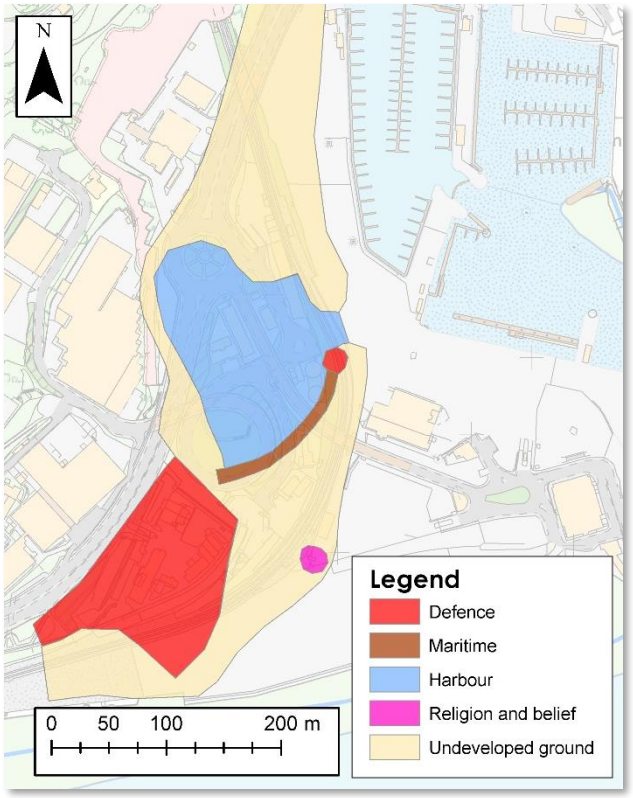

Figure 8.14 – Possible layout of the western harbour by c.1500

existence in the earlier medieval period, but its form and location remains uncertain (Domesday Book; a Complete Translation, 2003). Our understanding of the harbour facilities at Dover only becomes clearer in the late 15th and 16th centuries. During these centuries, a series of substantial new harbour installations were constructed to enable the larger boats that were beginning to emerge at this time to be moored in Dover. The early harbour was created in a small bay at the base of Archcliffe Point. There is very little information about this early stage of development, but the harbour appears in its earliest form to have comprised a small basin (named 'Paradise') protected by a pier or strong bank. The first accounts of the 'Wyke' (the name given to this early harbour) date to 1510 and refer to a 'pere' (pier) and to mason's work completed on an existing stone structure there. Exactly what this stone structure was is unclear, but it is possible that the reference relates to Archcliffe Chapel (TR 34 SW 1434), also known as Our Lady of Pity Chapel, which is thought to have been medieval in date. It is shown on numerous early post-medieval maps on the south-eastern side of Archcliffe point near the shoreline. Another possible candidate for this stone structure is a watch tower recorded on Archcliffe Point (TR 34 SW 634). This has a possible 14th century origin - a reference, dated to 1370, details the construction of a rampart and ditch on the headland. This was ordered by Edward III to defend a pre-existing watchtower, probably built sometime during the Hundred Years War, though no above ground or archaeological evidence for this tower has ever been revealed. In addition to a watch tower and chapel, numerous historic cartographic sources depict some form of tower at the head of the pier protecting the harbour (at the entrance to Paradise Pent). This may have been contemporary with the early pier and there are some sources which suggest the presence of second tower constructed on the pier at a slightly later date, though the location and nature of this second tower (if it existed at all) is unknown. Whatever this early reference describes, it is clear that by the end of the medieval period several features existed in this area and a small, basic harbour was in use. Dover is a place where harbour construction was always going to be problematic due to the currents and eddies that converge in this part of the Channel. Indeed, this early harbour did not last and in order to rectify ongoing problems with

the silting and choking of the harbour mouth, substantial new building programmes were undertaken throughout the 16th century (Johnstone, 1994). This included state intervention and resources deployed at Dover on a massive and unprecedented scale. This early post-medieval work modified and enhanced the medieval construction and laid the foundations for a substantial harbour that continued in use throughout the post-medieval period and defined the footprint of the modern harbour seen today. An important source for the study of both the harbour and the castle at Dover is *'The History of The Kings Works'* which was a nation-wide survey produced in six volumes which provides a detailed analysis of many of the later medieval developments in Dover.

8.23 - Overall the evidence for the expansion and development of medieval Dover is extensive, including both upstanding buildings and extensive archaeological evidence. It appears to have occupied the flat ground between the eastern and western headlands as far as the modern site of Castle Street and continued northwards either side of the major routeways up to the Mason Dieu and Priory. This development was in a variety of forms and comprised both small-scale timber domestic dwellings and larger masonry structures that included ecclesiastical buildings, hospitals, defensive structures and houses. Combined with the extensive documentary evidence for this period, a picture of how the Anglo-Saxon settlement, centred around the ruinous Roman Shore Fort, gradually transformed into a large and important walled town and port becomes even clearer. In addition to the expansion of the town in the valley, this period saw extensive development on Castle Hill on the eastern side of the town. The construction of Dover Castle, which continued throughout this period, resulted in the creation of the first concentric castle which set out a template for castle design and which was emulated in many places across the country. Another important construction project which was underway late in the medieval period was the western harbour. The foundations which were laid in the late 15th and early 16th centuries went on to be developed and expanded throughout all subsequent periods and was the starting point for the harbour development that we see today.

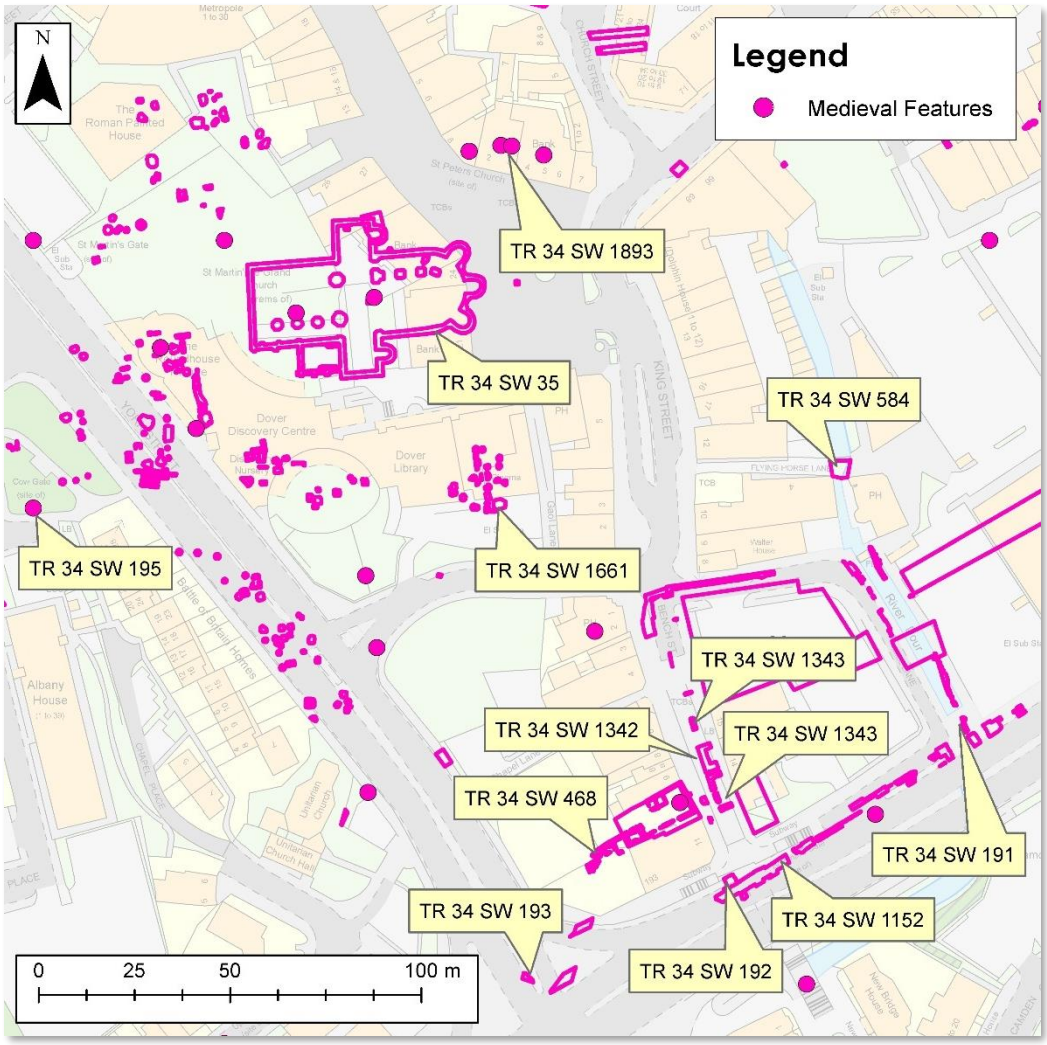

Figure 8.15 - Features mentioned in the test: western portion of the town centre

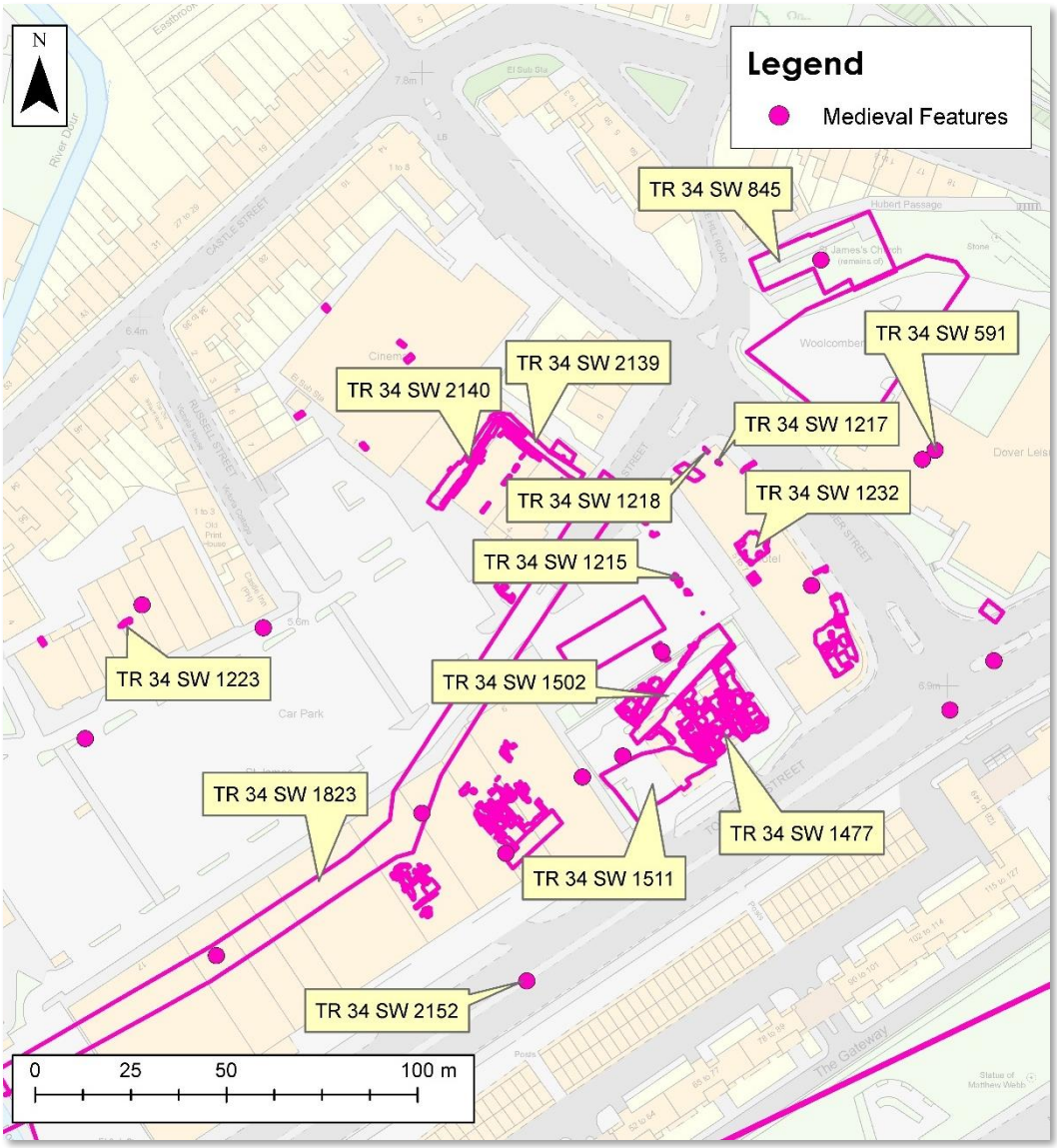

Figure 8.16 - Features mentioned in the text: eastern portion of the town centre

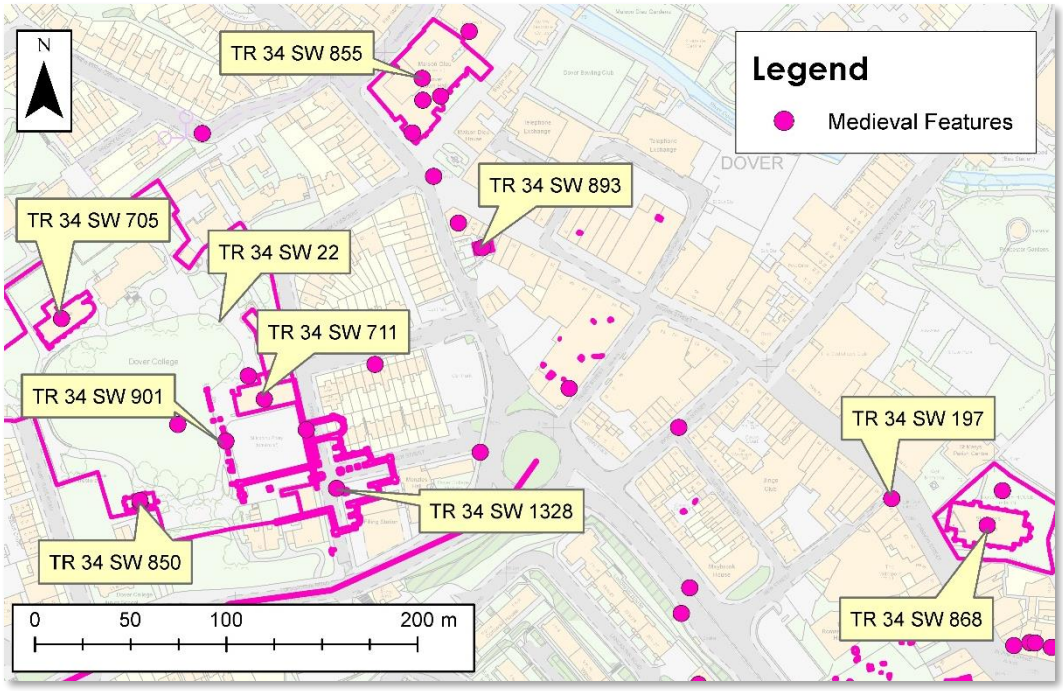

Figure 8.17 - Features mentioned in the text: northern portion of the town

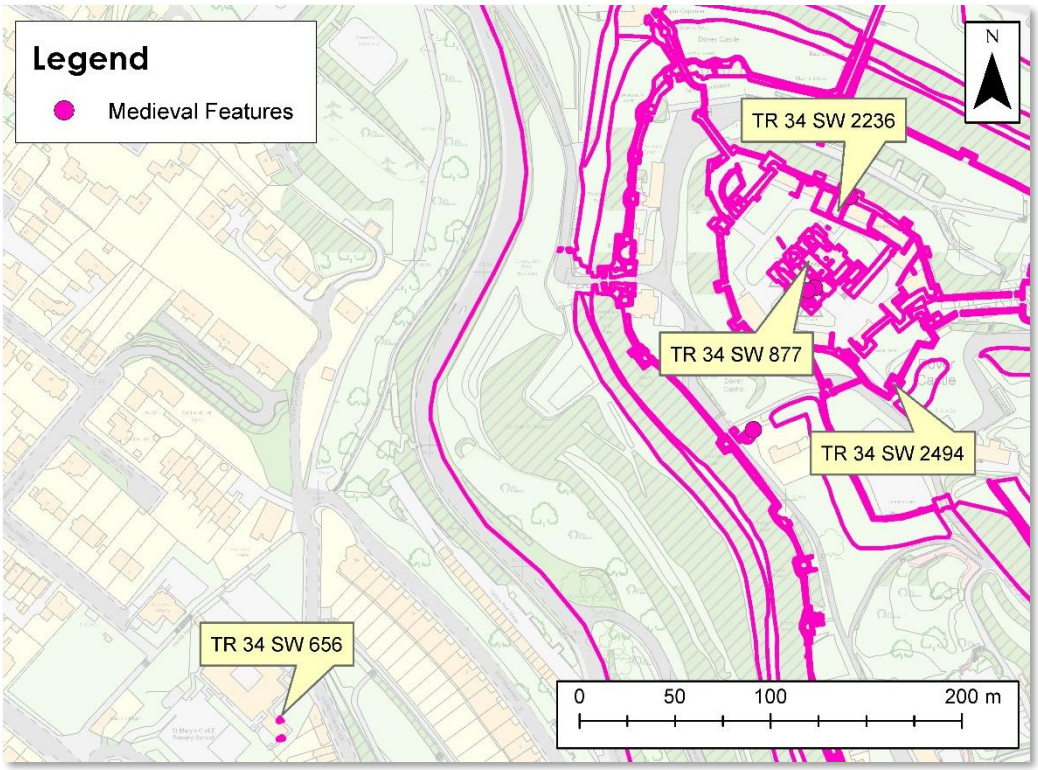

Figure 8.18 - Features mentioned in the text: Castle Hill

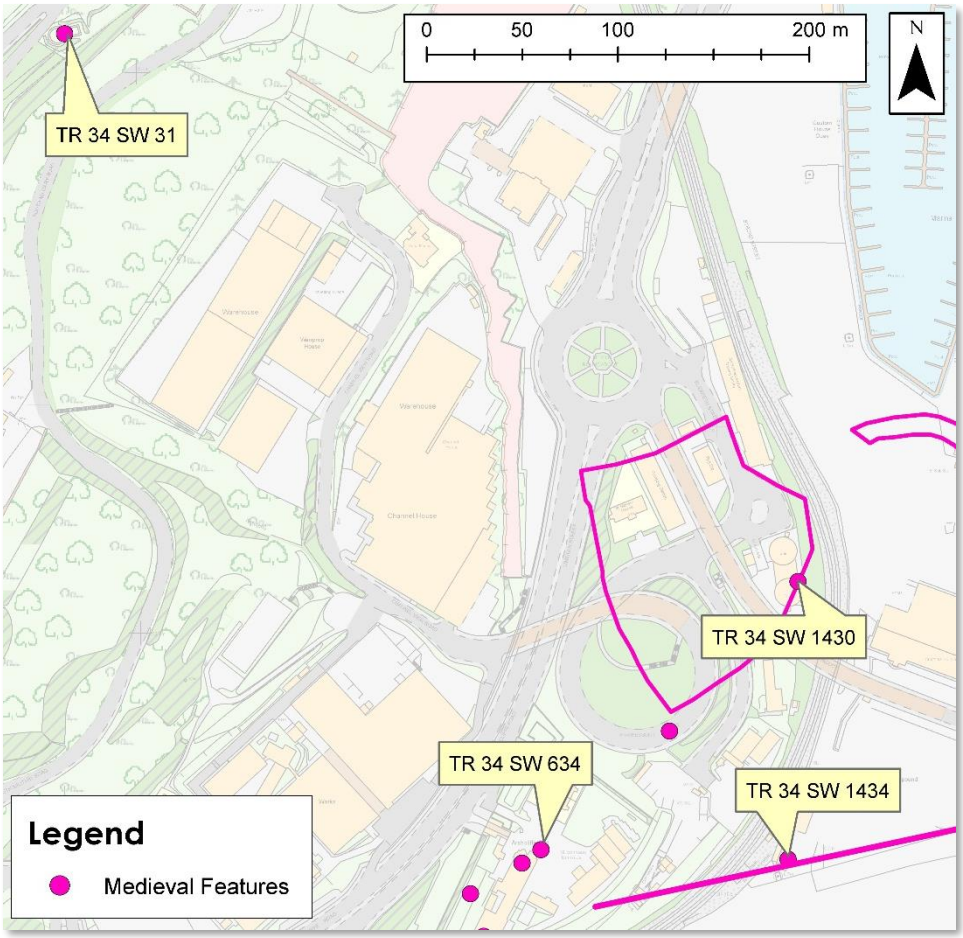

Figure 8.19 – Features mentioned in the text: Western Docks

Further Reading

8.24 - A wide variety of source material is available for the study of Dover Castle. Those consulted for this text include historic maps, books, journals, articles and unpublished reports. These discuss the history and layout of the various medieval buildings and features, as well as the results of archaeological investigations in and around the fortifications. They include:

- Coad, J. (1997). *Dover Castle .* English Heritage
- Colvin, H. M. (1982). History of The Kings Works 1485-1660. Stationary Office Books.
- Cook, A. M., Mynard, D. C., & Rigold, S. (1969). Excavations at Dover Castle, Principally in the Inner Bailey. *Journal of the British Archaeological Association , 32*, pp. 54-104.
- English Heritage. (2011). *Arthur's Hall, Dover Castle, Kent, Analysis of the building, historic building recording.* Unpublished Document.
- English Heritage. (2014). *Dover Castle Conservation Management Plan Volume 1: Main Text. English Heritage.* Unpublished Document .
- English Heritage. (2014). *Dover Castle Conservation Management Plan Volume 2: Gazetteer.* English Heritage. Unpublished Document.
- Rigold, S. E. (1967). Excavations at Dover Castle . *Journal of the British Archaeological Association* , 87-101

Some of the largest archaeological projects that have revealed medieval remains in Dover are those associated with the A20 road and sewer scheme and those located in the St James area. The largest of the St James excavations was carried out on Townwall Street in 1996 and produced a great deal of medieval material. This has been published and is a very useful book for the study of medieval Dover in general. The A20 works have been published in less detail but many of the medieval discoveries have been summarised in annual reviews. The large investigations undertaken in the town centre by KARU also produced medieval material, but this is awaiting detailed publication. Summaries of information are however available in the *Kent Archaeological Reviews*.

- Mynott, E. (1981). The Zion Chapel Site. *Kent Archaeological Review,* Vol. 66
- Parfitt, K., (1992). A20/Dover Sewers Project. *Canterbury's Archaeology 1991-1992*, 11-16
- Parfitt, K. (1993). A20/ Dover Sewers Project. *Canterbury's Archaeology 1992-1993,* 13-18
- Parfitt, K., Corke, B. & Cotter, J. (2006). *Townwall Street, Dover: Excavations 1996.* Canterbury Archaeological Trust

In addition to the archaeological works, a number of publications have contributed to our knowledge of the visible and upstanding medieval remains in the town:

- Godfrey, W. H. (1929). Some Medieval Hospitals of East Kent. *Archaeological Journal, Vol 86,* pp 99-110.
- Knocker, E (1884) The Church of St James, Dover. *Journal of the British Archaeological Association, Vol 40*. pp 394-399
- Thompson, M. W. (1986). Associated Monasteries and Castles in the Middle Ages: A tentative List. *Archaeological Journal Vol 143,* pp 305-321

Many of these are Listed Buildings or Scheduled Monuments and descriptions are included in the National Heritage List for England (NHLE) which is available online:

- https://historicengland.org.uk/listing/the-list/

There are few reliable medieval maps of Dover, but a substantial number were produced in the 16th century. These mainly show early post-medieval harbour development but they are also useful for the study of the town at the end of the medieval period. They are located at a variety of locations including the British Library, Dover Museum, Dover Harbour Board, Canterbury Cathedral Archives and Dover Castle archives. Some parts of these collections have been digitized and are available online for example:

- http://www.bl.uk/onlinegallery/onlineex/

The Kent Historic Environment Record is compiled by Kent County Council and is the main record of the historic environment in the county. It includes information about archaeological discoveries and the excavations themselves, as well as sources for further reading. It is available online

- https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

9 - POST-MEDIEVAL (C. AD 1500 TO 1900)

Introduction and Summary of Potential

Figure 9.1 – Photograph of St James' Street 1893. Image courtesy of Dover Museum d00666

9.1 - The changes taking place across the whole of Britain, and indeed western Europe, during the post-medieval period had a profound effect on the town and port of Dover. The scale of development was unprecedented and some of the smaller settlements that surrounded it in the medieval period were absorbed, becoming suburbs of this much larger town. Domestic, commercial and industrial development expanded exponentially and the creation of jobs in new industries led to a large increase in the population of the town. This expansion was aided in the later years of the post-medieval period by the railway which arrived in the town in 1844 and brought a wave of new tourists to Dover.

9.2 - The town's growth was accompanied by the huge increase in the number of defensive structures in and around it. Many were added from the 16th century onwards, particularly surrounding the harbour, and several of the pre-existing medieval defences were altered and upgraded in response to the perceived invasion threats and advances in weapons technology. Most notable among the defences constructed in this period are the extensive series of fortifications at the Western Heights that largely date to the late 18th and 19th centuries. The harbour too underwent several schemes of alteration which allowed for an increase in cross channel traffic. A series of modifications were made to the western docks in the 16th and 17th centuries, the footprints of which have remained little altered in the centuries since, and by the end of the 19th century work was well underway on the larger outer harbour.

9.3 – Large parts of the post-medieval development of Dover are still visible today. Dover has several Conservation Areas within which are a hundred Listed structures (many of these listings refer to multiple individual buildings) that reflect the continuity and quality of much of this development. In areas that have seen more recent development after slum clearance or war damage, such as the St James area, the pier district and Snargate Street, archaeological investigation has provided information about the buildings which once occupied these areas and the lives of the people who lived in them.

9.4 - The expansion of both the town and the harbour facilities at Dover was greater in the post-medieval period than in any period preceding it and this development has had the biggest impact on the current townscape, with many areas of the town remaining relatively unchanged during the 20th century. This expansion, which was also seen in many other towns across the country, was accompanied a vast increase in the size of the population. Between 1801 and 1901 for example, the population of the town increased by over 400 percent (though the possible inclusion of soldiers and sailors in the later census may have skewed the figures slightly) (Page, 1932). Suburban development spread northwards, eastwards and westwards from the earlier post-medieval core of the town which had been centred around the shoreline. Though this was indeed a period of significant expansion, it was outstripped elsewhere, such that in terms of size ranking (compared with other towns in England) Dover fell down the table. In the 17th and 18th centuries Dover probably ranked in the top 25 towns in the country in terms of population, but by 1901 had dropped outside the top 75, highlighting the fact that the rate of later post-medieval expansion varied across the whole of Britain. The increase in industrialisation, and improved communications in the later 18th and 19th centuries, also had a profound effect on the town, as well as being significant factors in encouraging population growth. Dover's key position at the closest point to the continent continued to drive change in the town and its role in providing a cross-channel service for trade, tourism and military activities led to the development of new, larger and more sophisticated harbour facilities. This proximity to the continent also led to the construction of numerous defensive structures in and around the town in response to various invasion threats. The scale of development throughout this period was too great to fully detail here but the most significant changes are reviewed below.

Evidence of expansion from historic mapping

9.5 - Our understanding of the development of Dover town and harbour is greatly enhanced in the post-medieval period by the increased number of documentary sources which become available. The wide variety of sources include maps, illustrations, historic directories, paintings, guidebooks by local historians and, by the later post-medieval period, photographs.

9.6 - For the study of the earlier post-medieval period, the historic maps are particularly useful and revealing. In the later part of the 16th century several plans were drawn detailing the various stages of harbour development. Many of these plans also include a depiction of the town, though they have a varied degree of detail and accuracy. A good example is a plan dating to 1581 drawn by Thomas Digges (Figure 9.2), who was one of the individuals most active in the design of the new harbour at Dover. On his plan, development seems to occupy much the same areas as in the medieval period: along the shoreline within the valley, on either side of the river Dour and surrounding Market Square with ribbon development leading north towards the Maison Dieu. The map is more illustrative than accurate, but it is useful as a general guide to the extent and positions of key features within the town.

Another useful source is a series of plans drawn by William Eldred in 1638 to 1640 (Figures 9.3 – 9.4). Here again the focus of the occupation is close to the shore and Market Square. The main difference between the 16th and 17th century plans is the area of occupation and development to the west of the town, leading up to and surrounding the harbour, in what was to become known as the Pier District.

Figure 9.2 - Extract from Thomas Digges plan of 1581 showing the extent of the development within the town.

Figure 9.3 - Extract from William Eldred's plan dating to 1738 showing the development in the St James' Area of Dover

Figure 9.4 - Extract from William Eldred's plan of the town dating to 1741 showing the development surrounding the new harbour

9.7 - The construction of a new harbour to the west of the town in the later medieval and early post-medieval periods, which initially consisted of a small harbour beneath Archcliffe point and behind a pier, (discussed in chapter 6 and in detail below) led to a change in the focus for new development in Dover. A new settlement area known as the 'Pier District' arose surrounding this western harbour, slightly isolated from the rest of the town with Snargate Street as the only link between the two. Small scale occupation with industrial activity in the form of limekilns along Snargate Street and development surrounding the harbour is shown on Digges' 16th century plans. This process seems to have intensified and by the middle of the 17th century a continuous built development is shown along Snargate Street and at least four streets lined with buildings on both sides are visible on the south and south-western side of the harbour on Eldred's plan. A plan dating to c. 1737 shows the area to the south and south-west of the harbour in more detail (Figure 9.5). Six streets are labelled: Round Tower Lane, Council House Street, Middle Row, Crane Street, Fisherman's Row and Hearts Row, all connected by a series of smaller unnamed lanes. By the time the c.1862 OS map was drawn (Figure 9.6) the small harbour around which these streets were situated had silted up. Round Tower Lane, Paradise Street, Hawkesbury Street and Oxenden Street alongside numerous unnamed lanes occupied the newly consolidated land. The area appears to have been densely inhabited, with large numbers of relatively small houses packed closely together. Dispersed amongst these houses were various businesses with a notable concentration of public houses. Snargate Street appears to be a commercial hub by the end of the 19th century and start of the 20th. A plan dating to 1905 (Figure 9.7) notes that at least half of the premises along the street contained a shop of some kind. Various trade directories also give a picture of the range and concentration of commercial properties in Dover, these include: Pigot's (1820s and 1830s), Kelly's

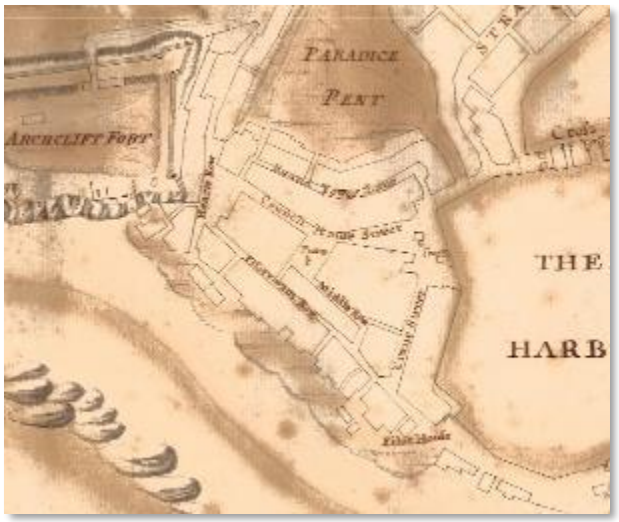

Figure 9.5 - Extract from Fouquet's plan of the town and harbour dating to 1737 showing detail of the streets in the Pier District

Figure 9.6 - Extract from the First Edition OS (c.1862) showing the development within the Pier District.

(1850s to 1930s), the Post Office Directory (1850s) and Melville (1850s). For example, Pigot's directory of 1824 shows that there were seven bakers on Snargate Street alone (Pigot, 1824). Several inns and taverns are also listed in the trade directories, as well as military outfitters, reading rooms, and a theatre, also confectioners, toy shops and perfumeries suggesting the street would have serviced local trade, passing tourist trade and also the requirements of soldiers garrisoned nearby. Though some post-medieval buildings do survive along Snargate Street, the majority of this densely occupied Pier District was lost during slum clearance and post war redevelopment. Today the character of the area is quite different and is mainly concerned with the modern harbour works. There is however some surviving evidence of this former commercial hub within the cliffs behind the modern Snargate Street. Here there are various tunnels for storage, cellaring and ovens cut into the cliff-face. These include the tunnels for Courts Wine Merchants whose premises also included terraces cut into the chalk cliffs where different varieties of grapes and exotic fruit were grown. There were also summerhouses, tea gardens and a folly in the shape of Dover Castle (TR 34 SW 1694). The tunnels, traces of the terraces and the ruined folly each survive (Dover Museum, 2020).

Figure 9.7 – Extract from the 1905 Dover fire insurance map showing the shops along Snargate Street.

9.8 - It seems that the expansion of the town during the early part of the post-medieval period was largely limited to this new Pier District. In the town itself, the 1737 plan shows a similar level of development as in 16th and 17th century plans, occupying either side of the river as far north as Market Square with ribbon development reaching the Maison Dieu. By the 19th century, however, there was an explosion of new development. The first edition OS map shows the area on the western side of the Dour between Cannon/Biggin Street and the lower slopes of the Western Heights as having been completely developed and this development also began to expand westwards around the back of the Western Heights along Folkestone Road. On the eastern side of the Dour, the lower slopes of Castle Hill had been developed with the creation of terraces along Victoria Park and Laureston Place. Further streets had been added north of the St James' area including Castle Street and Maison Dieu Road which ran parallel to Biggin/High Street. The area between these parallel streets had been almost entirely infilled and this infilling continued north of the Maison Dieu up to Bridge Street. The development only began

to thin out when it reached Buckland, nearly 2 km from the shoreline. By the end of the 19th century, the whole of the Dour Valley bottom, a large proportion of the slopes on either side of it and the dry valleys on the north-eastern and south-western sides of the town were occupied with housing. Some settlements surrounding the town, such as River and Whitfield, largely retained their rural character but development did spread along their main routeways into the town and they became included in its population figures. Overall Dover had more than doubled in size by the end of this period, swallowing whole parishes including Charlton, and separate settlements such as Buckland that became essentially suburbs of a much larger town.

9.9 - This 19th century development in the town also included replacements, additions and the alteration or widening of parts of the pre-existing medieval road network to accommodate the congested traffic. For example, Bench Street was widened in 1836 and Cannon Street in 1893 (Dover District Council, 2002). On these occasions the medieval and earlier post-medieval buildings were demolished and replaced. A new street through the eastern portion of the town, Castle Street, superseded the medieval arrangements and the awkward river crossing associated with St James' Street and linked the base of Castle Hill with Market Square. Overall, a good quantity of the 19th century development visible on historic mapping has been preserved in Dover, with large areas and whole streets such as Castle Street and High Street retaining many 19th century buildings.

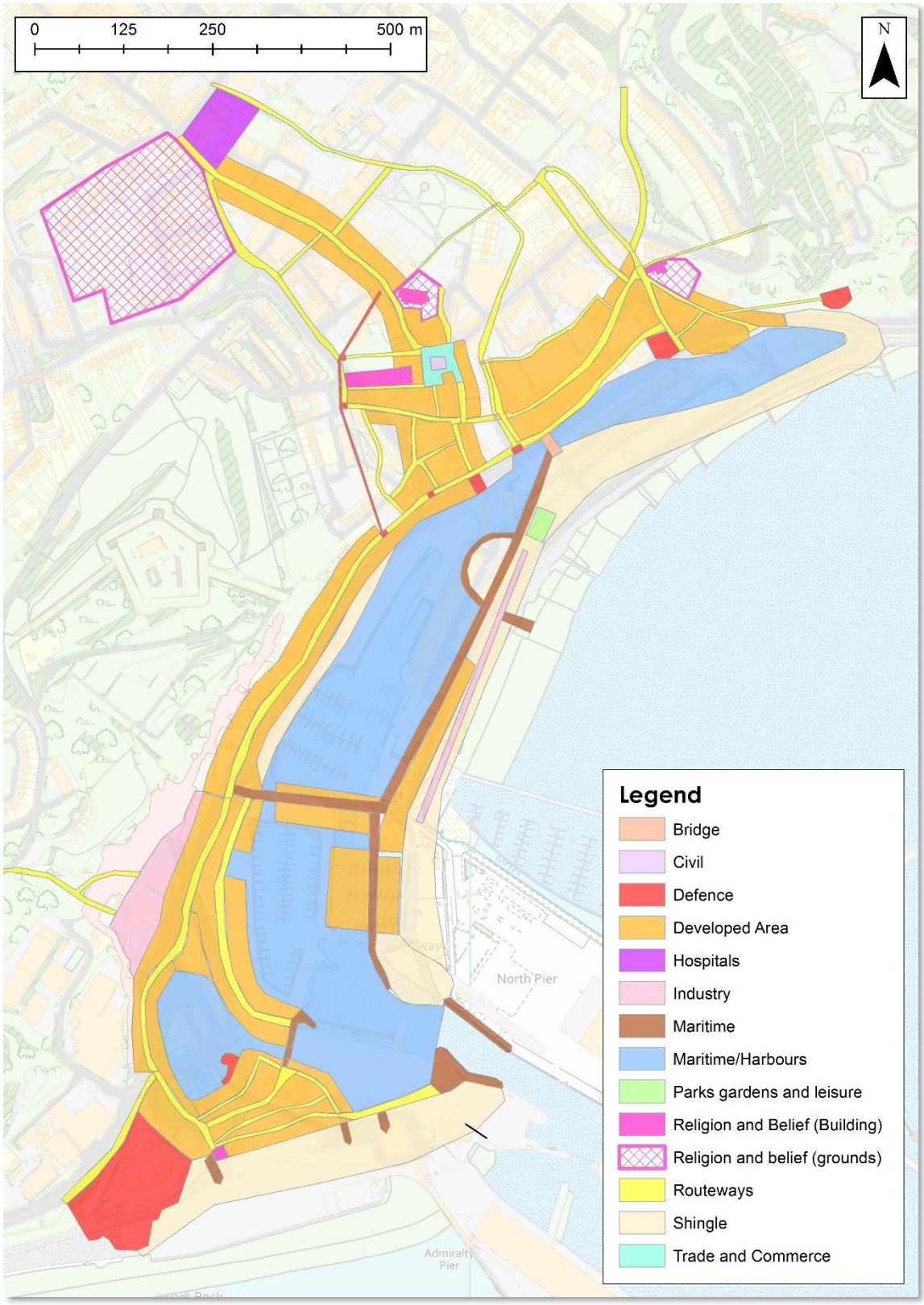

Figure 9.8 – Character of Dover town and harbour c.1640

Historic England

Kent County Council kent.gov.uk

CANTERBURY ARCHAEOLOGICAL TRUST LTD

DOVER DISTRICT COUNCIL

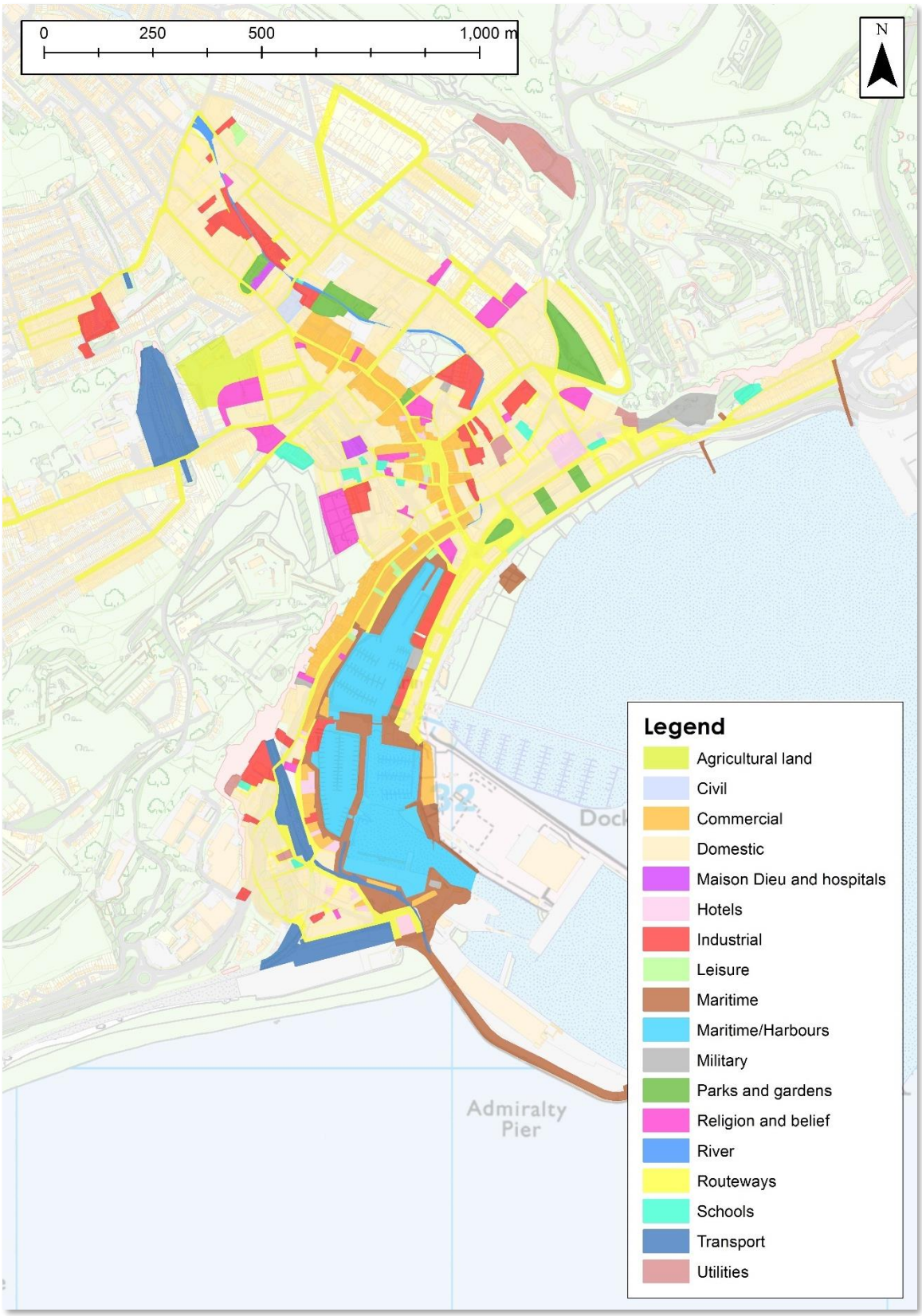

Figure 9.9 – Character of Dover town and harbour c.1868

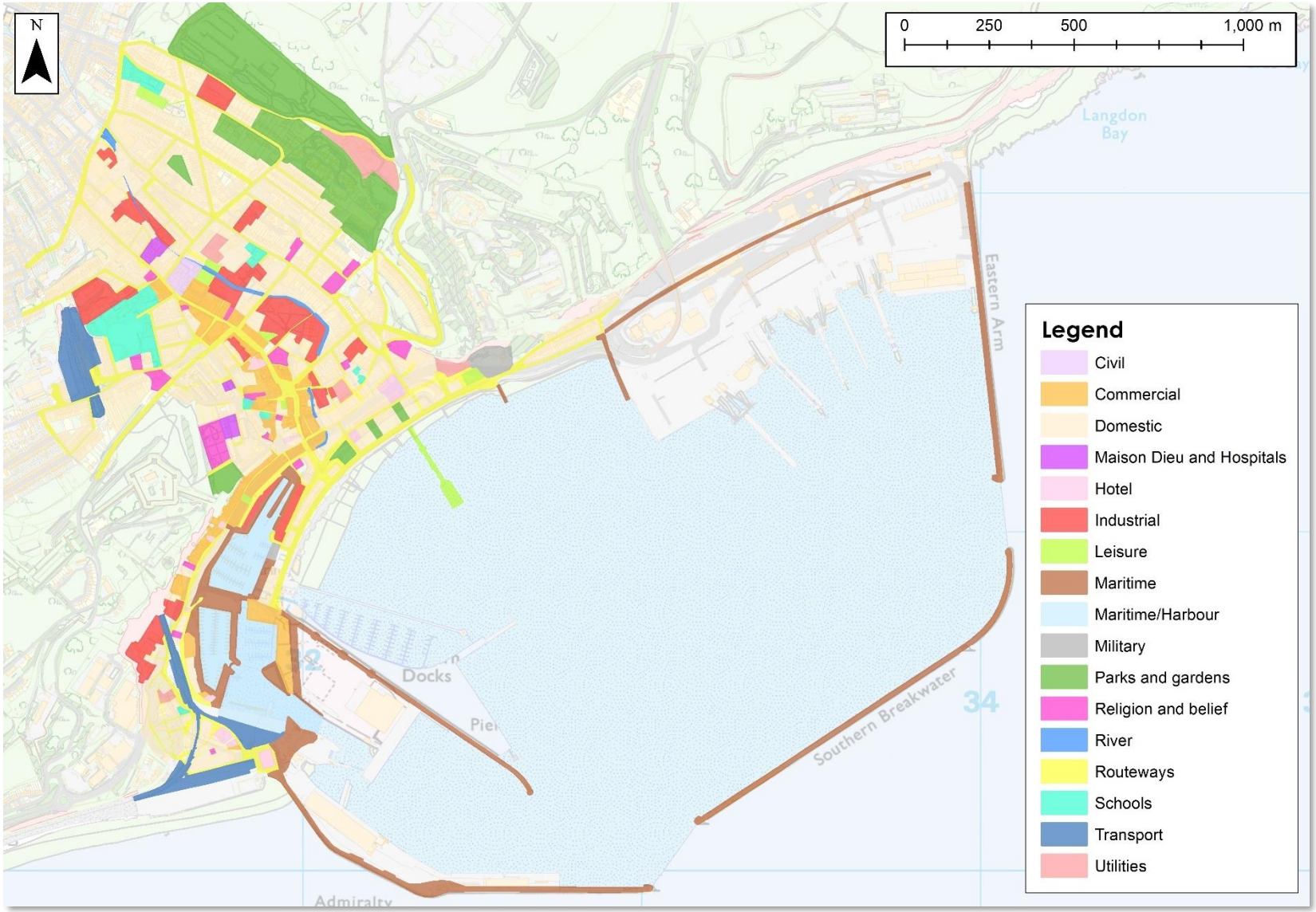

Figure 9.10 – Character of Dover town and harbour c.1908

Historic England

Kent County Council kent.gov.uk

CANTERBURY ARCHAEOLOGICAL TRUST LTD

DOVER DISTRICT COUNCIL

Archaeological evidence for post-medieval Dover

9.10 - In areas where modern or later post-medieval construction has swept away earlier development, archaeological investigation may be used in conjunction with the historic mapping and documentary sources to provide information about the buildings that once made up the town. A good example of this are the excavations which were undertaken in the St James' area ahead of the construction of a petrol station on Townwall Street. Here, in addition to numerous medieval buildings (discussed in the previous chapter) a series of earlier post-medieval buildings, dating to between 1550 and 1780, were recorded (TR 34 SW 1510). These buildings represent more intensive use of this area with at least seven separate buildings having been recorded, mainly consisting of chalk block or stone walls with foundations, some of which had several phases of development (Parfitt, Corke & Cotter, 2006). Most of these were probably domestic structures but at least one was industrial with a malt drying kiln (TR 34 SW 1516). Further excavations in 2015 were undertaken close by, within the former site of Russell Street Car Park. Here, again earlier post-medieval building remains were uncovered (TR 34 SW 2142) fronting what would have been St. James Street and Russell Place. Many of these had been replaced or incorporated within later buildings in either the same location or slightly offset, and some of the wall lines were composites, formed from several differently dated elements.

9.11 - On the western side of the river Dour, more features dating to the post-medieval period have been encountered during various archaeological investigations. Excavations near Queen Street and the former site of Last Lane, an area which was heavily re-developed in the later 20th century, revealed fragmentary remains of post-medieval walls, culverts, floors, the top of a single brick-lined vault and traces of the foundations of the 19th century Zion Chapel which stood on this site until the 1970s (TR 34 SW 578) (CAT, 1998). Less than 100m to the south of this, a series of rubble-filled 19th century cellars, post-medieval pits and tanks were located during works associated with the A20 road and sewer scheme (TR 34 SW 1337). These related to buildings which once fronted onto the north side of the north-eastern end of Snargate Street which were demolished in the 1970s to make way for road improvement (CAT, 2001). The remains of buildings fronting onto the eastern side of Bench Street before its 19th century widening were also discovered during the same scheme of works (TR 34 SW 1344). The remains consisted of a cellar and included 17th century Dutch bricks. To the north-west of these features, evaluation trenches dug by Oxford Archaeological Unit between 1988 and 1991 revealed numerous graves associated with pottery dating to the 17th and 18th centuries (TR 34 SW 1391) (Wilkinson, 1995). Further post-medieval graves were discovered during the town centre rescue excavations undertaken by the Kent Archaeological Rescue Unit in the 1970s and 1980s. These were concentrated in two sites; one located just to the north of Queen Street and another which was located at the former site of the

cemetery of the church of St Martin-Le-Grand, though detail on both groups is still awaiting publication.

9.12 - Some evidence of the post-medieval development along Snargate Street and parts of the Pier District has also been recorded archaeologically. For example, during an extended watching brief carried out along the south side of Snargate Street and Northampton Quay, post-medieval features were recorded including numerous walls, road surfaces, wells and vaults (TR 34 SW 1330) (CAT 2001). Several buildings along Snargate Street have been recently redeveloped, again revealing post-medieval remains. In 2010 and in 2014 the Canterbury Archaeological Trust carried out investigations on land formerly occupied by 149 to 156 Snargate Street. Overlying the beach shingle, deposits were found relating to dumped material, dating from the 17th or 18th century when the area was first developed as part of the expansion of Dover town (CAT, 2014). Remains of buildings were found, again of 17th or 18th century date, though truncated by later 19th century structures, one of which was probably the Invicta public house (TR 34 SW 986) (PCA, 2016). A watching brief undertaken at the former site of 137 Snargate Street revealed subterranean vaulted structures, cellars and walling most of which were brick or chalk block built (TR 34 SW 1439) (CAT, 1995). Further south the remains of 19th century cellar walls were located in two test pits that were excavated in connection with Southern Water's Waste Water Treatment Scheme (TR 34 SW 1474). One was located off Hawesbury Street and the other was located off Bulwark Street. The cellar uncovered in one of the test pits represents part of a building which once occupied the north-western side of the now demolished Council House Street (Wessex Archaeology, 1996).

9.13 - All this archaeological information confirms the conclusions made about the town through the study of historic mapping: that these areas were heavily developed and densely occupied throughout the post-medieval period. The archaeological discoveries do, however, add detail and evidence to our understanding of the nature of this development, that it was a mix of domestic, commercial and industrial use, that the buildings varied in size, and were constructed using a mix of chalk, stone and brick.

The Harbour

9.14 – After the silting of the estuarine harbour in the Anglo-Saxon period a new harbour was constructed in the last years of the 15th century, locally known as the 'Wyke' and located in a small bay at the base of Archcliffe Point, nearly 1km west of the medieval town. Very little is known about the extent or layout of this early harbour. Its architect is believed to have been John Clerk, master of the Maison Dieu and references to a 'pere' in Clerk's first account of the harbour suggest that construction work was well underway before 1510 (Johnston, 1994). This pier appears to have sheltered a small harbour locally referred to as 'Paradise' due to its initial success as a refuge for vessels from the south-west winds. However, this new

refuge appears, to have been short lived and shingle and beach pebbles quickly built up against the south-eastern side of the pier. Attempts were made throughout the first half of the 16th century to prevent this accumulation. In the 1520s the work was largely confined to digging out the channel and to general repairs carried out after storms to keep the existing harbour at the Paradise accessible. These efforts had clearly failed as in 1532 and again in 1533 the crown was petitioned to provide assistance. A local churchman and later master of the Maison Dieu, John Thompson, drew up plans for a new harbour, based on Clerk's earlier work and was assisted by four former mariners. The works commenced in 1535 and although funded by the crown, were designed and executed locally. At their height over 500 people were employed on the works which relied upon huge quantities of material, particularly supplies of timber (Colvin, 1982). The work included the construction of two large timber piers that projected from the mouth of the harbour eastwards into deeper water, and successive extensions to the southern pier (later named the 'Kings Pier'). Despite their scale and huge cost, the works were ultimately a failure, with each stage only exacerbating the recurring problem of the accumulation of beach shingle and sediments. Indeed, the effect of the works was such that the tidal current was so greatly slowed that sand and shingle was deposited along the entire length of the bay. This shingle bank can clearly be seen on Digges' 1581 map (figure 9.11).

Figure 9.11 - Extract from Digges 1581 map showing the harbour immediately before any of the 16th century work was carried out on it

9.15 - Despite these efforts, by 1551 the works on the harbour had slowed and two years later, in 1553, access to the harbour had become near impossible. A new solution was needed, but there was little positive action for the 20 years following and it was not until 1576, when a commission recommended Dover as the most suitable site for a new harbour, that a series of proposals were drawn up. By 1581 the principle of a pent to hold both fresh water from the Dour and salt water from the sea was agreed. Unlike earlier works which were largely delivered locally (albeit with funding from the crown) the Elizabethan harbour was executed under crown's control (through a body of commissioners set up under Lord Cobham), but was not directly funded by it. Funding for the harbour instead came from taxation and the granting of export rights. Work on this new pent was carried out during the summer of 1583 and over the course of a few months a major phase of the harbour's redevelopment was

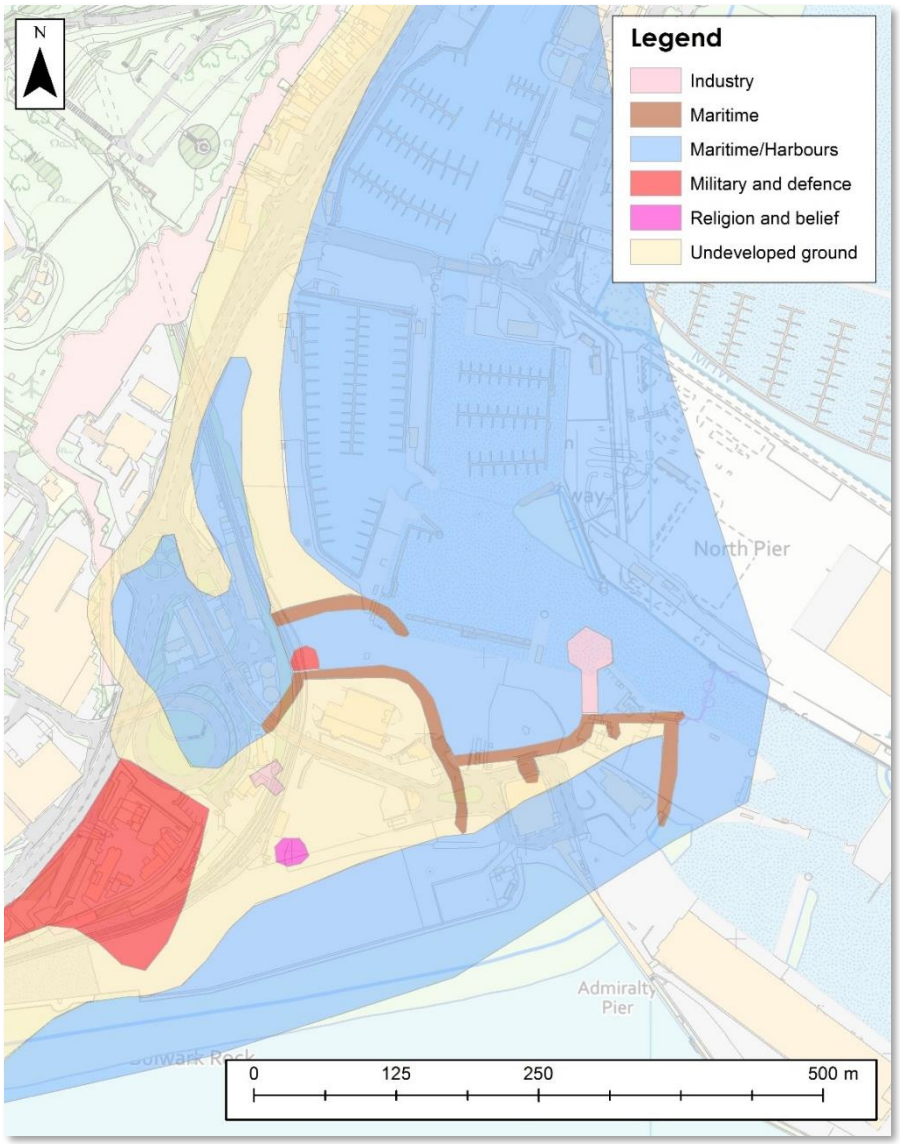

Figure 9.12 - Detail of the works which were completed on the western harbour in the early years of the post-medieval period

completed. An area of about 70,000m^2 was enclosed by timber and earthen walls. This was designed to retain and control the outflow of fresh water at high tide. The trapped water would then have been released periodically at low tide through a sluice to scour the harbour and clear its mouth of any accumulated shingle and beach pebble (Johnston, 1994). Two plans produced by Thomas Digges, one immediately prior to the works in 1581 (Figure 9.11) and a second just after the completion of the pent in 1588 (Figure 9.13) clearly illustrates the extent of this construction work. Further work was completed on the harbour throughout the later 1580s and 1590s including the construction of additional walls, groynes and a remodelling of the harbour mouth. A third plan also produced by Digges in 1595 (Figure 9.14) details these works in their entirety. In this plan three separate harbour areas can be seen, the pent, the tidal harbour known as the Great Paradise (its southern side partly made use of the Henrician works, which were therefore not totally in vain) and the 'Little Paradise' pent. This outline established by the 1590s can still be seen today, the pent occupies the same approximate position as the modern site of Wellington Dock with its cross wall beneath what is now Union Street while the tidal harbour occupies the position of the modern tidal harbour and Granville Dock combined. The successful creation of the Elizabethan harbour saw an economic boom, the results of which become clear if we compare the extent of the town shown on Digges plans

compared with those of Eldred some 50 years later, with properties even shown atop the widened and strengthened seawalls.

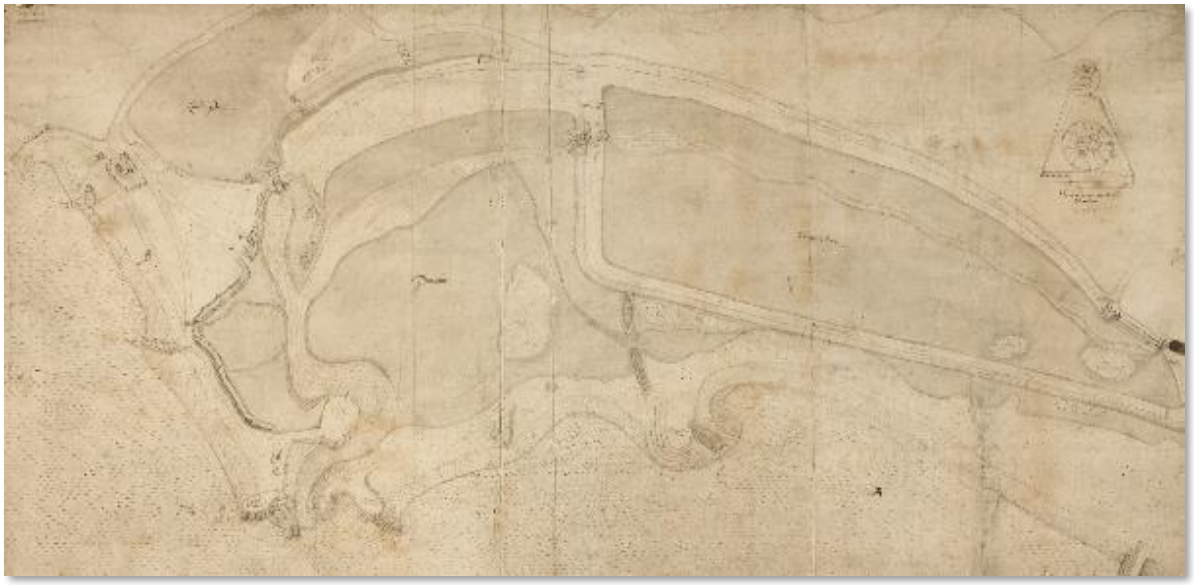

Figure 9.13 - Extract from Digges 1588 map showing the harbour during the 16th century development

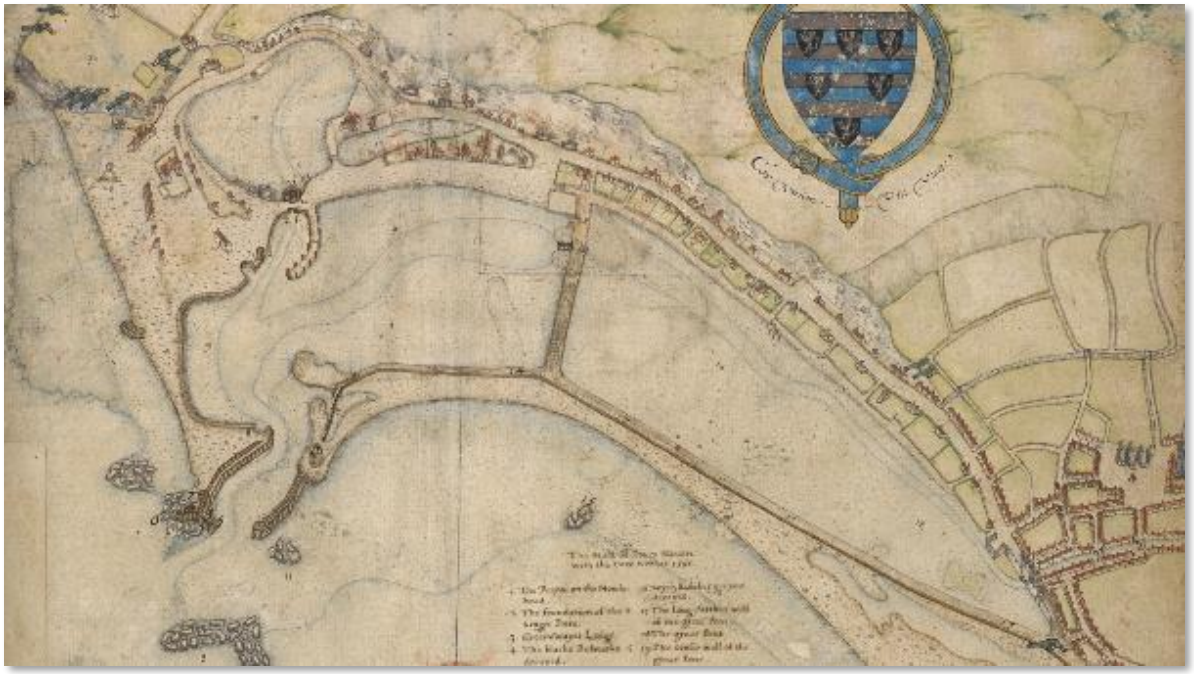

Figure 9.14 - Extract from Digges' 1595 map showing the harbour after the completion of the 16th century development

9.16 - Further works were carried out on the harbour during the 17th century, for example Sir Bernard De Gomme was instructed in 1661 to advise on repairs to the

harbour and was responsible for the rebuilding of the Pent cross-wall in timber and stone. Despite this, the plans of the town and harbour produced by William Eldred (Figure 9.4) show that the harbour seems to have retained much of its 16th century layout, and it is not until Fouquet's map of 1737 (Figure 9.15) that any significant changes are shown. On this map an additional cross-wall with gates is shown separating the southern-most area, marked as the harbour, and the area to the north, marked as a basin. The construction of this second cross wall appears to have occurred in the late 17th century. It was created because the existing sluice was now too far from the harbour mouth, so that the scouring power of the water had largely been lost by the time it reached the mouth and the waters were insufficient to clear accumulated silts and shingle. Even these improvements were not enough and by the end of the 17th century large boats could only enter the harbour at the highest tide (Ash, 2000). Following the industrial revolution in the later years of the post-medieval period, technological advancements in shipping led to an increase in coastal activity. Dover's harbour had to be improved again in response to this need for greater port capacity. By the early 19th century, the historic mapping (Figure 9.16) shows that the earliest and smallest harbour, known as Paradise, had silted up and been consolidated for housing, and the outer harbour was widened on its eastern side. Aside from this, however, the arrangement of the harbour is virtually unchanged on Tucker's 1833 map from the late 17th century harbour as depicted by Fouquet. Works intensified on the harbour throughout the later 19th century and included the construction of the Admiralty Pier between 1847 and 1864, which, as its name suggests was commissioned by the Admiralty as part of an incomplete scheme designed by James Walker to provide a harbour or refuge. This pier was improved and extended in phases throughout the later 19th and early 20th centuries into deep water such that ships could moor directly alongside it. The original pier head was protected by a gun battery that included a circular cast-iron armoured gun turret, known as the Admiralty Pier Turret (a Scheduled Monument and discussed in detail below). The construction of Admiralty Pier greatly reduced the issue of sedimentation that had so long plagued Dover's harbour. The length of the pier was such that its end was so far out to sea that sands, silts and gravels could not settle in the deeper waters. Ironically, this was effectively the same solution as John Thompson had attempted in Henry VIII's reign, but due to the technological restrictions of the day, had been unable to execute. The later post-medieval works also included the reconstruction of the inner basin in the 1870s which was then re-named Granville Dock after Earl Granville, the Lord Warden at that time, and the completion of the Prince of Wales Pier between 1892 and 1902. By 1909 these works had been completed and remain largely unaltered today.

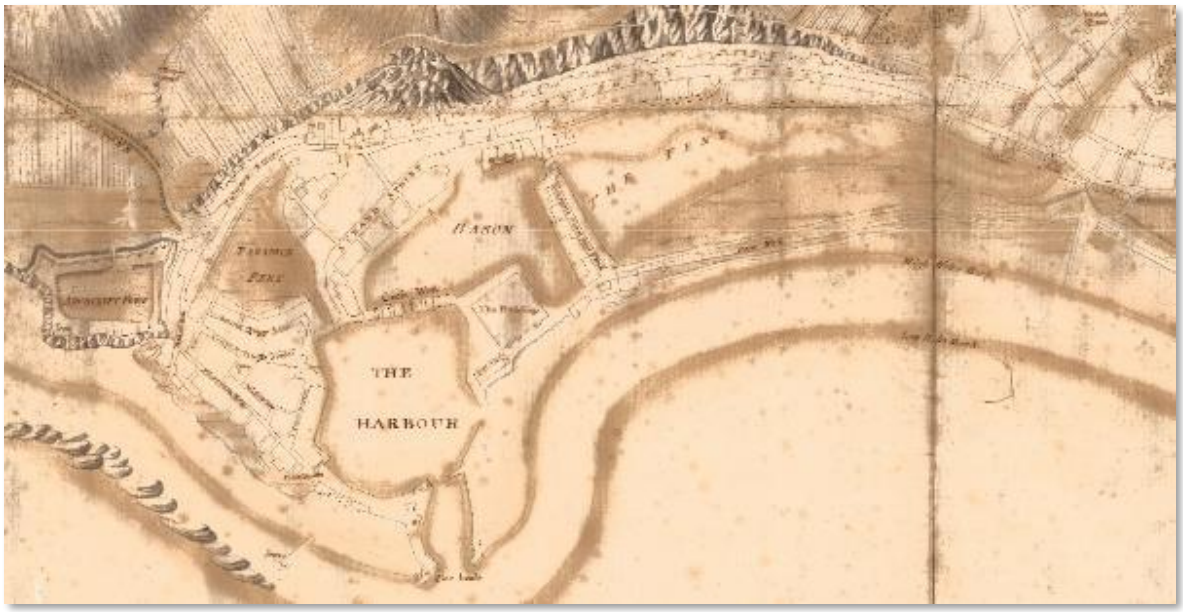

Figure 9.15 - Extract from Fouquet's 1737 map showing the 18th century developments to the harbour

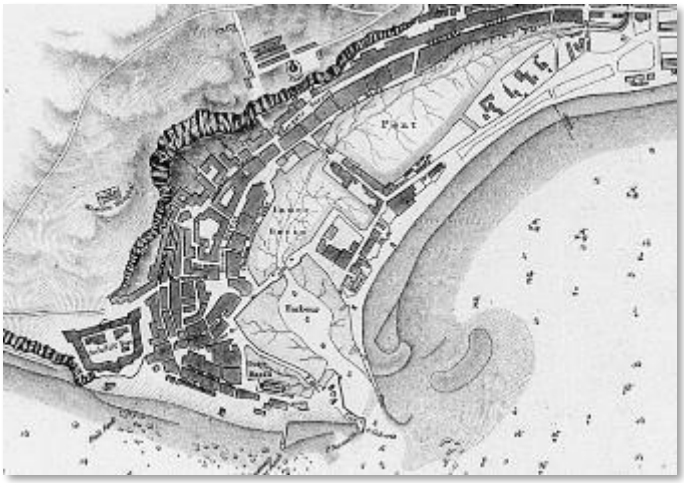

Figure 9.16 - Extract from Tuckers 1833 plan of the harbour.

9.17 - There has only been limited archaeological investigation within the footprint of the post-medieval harbour, and the work that has been undertaken has been mainly restricted to watching briefs or borehole and geotechnical surveys. Despite this, some interesting observations have been made which may add to our understanding of the development of the harbour. For example, an investigation of a large pit near Elizabeth Street, along the former line of Limekiln Street, revealed a series of 19th century cellars and walls of earlier post-medieval date (TR 34 SW 1371). Deposits relating to the infilling of the Paradise Basin were also recorded within the pit alongside clays, silts and two large brick culverts that were possibly associated with the old entrance to the Paradise Harbour (CAT, 2001). Another excavation along Elizabeth Street recorded 1.98m of made ground characterised by a dark grey, fine sandy matrix with a reasonable quantity of post-medieval pottery and ceramic building material (TR 34 SW 1476). Again, these deposits represent the infilling of the Paradise Pent (Wessex Archaeology, 1997). Despite countless periods of expansion and redevelopment

throughout the post-medieval period, the general layout of Dover's western harbour is essentially the same as that achieved by the late 16th century. It is therefore highly likely that parts of the earliest post-medieval harbour works still survive beneath and within the later amendments. This has been demonstrated during investigations undertaken as part of the Dover Western Docks Revival Project ahead of the construction of a new navigation cut. Within these works archaeological remains associated with the early post-medieval harbour were shown to survive. These include a series of timber revetments, identified as belonging to Thomas Digges' 1580 embankment of the Pent Wall and further revetments from its subsequent re-working overseen by Bernard de Gomme in 1661. Also identified within the cut was a complex timber groyne constructed by Nickalls in 1787 to 1788 (ASE, 2017).

Industry

Figure 9.17 - Extract from Fouquet's 1737 map showing the location of a rope walk

9.18 - The increased capacity of the port at Dover throughout the post-medieval period led to a growth in the number of people who were employed in maritime based industries. Shipbuilding prospered in the 18th century with many individual yards being established in the town, particularly along Shakespeare Beach and around the South Pier. These built merchant ships, fishing vessels, cross-channel cutters and, towards the end of the 18th century, the yards at Dover were also producing boats for the Royal Navy. The Victualling function of the house next to the Maison Dieu is well known from documentary sources and this may also have provided a stimulus for local industries. Well-known yards included those owned by the Ladd family, Pascall family and later in the 18th century, the King family. Other industries associated with this shipbuilding such as sail and rope making also prospered in this period and there is clear evidence for their presence on the historic mapping. For instance, a rope walk is visible on Fouquet's 1737 plan of the town (Figure 9.17) in an area that is today occupied by Townwall Street and Marine Parade, and a second is depicted on the seaward side of the Pent. When these areas were developed in the 19th century, it seems the ropewalks were relocated to the west of Archcliffe Fort. Some of the most detailed maps of the town note the use of individual buildings, including those used for various maritime industries. For example, the 1871 1:500 OS map of the town shows a sail manufacturer's workshop located between Council House Street and Seven Stars Street within the Pier District. Trade directories add to the information provided by these historic maps and include detail about ownership as well as use of the buildings. Together these sources illustrate a wide range of industries focussed around the harbour. They note the presence block and pump makers, rope makers,

sail makers, shipwrights and boatbuilders all within this south-western portion of the town.

9.20 - Some of the features associated with this maritime industry still survive. In 1849, a stone-lined slipway complete with a haulage cradle and engine was constructed at the north-eastern end of Wellington Dock (TR 34 SW 1118). This is known as a Patent Slipway and was intended for use both in ship building and repair work. The buildings and structures associated with this slipway have since been removed but the slipway itself survives as an even sloping ramp leading down into the water of the Wellington Dock with a total length of 152m (CAT, 1997). Another example is a Jib Crane which is located immediately to the south of the slipway. The crane, which was built by William Fairburn and Sons of Manchester in 1868, was designed to lower and lift cargo onto ships but has also been used for lifting vessels in and out of the docks (TR 34 SW 2197). It is a rare and important survival that has been protected as a Scheduled Monument and it clearly highlights the importance of Dover as a centre for industry and as a cross-channel trading port (NHLE: 1004193).

9.21 - Aside from the various maritime industries surrounding the harbour, there are two main areas within the town that were a focus for industry throughout the post-medieval period. The first of these is along the course of the river Dour. Documentary sources illustrate a long history of mills on the Dour, probably extending back to Anglo-Saxon times – Bavington Jones refers to a mill at Dover purportedly mentioned in a document of AD 762 (Bavington-Jones, 1916). Again, the historic mapping is a useful tool for understanding the scale, layout and date of this industrial activity. The earliest map that provides possible evidence for industry along the Dour is an 18th century copy of a 16th century plan produced by Digges (Figure 9.18). This shows a building, possibly representing a mill, on or by a bridge spanning the Dour on the north-eastern side of the Maison Dieu. A similar (or the same) building is shown in the same location on Eldred's 17th century map (Figure 9.19). Presumably this is the mill which is recorded as being built by John Payntour in 1540 to provide flour to

Figure 9.18 - Extract from Digges 1581 map showing the possible site of a mill behind the Maison Dieu

Figure 9.19 - Extract from Eldred's 1641 map showing the possible site of a mill behind the Maison Dieu

the victualling store in the Maison Dieu which supplied food and drink to the Navy. In 1590 two mills at the site are recorded - one for wheat and one for malt, which would have supplied the brewery in the Maison Dieu (Luckett, 2020). The requirements for grain increased during the Napoleonic wars, this led to a number of mills being developed or redeveloped, including Stembrook Mill which was built by the Victualling Board to supply milled flour for use by the bakehouse for Dover's victualling yard. The 19th century mapping of the town centre shows the development of this industrial corridor along the banks of the Dour and by the late post-medieval period it included timber yards, breweries, a tannery, mills and foundries. The second focal point for industrial activity within Dover appears to be the area at the base of the cliffs beneath the Western Heights, along the lines of Snargate and Limekiln Street. Again, the historic cartographic sources illustrate this clearly, numerous limekilns are shown on the 16th, 17th and 18th century mapping (Figure 9.20) and by the 19th century further industries, such as brewing, and milling are also apparent in this area.

Figure 9.20 - Extract from Eldred 1641 map showing the location of Limekilns along Limekiln Street

9.22 - Once again, archaeological investigations have corroborated the evidence provided within the documentary sources and historic mapping. A very substantial area of brickwork was uncovered during a watching brief carried out during the reinforcement of the retaining riverside wall along Mill Lane (TR 34 SW 668). This brickwork can be readily equated with the foundations of the old town mill which stood at the site in the 19th century (CAT, 1995). It is possible that these remains replaced an earlier mill mentioned in the Domesday Book, though this is not certain, and the medieval tide mill may have been located further to the north. The remains of 19th century limekilns were located beneath the foundations of the former Holy Trinity Church along Limekiln Street (TR 34 SW 1374). These may have been later replacements of the limekilns visible on the historic mapping as they are in the same approximate position (CAT, 2001). The presence of a seed mill that was established along Limekiln Street in the late 18th century was revealed during excavations in 1999 (TR 34 SW 501) (KARU, 1999). Earth moving in the angle between the existing Limekiln Street and the main railway line revealed a 18th century pit which had been

filled with large quantities of 18th century clay pipe debris, heavily burnt bricks and fused pipe clay fragments (TR 34 SW 1253). This clearly indicates that a clay pipe works must have existed in the immediate area (Parfitt, 1992). This is further evidenced in Pigot's directory which lists a James Hambrook - pipemaker as having his premises on Limekiln Street (Pigot, 1824). Overall the archaeological work that has been carried out in these areas has been relatively small-scale and it is likely that more evidence of post-medieval industrial activity exists within the town centre near the Dour and below the cliffs to the west of the town.

9.23 - One notable industry which was prevalent in Dover was brewing. Dover was ideally situated for a successful brewing industry with pure water from the river Dour, trade connections with the continent and the rest of the UK, as well as (by the later post-medieval period in particular) a population that included a substantial military presence. Some of the first evidence for brewing in the town is seen on the 16th century maps: Digges' 1588 plan depicts a 'brew house' on the north eastern side of the Paradise Pent. This industry appears to have expanded throughout the period and there is evidence of at least eight large breweries in operation in the area by 1850. Some of the 19th century breweries recorded include Cliffe's Brewery at Bulwark Hill, Elgar & Page's on Limekiln Street and another owned by Jenken, Coleman and Rutley on the Quay (Pigot, 1824). One of the oldest and most successful breweries was the Phoenix Brewery which was established on Dolphin Lane in 1740. In 1859 this was purchased from the trustees of the late Thomas Walker by Alfred Leney who went on to expand the brewery to cover a large plot in the St James' area of the town. The expansion of this brewery and the brewing industry in general is clearly documented within the historic mapping (Figures 9.22 and 9.23) and some of the buildings once owned by the Leney's are still upstanding. One example includes the partial remains of a maltings on Castle Street and Dolphin Passage (TR 34 SW 508). The original building has been largely demolished with the Castle Street portion replaced by an office building of early 20th century date but the north and east walls have been retained, preserving a four bay section of the maltings which appears to be three or four storeys high. Other evidence for the brewery has also been seen in the archaeological record. One of the post-medieval buildings uncovered during the Townwall Street petrol station excavation contained a large brick furnace at the

Figure 9.21 - Extract from the 1908 Fire insurance plan showing the location of the Phoenix Brewery

basement level, interpreted as a malt drying kiln (TR 34 SW 1516) (Parfitt, Corke & Cotter, 2006).

9.24 - To support the growing population and increased variety of industries in Dover, the town needed improved utilities. Again, the evidence comes in a wide variety of forms and represents many types of utility. Some notable examples include the Gas Works on Trevanion Street (TR 34 SW 2171) which were some of the first to be established in the town in 1822 (Bavington Jones, 1916). They are shown on several historic OS maps and the tunnels used for storing coal for the manufacture of gas still survive cut into the cliffs. The East Dover Waterworks relied on a well associated with this gas works to provide the eastern side of Dover with water, while the western portion of the town was served by the West Dover Waterworks on Limekiln Street (OS 1st edition 1:2,500 map). In the 1850s, the corporation established its own waterworks on Castle Hill where the Grade II listed pumping station and covered reservoir survive largely unaltered (TR 34 SW 856). Electricity was brought to the town in the last decade of the 19th century with the construction of Dover's Electric Light Works on Park street in 1894 (TR 34 SW 2191), evidence for which again can be found in the historic OS maps.

Figures 9.22 and 9.23 - extracts from the OS town plan of Dover from 1871 showing the location the location of breweries at the western end of the town.

Military and defence

9.25 - Dover's key strategic position at the closest crossing point to the continent has meant that it has played a vital role as a military base, from the Roman period right through to the Cold War. This role grew in importance with the continued and rapid development of weapons technology that occurred throughout the post-medieval period. Improvements were made to many pre-existing defensive sites and the period also saw the construction of many new military and defensive structures, both within and on the outskirts of the town. From the reign of Henry VIII onwards, the defences of Dover were designed to thwart an attack on the port, either as a beach

landing or an attack from the landward side. The defences of both the Castle and the Western Heights reflect this latter role.

9.26 - The defences of Dover Castle (TR 34 SW 5) on the eastern side of the town were continually enhanced during the post-medieval period, particularly after the late 1730s when political and military events led to the rapid re-appraisal of the defences. This led to the substantial modernisation of the Castle and its fortifications. The medieval banks and ditches were reshaped, and many of the walls and towers lowered as the Castle was adapted for artillery warfare. Later in the 18th and 19th centuries, further alterations were made to the Castle in response to the invasion threat from Napoleonic France. New gun positions were erected including several batteries on the cliff top, and barrack blocks constructed across the complex, some of which adapted the medieval buildings that were in some cases, still partially upstanding. Some examples of this include the buildings that line the walls of the inner bailey and various towers within the Castle walls. Others were newly constructed, for example the officers' barracks which were designed by Salvin and still stand in a prominent position south of the keep and inner bailey (TR 34 SW 2567). This large and imposing building was one of the last to be constructed in the post-medieval period, in 1858, and despite its eastern half being largely gutted in the 1970s, the western and central portions of the building remain substantially intact with numerous surviving original features. In addition to these above ground features, development took place underground at Dover Castle. The Casemate Level tunnels were mostly constructed during the Napoleonic Wars, instigated by the requirement for barracks (TR 34 SW 2548). Though the use of such underground space was deemed inappropriate for troop accommodation (and condemned by the 1858 sanitary commission) they were a new initiative at this time and the advantages it offered is highlighted by the continued use of these tunnels, and by the construction of further tunnel networks throughout the 20th century. Indeed, it seems that in the later part of the post-medieval period, the defences and the capacity for holding troops within the walls of Dover Castle were increased or modernised in response to every European war.

9.27 - Another example of a fortification that was greatly strengthened throughout the post-medieval period is Archcliffe Fort (TR 34 SW 84). The extent of the medieval defences at Archcliffe is briefly discussed in the previous chapter. It appears that towards the end of the

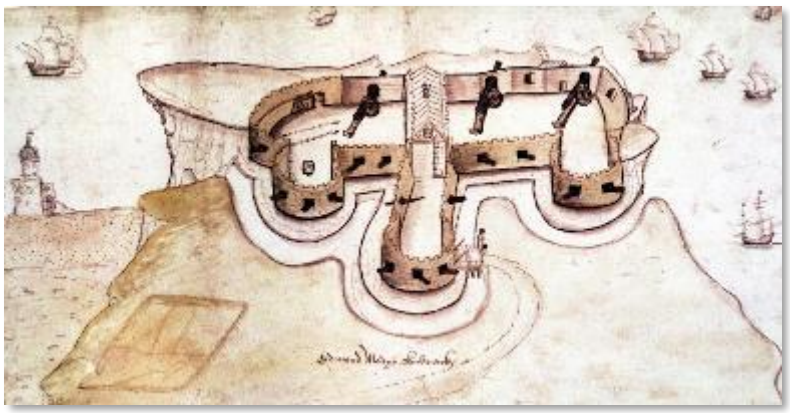

Figure 9.24 - View of Archcliffe in 1539 British Library Aug.I.ii.84

reign of Edward III in 1370 a watch tower surrounded by a chalk bank and ditch was constructed, though little is known about the form or layout of these features. There is no further record of work being undertaken at the fort until the 16th century and the consensus is that it remained virtually unchanged up until 1539 when Henry VIII ordered the construction of a substantial bulwark to replace it. This 1539 construction is clearly shown on an illustration of the same date (Figure 9.24). The Bulwark is labelled as Edmond Mody's Bulwark presumably named for Sir Edmund Moody (1499 to 1562) who reputedly saved Henry VIII from drowning after he attempted to pole-vault over a ditch. The building shown to the left of the bulwark in the background of the drawing is possibly Archcliffe chapel, a structure of probable medieval date which is visible on numerous early post-medieval maps. Again, it is possible that this depiction is more illustrative than accurate, but it does provide us with an idea of the layout and scale of the defences and munitions which were in place. It is possible that the defences in this form did not last long as, aside from the contemporary maps (such as that produced by Cavendish in 1541), no later maps depict this arrangement. The next phase of development at Archcliffe appears to date to the 1640s when the documentary sources indicate that the defences were substantially rebuilt at a cost of over £4300. This work included the revetment of the northern defences and the cutting of a ditch. After this there was a hiatus in its development until the middle of the 18th century, when alongside the construction of new barracks at Dover Castle in 1745 the authorities also commissioned some to be built at Archcliffe. In 1756 approval was given to construct two new guard houses, a barrack block capable of holding a company of men, and to raise a new parapet. The artillery defences continued to be upgraded throughout the 19th century but by this time Archcliffe had become a subsidiary to the major works that were being completed overlooking Archcliffe at the Western Heights (discussed in detail below). Despite its diminished role in the defence of Dover the fort remained garrisoned throughout the 19th century, during which time it was the base for the Commanding Royal Engineer at Dover and provided further service in the Second World War. Much of the site, including the gun emplacements and magazines along the cliff edge, were destroyed during works associated with railway expansion early in the 20th century and the more modern improvement works carried out on the A20. Some of the fort does however still survive, including the stone curtain wall on the north-east and north-west sides with the pointed bastions on the north and west corners of the site all of which has been designated as a Scheduled Monument. Some archaeological investigation has been carried out within the interior of the fort and has revealed that remains of the buildings and structures within the fort's interior still survive just below the ground level. For example, 17th century wall foundations (TR 34 SW 1932) were discovered during an evaluation of the site in 2012 (CAT, 2012).

9.28 - Archcliffe Fort formed part of a larger network of coastal defences constructed throughout the post-medieval period in and around Dover. These appear to have been developed across the town in phases. The earliest of these was during the Tudor period, which, in addition to Archcliffe Bulwark and the Tudor Bulwark at the

Figure 9.25 - View of Moats Bulwark 1541 British Library Aug.I.ii.84

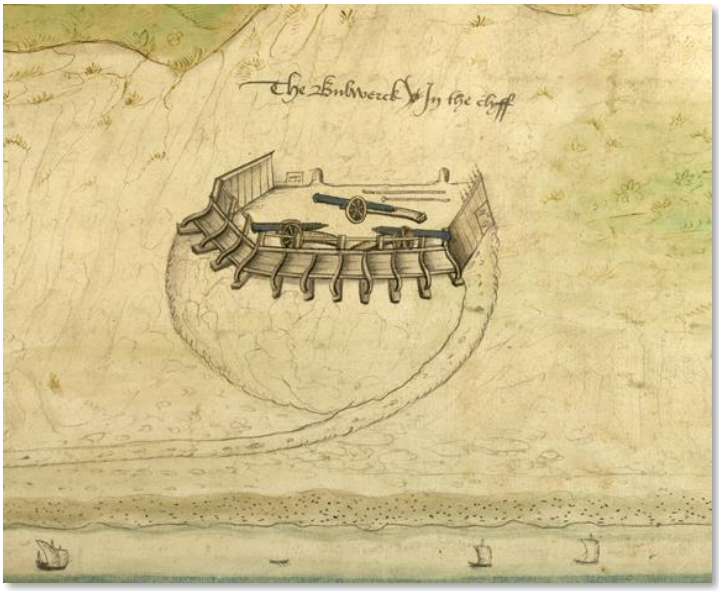

Figure 9.26 - View of Black Bulwark in the Cliffe 1539 British Library Aug.I.ii.84

Castle, included Moats Bulwark, the (Black) Bulwark in the Cliff and the Black Bulwark on the Pier. Moats Bulwark (TR 34 SW 2518) was constructed between 1539 and 1541 to further strengthen the outer defences of the Castle. It was located part-way up the cliff, on a platform that was probably the result of an earlier cliff fall on the far south-eastern side of the Castle. Little is known about the construction or early use of the Bulwark but an illustration dating to 1541, similar in style to that produced for Archcliffe (there are three in total which are of the same date and likely have same author), shows it to have had a substantial gun platform with gun ports, and a long timber building to the rear (Figure 9.25). Various alterations and additions were made to the Bulwark in the years following construction, most notably in the 18th century when a new gun battery known as Guilford battery (TR 34 SW 2561) was constructed below and to the east. The remains still present today include part of the original stone and brick revetted upper platform, part of a 16th century stone gatehouse and the zig- zag brick and stone steps leading down to the 18th century semi-circular gun battery. The precise location of the (Black) Bulwark in the Cliff (TR 34 SW 2793) is not known and so far, no remains of it have been discovered. It would have been set somewhere on the cliff above Snargate Street/below the Western Heights and it may be represented by a rectangular structure shown in this location on Cavendish's plan of the town that dates to 1541. Its detail is also depicted in the third in the series of mid-16th century drawings that show the three Tudor artillery bulwarks at Dover (Figure 9.26). This shows a gun platform with three cannons and possible openings in the cliff face behind titled 'The Bulwerck in the Clyff'. The fourth contemporary Bulwark was the Black Bulwark (TR 34 SW 1774) situated on a mass of rock just south of the south pier. This is reported to have been

built after Henry VIII's inspection of the Harbour in 1542 and consisted of a rectangular two-story timber building with a gun port covered in tar (Johnson, 2015). Its location meant that it quickly succumbed to the depredations of the sea and by the end of the 16th century it is depicted (on Digges' 1595 plan) as a pile of rocks that are labelled 'The blacke Bulwarke - decayed'.

9.29 - The next fortification to be completed in the town was the Elizabethan Three Gun Battery that was constructed overlooking the mouth of the river Dour in 1560 (TR 34 SW 1233). This was an open battery which seems to have been designed primarily to protect the harbour facilities there. The battery was later buried after the construction of the New Bridge in 1800, and despite being shown on various historic maps its exact location, size and construction had remained largely unknown. This changed during the excavations carried out in an area between the southern end of Bench Street and the New Bridge as part of the A20 road and sewer scheme (CAT, 2001). During these excavations, various sections of the battery were recorded and found to be surprisingly well preserved in many places. The excavations revealed that the complete structure consisted of a solid rectangular platform projecting from the north bank of the river. Measuring some 13m (east-west) by 21m (north-south), its strong walls were faced with large neatly cut blocks of mortared ragstone over a metre thick. After this, though there were undoubtedly repairs made to the existing structures, there appears to have been a hiatus in the construction of new defences in the town and harbour until the late 18th century when a group of four new batteries were completed. These comprised (west to east) Townsend (or Townshend) Battery located close to the South Pier at Dover's Western docks (TR 34 SW 2791) which likely formed a pair with Amherst Battery (TR 34 SW 211) which was located close to the north pier, North's Battery (TR 34 SW 2792) located near the present site of Granville Gardens and Guilford Battery (TR 34 SW 2561) which is associated with Moat's Bulwark and is near Dover Castle. The majority of these have since been lost, mainly to make way for later post-medieval domestic development. One survival from the post-medieval period comes in the form of the much later Admiralty Pier battery (TR 33 NW 1) which was constructed on Admiralty Pier in 1873 at a time when rapid improvements in artillery, projectiles and armour created something of an the arms race between potential belligerents, but most notably, Britain and France. This is a circular steam powered cast iron armoured turret containing a pair of 80 ton, 16 inch R.M.L. Armstrong guns built on the 'Fraser' system. These are the second largest Armstrong guns ever made, and the last in the UK still on their original carriages and in their original setting. The armoured turret is unique in any British fortification. Despite being decommissioned in 1956 and partially demolished in 1958 a large part of the fort remains and is a Scheduled Monument.

9.30 - By far the most substantial series of fortifications that were constructed in Dover during the post-medieval period were those on the western hill, known as the Western Heights (TR 34 SW 82). These new fortifications were to counter land based attacks from the direction of Folkestone and they consist of two independent

forts, the Citadel at the western end of the hill, and the Drop Redoubt overlooking the town, linked by defensible dry ditches and a fortification called the North Centre and Detached Bastion covering the slopes of the hill and entrance to the north. They occupy an area of high ground overlooking the town, 1.5 km long from east to west and were constructed throughout the later 18th and 19th centuries. Almost all of these fortifications are part of a Scheduled Monument and a Conservation Area and there are also two Listed Buildings – the Citadels Officers' Quarters and the Grand Shaft stairs and attached railings (both Grade II). The Western Heights have been extensively surveyed but little in the way of archaeological investigation has been undertaken within the fortifications and much of what we know is from the extensive range of cartographic and documentary sources that exist, and which clearly detail the various stages of development. So far, the largest archaeological investigation which has been undertaken within the fortress was at the site of the Grand Shaft Barracks. This investigation confirmed that, even for demolished sites, buried remains survive and that there is a role for archaeology to help understand such sites, even when extensive archive sources also exist.

9.31 - The first fortification of the hill began in 1779 as part of a wider scheme to protect Dover and the rest of Britain when the ongoing war with America, widened to include Spain, the Dutch Republic and France. These small-scale early works, designed by Lieutenant Thomas Hyde Page, consisted of temporary earthworks for artillery and infantry. During the early 1780s, Hyde Page designed a more complex scheme comprising two forts with detached outworks. These forts became the Citadel (TR 34 SW 491) straddling the far western end of the hilltop and the Drop Redoubt (TR 34 SW 621) at its eastern end overlooking the town. Following a renewed invasion scare, during 1803 to 1804 plans were drawn up by Captain William Ford to enhance the existing fortifications with the intention of housing a garrison of sufficient size to secure the Heights against attack. Between 1804 and 1816 these plans resulted in major additions and alterations to the pre-existing defences and also saw construction of a third work – the North Centre Bastion (TR 34 SW 2066) – to provide a platform for artillery and infantry to defend the northern approaches of the town and the road from Folkestone in the valley below. A series of dry ditches or 'lines' (The North Lines TR 34 SW 2122 and the South Lines TR 34 SW 2124) were built which, in conjunction with the cliffs on the southern and south-eastern sides of the hill, turned the fortifications into a complete entrenched encampment. In addition to these defensive structures, provision was made within the fortifications for housing additional troops, in the form of various casemated barracks within the Drop Redoubt and Citadel as well as a new complex of barrack blocks located between the two forts, known as the Grand Shaft Barracks (TR 34 SW 972) with the associated Grand Shaft staircase (TR 34 SW 701) connecting the barracks to the town. Built between 1805 and 1807, the Grand Shaft takes the form of three independent staircases spiralling around a central brick-built shaft that acted as a light well. It is a unique structure in such a military context.

9.32 - With the end of the war with France in 1815 the works on the Western Heights ceased and between 1816 and 1850 there was little work carried out, leaving some of the defences only partially complete. In the mid-19th century there was resumed fear of invasion by France based on improvements in steam powered warships armed with improved artillery. This resulted in three periods of alarm (invasion panics) between 1847-1859 and this saw work resumed on completing and improving the unfinished parts of the fortress. By 1859, the perceived threat from Napoleon III's France led to the appointment of a Royal Commission to review the state of England's defences, which recommended a huge programme of fortification. In parallel a separate Royal Commission of 1857 on the sanitary state of the army after the losses of the Crimean war period led to significant improvements to the barracks that soldiers lived in. At Dover's Western Heights this agenda for change resulted in a series of large-scale additions and improvements being undertaken, many designed by Lieutenant Edmund du Cane. Some of the structures completed between 1850 and 1870 include the Drop Battery (TR 34 SW 975), the Southern Entrance and ditch (TR 34 SW 2117), the South Front Barracks (TR 34 SW 974) and the Western Outworks (TR 34 SW 2033). The northern entrance (TR 34 SW 2123), the only surviving entrance into the fort, was also comprehensively re fashioned at this time and much of the surviving fabric within it dates to these mid-19th century alterations. In the later 19th century advances in artillery technology led to a change in military thinking, moving away from one focused on fixed fortifications, to a mobile army employed in the field. Despite this the Western Heights' role evolved to one of a troop concentration, a supply base and site for fewer but more powerful large guns for coastal defence. With this changing role further modifications and additions were made to the fortifications in the later 19th century. These included four coastal batteries: the Citadel Battery (TR 34 SW 887) outside the Western Outworks, South Front Battery (TR 34 SW 788) south of the Citadel, St Martin's Battery (TR 34 SW 474) inside the South Entrance and North Lines Battery (TR 34 SW 1944) west of the Drop Redoubt. By the start of the 20th century the network of defences, batteries, barracks and ancillary buildings was extensive and complex. The Western Heights are amongst some of the most massive and important military structures to have been created in the later post-medieval period anywhere in the UK. That the features still present at the site remain relatively unaltered since the initial construction adds to their significance and the need to secure their long-term survival.

9.33 - It is clear that Dover has a rich and complex military heritage which reflects its status as a major port and gateway to Britain. Further military features are known within the landscape immediately surrounding the town, again highlighting its continued need for protection both throughout this period and into the 20th century. These include Fort Burgoyne (TR 34 SW 81), originally known as Castle Hill Fort, which was built in 1860 to protect the northern approach to Dover Castle and is a Scheduled Monument and a well-preserved example of a 1959 Royal Commission fort. Other later examples include Hougham Battery (TR 23 NE 214) to the south-west of the town and Swingate Radar station (TR 34 SW 1086) to the north-east.

The military presence in the town may be counted alongside the port facilities as one of the main influences in Dover's development throughout the post-medieval period. The presence of forts on either side of the town has prevented development spread up the hills, concentrating it along the valley bottom and shorefront and the dry valleys to the north. They have also had an impact on the type and locations of many industries and commercial premises within the town as well as at times adding great numbers to the town's population. Any study of the development of post-medieval Dover must, therefore, include a thorough examination of the influence of the fortifications around the town.

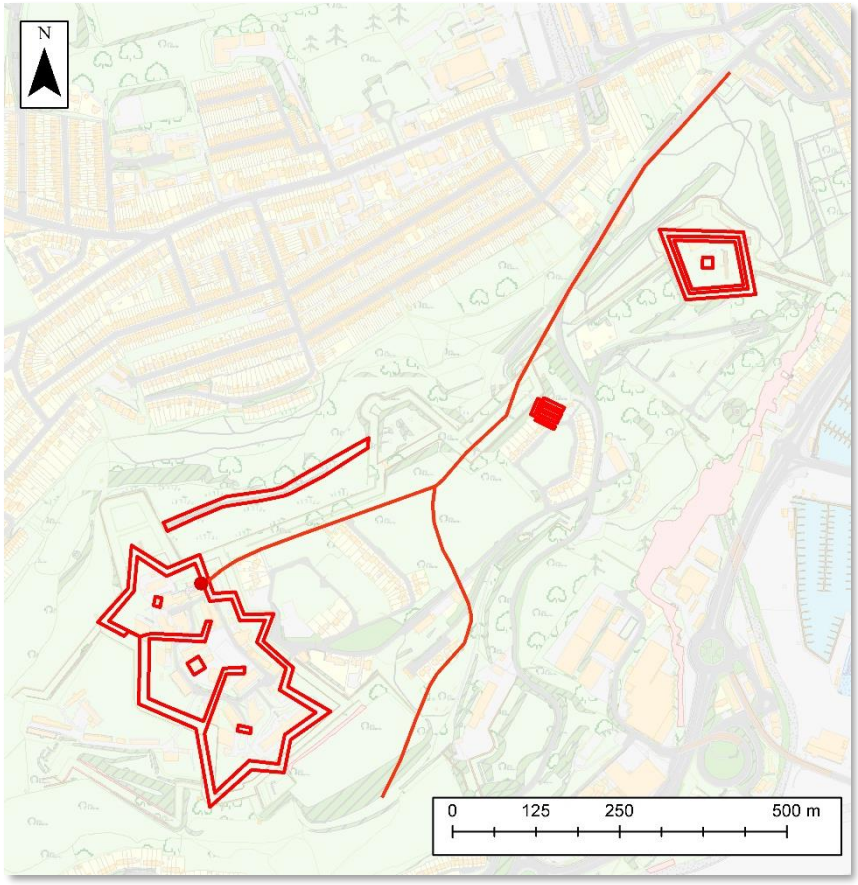

Figure 9.27 - Western Heights 1779-1800

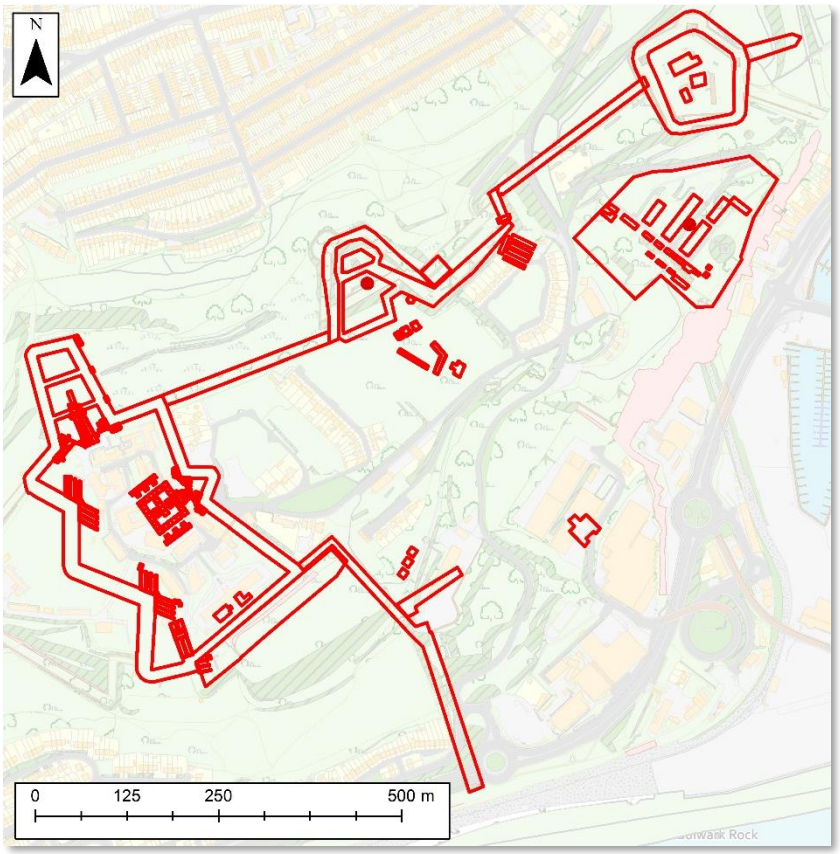

Figure 9.28 - Western Heights 1805-1815

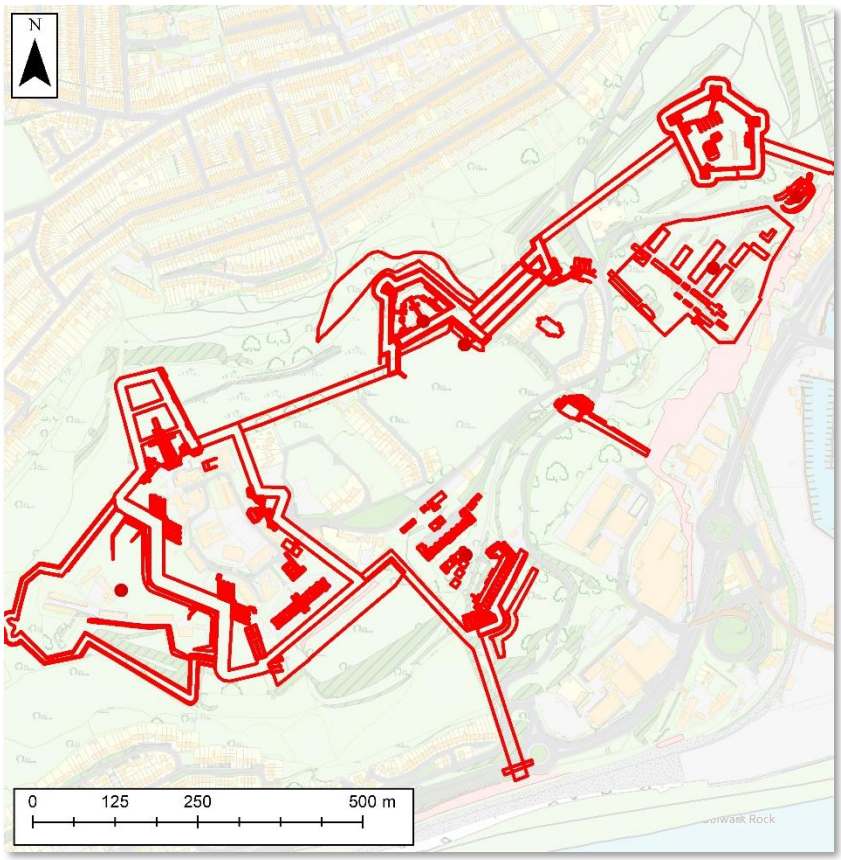

Figure 9.29 - Western Heights 1850-1870

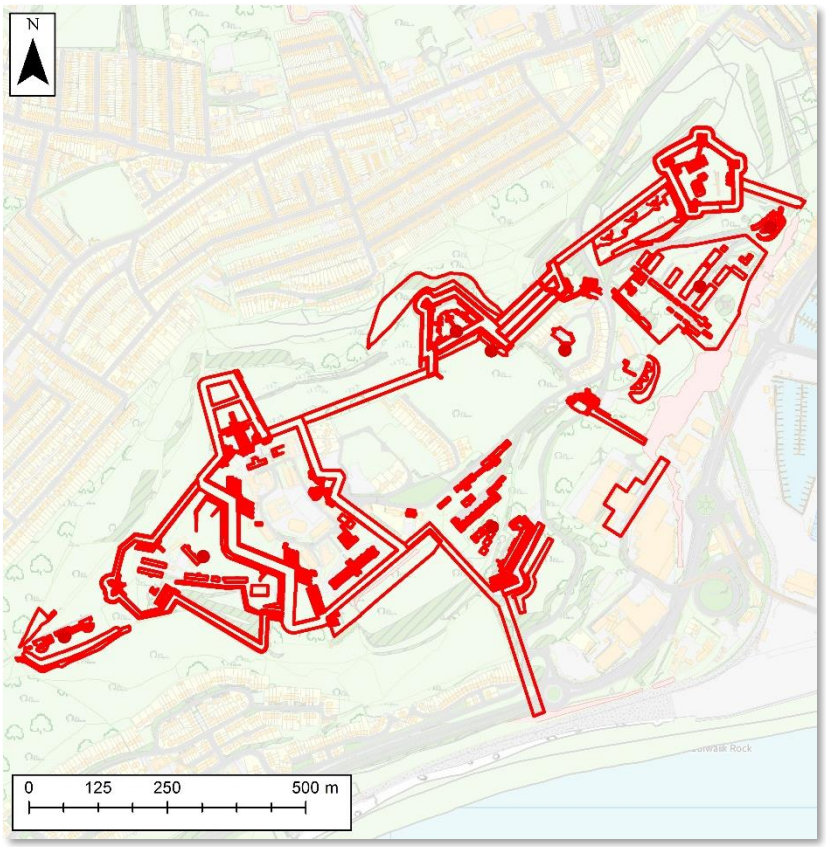

Figure 9.30 - Western Heights 1870-1910

Travel and tourism

9.34 – Before, and for much of the post-medieval period, the Channel crossing to and from the continental mainland would have been a slow and dangerous affair. It was largely an activity reserved for traders, soldiers and pilgrims as well as for the rich and for the social elite. The emergence of fast sailing packets, and from the 1820s cross-Channel steamships, provided a fast and reliable means of crossing the Channel and was one of the major drivers for the development of the port facilities in the 19th century (described above). In addition to this, the introduction of the railway in the 19th century had a profound effect on Dover and Britain as a whole. It was became possible not only to travel, but also to transport goods and information from one end of the country to the other, and on to the continent, in a matter of hours rather than days. The importance of Dover's connection with the continent is in part evidenced by both the quantity and quality of the rail facilities that were constructed within the town. The railway first reached Dover in 1844 when the South Eastern Railway Company built a line between London and Dover via Folkestone (TQ 84 SW 1). In Dover, the station for this line was named Town Station (TR 34 SW 2186) and was located along Beach Street in the Pier District of the town, in an area which is today occupied by a lorry park. The station's proximity to the harbour facilities meant that it was ideally situated when the first part of Admiralty Pier was completed in

1854. It was agreed in that same year that passenger trains would be allowed on to the pier and in 1861 the South Eastern Railway was running trains along it. After many years of use, including its role in the First World War as an ambulance station and mortuary, the station was eventually demolished in the 20th century (by 1921 the train shed had been demolished and the remaining buildings were demolished in 1963). An archaeological evaluation carried out at the site demonstrated that extensive below-ground remains relating to the former station are still present. These include concrete foundations, cambered brick floors, lined inspection pits, a brick lined pit (for an engine turntable) and what were presumably footings for the station platform (CAT, 2002).

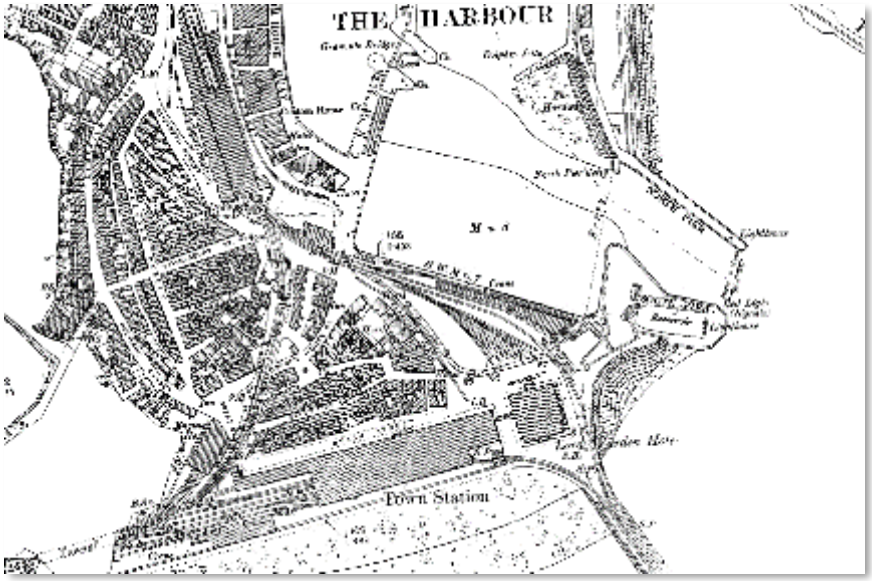

Figure 9.31 - Extract from the Second Edition OS map (c.1897) showing the railway and associated stations surrounding the western docks.

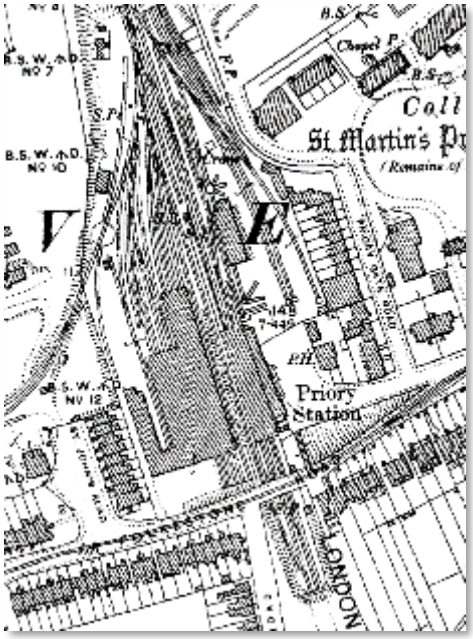

Figure 9.32 - Extract from Second Edition OS map (c.1897) showing Dover Priory Station.

9.35 - The South Eastern Railway Company was not the only rail company to operate in Dover in the 19th century. In 1861 The London Chatham and Dover Railway (TQ 85 SE 300) completed a line between London and Dover with stations at Chatham and Canterbury. Initially the terminus at Dover was called 'Dover Town' and was located on Folkestone Road where it still exists today though was redeveloped in the mid-20th century (TR 34 SW 1055). It was re named 'Dover Priory' in 1863. This station was a terminus for only a very short time and less than a year after its construction it became a through station when the 625m tunnel beneath the Western Heights was completed. This was designed to provide access to the Western Docks where a new terminus named Dover Harbour station (TR 34 SW 753) was constructed on Elizabeth Street near Admiralty Pier. This station is also still upstanding and is a

Listed Building. Shortly after SER extended its line onto Admiralty Pier, so did LCDR and in 1864 the first service ran onto the pier where separate narrow platforms were provided for both the LDCR and SER services. In 1881 a double-track spur was added between the SER's Dover Town station and the LCDR's Dover Harbour station when the two companies opened the "Dover & Deal Joint Line". The construction of this spur required the partial demolition of Archcliffe Fort. By the end of the 19th century both the rail companies operating in Dover were struggling to provide a good service and in order to avoid bankruptcy they formed a joint management committee in 1899 to operate as the South Eastern and Chatham Railway (SE&CR). In 1909 work was started on a new station – Dover Marine - on land reclaimed alongside Admiralty Pier, to replace Dover Town and Dover Harbour stations (TR 34 SW 1839). Though this station closed in 1994 the impressive building still survives, is listed and forms part of the modern cruise terminal.

9.36 - Another noteworthy addition to the transport infrastructure in Dover in the late post-medieval period was the electric traction tram. Construction of the Dover Corporation Tramway (TR 34 SW 999) was started by March 1897 and by later in the same year a system between Buckland Bridge and the Harbour Station had been established. Further lines were established shortly after at Folkestone Road, another though to Maxton and in 1901 the system was extended to River.

9.37 - The changes in Dover that followed the arrival of the railway were not limited to the infrastructure associated with providing a rail service. The ease with which people could travel meant that a major leisure and tourism industry developed, particularly in many coastal towns across Britain. Dover had been a place of leisure prior to the arrival of the railway. An area of reclaimed land on the seaward side of the Great Pent that had been sparsely developed and exploited before the 19th century, became the 'visitors' quarter' of Dover. Large sweeping terraces of attractive town houses and hotels were constructed to house the wealthy residents of Dover and the visiting elite, and travellers passing through Dover before joining a cross Channel fast steam packet. Further residences were also built at East Cliff beneath Dover Castle. The rail service led to an increase in the number of visitors to the town and the rail companies actively encouraged this, producing brochures advertising many of the tourist attractions within Dover. The Town Station and later the Marine Station were linked to the Lord Warden Hotel (TR 34 SW 843) that provided lodging for passengers before continuing their journey to London or to France. The Lord Warden Hotel is a Listed Building and is one of the few post-medieval buildings still present amongst the modern harbour works. The visitors' quarter was enhanced with various recreational facilities including public gardens, a promenade pier (TR 34 SW 1766) and swimming baths (warm and cold baths and sea-bathing machines) (TR 34 SW 2162). These were all designed to cater for the many visitors to the "Gateway to Europe" and to take advantage of the Victorian fashion whereby those of high social standing visited the coast for both pleasure and for the perceived health benefits. Evidence of this tourism industry is clearly visible in the 19th century mapping and

many of the buildings still survive. These include parts of Cambridge Terrace (TR 34 SW 728), Waterloo Crescent (TR 34 SW 697), New Bridge House (TR 34 SW 891) and the terraces at East Cliff beneath the castle. All date to between 1834 and 1865 and are Listed Buildings within Conservation Areas. There is also archaeological evidence of Dover's developing tourist industry. The remains of the large Burlington Hotel (TR 34 SW 1526), an impressive, six storey brick building constructed in 1864, was discovered during the Townwall Street filling station excavations carried out in the 1990s (Parfitt, Corke & Cotter, 2006).

9.38 - It seems clear that the wider social and technological changes taking place across western Europe in the post-medieval period had a profound effect on the town and port of Dover. The scale of development was unprecedented. Domestic, commercial and industrial development expanded exponentially and the creation of jobs in new industries led to a large increase in the population of the town. This expansion was mirrored by the huge increase in defensive structures in and around Dover. These were developed from the 16th century onwards and continually adapted in response to the perceived invasion threats and advances in weapons technology. Most notable among these are the extensive series of defences constructed at the Western Heights throughout the late 18th and 19th centuries. The harbour too underwent several schemes of alteration, the footprints of which essentially reflect the layout of the Western Docks today.

Further reading

9.39 - Extracts from a wide range of historic maps have been used throughout this summary. The originals are held at a various archives and museums including: The National Archives, The British Library, Dover Museum, Dover Harbour Board and Canterbury Cathedral Archives. Some of the collection catalogues are available to search online and several include digitised versions of the original sources.

- https://discovery.nationalarchives.gov.uk/
- http://explore.bl.uk/primo_library/libweb/action/search.do?vid=BLVU1
- https://www.kentarchives.org.uk/

In addition to the historic maps, other original sources such as newspapers, journal articles, directories, photographs and books exist, all of which are a valuable source of information, particularly for the later post-medieval period. Many of these are also held at local or national archives and museums. The directories, which are largely available online, hold a great deal of data for the late post-medieval period including information about major professions, nobility, gentry, clergy, trades and occupations including taverns and public houses and much more. Those used here include:

- Pigot, J. (1824). *Pigot's Directory of Kent.*

- *Kelly's Directory of Kent .* (1884). Kelly's Directories .

There have been numerous books of relevance written in the 19th and 20th centuries. Some noteworthy examples include:

- Batcheller, W. (1828). *The New Dover Guide .* Dover: King's Arms Library
- Bavington Jones , J. (1907). *Dover: A Perambulation of the Town, Port and Fortress .* Dover Express Works.
- Bavington Jones, J. (1916). *The Annals of Dover.* Dover Express Works.

Histories were also written at a county-wide level and the Victoria County History of Kent, which was produced in the early 20th century, provides three volumes of information about the known development of the county from the Roman period onwards. Large parts of this have been digitised and are available online:

- https://archive.org/details/victoriahistoryo01page
- https://www.british-history.ac.uk/vch/kent/vol2
- https://www.kentarchaeology.org.uk/Research/03/03/00/ix.htm

By the 18th and 19th centuries we also have information from archaeologists working in the town. These early discoveries were often documented within journal articles, *Archaeologia Cantiana* for example (the journal of the Kent Archaeological Society), was first published in 1858 and contains a great deal of information about early archaeological discoveries in Dover. It continues to this day and is available to view online:

- https://www.kentarchaeology.org.uk/research/archaeologia-cantiana

There is also a wealth of information about the history of Dover available online, compiled by institutions and researchers:

- https://www.dovermuseum.co.uk/Home.aspx
- http://www.dover-kent.com/
- http://www.discoverthedour.org/heritage.html

Many of Dover's upstanding post-medieval buildings are Listed Buildings or Scheduled Monuments and information about all of England's protected buildings maybe found within the National Heritage List for England (NHLE). This is available to search online:

- https://historicengland.org.uk/listing/the-list/

Historic England has also produced more detailed studies of some of the most important features in the town (the Scheduled Monuments). A series of reports

detailing the development of the Western Heights is available and includes detailed descriptions and maps. In 2012 Liv Gibbs brought these and other sources of information together in a detailed Conservation Framework.

- Gibbs, L. (2012). *Built heritage and conservation framework for Dover Western Heights .*

Dover Castle's post-medieval development has also been presented in a number of publications:

- Coad, J. (1997). *Dover Castle .* English Heritage
- English Heritage. (2014). *Dover Castle Conservation Management Plan Volume 1: Main Text. English Heritage.* Unpublished Document .
- English Heritage. (2014). *Dover Castle Conservation Management Plan Volume 2: Gazetteer.* English Heritage. Unpublished Document.

The Kent Historic Environment Record is compiled by Kent County Council, also holds information about Dover's post-medieval heritage and is the main record of the historic environment in the county. It includes a great deal of information about archaeological discoveries as well as the excavations themselves, and sources for further reading. It is available online

- https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SimpleSearch.aspx

The results of more recent archaeological discoveries in the town are usually presented in archaeological reports (digital copies of which are held by Kent County Council) and in journal articles. The Canterbury Archaeological Trust has carried out many archaeological investigations in the town, a number of which have recorded post-medieval archaeological remains. Summaries of the results of many of these investigations have been published in annual reviews and may be viewed online:

- http://www.canterburytrust.co.uk/publications/annual-reports/

The Townwall Street excavations recorded much post-medieval information and has been published in a detailed book:

- Parfitt, K., Corke, B., & Cotter, J. (2006). *Townwall Street, Dover: Excavations 1996.* Canterbury Archaeological Trust.

BIBLIOGRAPHY

This Characterisation has drawn on many different sources of information. The list below is not intended to be exhaustive, however, and further sources of information about individual sites can be obtained from the Kent Historic Environment Record, Kent County Council.

Amos, A. J., & Wheeler, M. (1929). The Saxon Shore Fortress at Dover. *Archaeological Journal* , 47-58.

Amos, E. G. (1939). Reports: Report from Dover for 1939. *Archaeologia Cantiana* , 211-212.

Archaeology South East - ASE. (2017). *Dover Western Docks Revival; Navigation Cut, Timber Revetments Interim Report (Draft).* Unpublished document.

Ash, E. H. (2000). "A Perfect and an Absolute Work": Expertise, Authority, and the Rebuilding of Dover Harbor, 1579-1583. *Technology and Culture, Vol. 41*, 239-268.

Ashbee, P., & Dunning , G. C. (1960). The round Barrows of East Kent. *Archaeologia Cantiana* , 48-57.

Batcheller, W. (1828). *The New Dover Guide .* Dover: King's Arms Library.

Bavington Jones , J. (1907). *Dover: A Perambulation of the Town, Port and Fortress .* Dover Express Works.

Bavington Jones, J. (1916). *The Annals of Dover.* Dover Express Works.

Biddle, M. (1964). Medieval Britain in 1962 and 1963; Kent: Dover. *Medieval Archaeology, Vol, 8*, pp. 254-255.

Bishop of Amiens Wido. (1999). The Carmen de Hastingae Proelio of Guy, Bishop of Amiens. (F. Barlow, Trans.) Oxford: Oxford University.

Booth, K. (2007). The Roman Pharos at Dover. *English Heritage Historical Review*, 8-21.

Brown , M., Williams, A., Pattison, P., & Menuge, A. (2001). *The Western Height Dover Kent. Report 3: The Drop Redoubt 19th century artillery fortification.* English Heritage.

Brown, M., & Pattison, P. (2001). *The Western Heights Dover Kent. Report 8: The Citadel Battery a late 19th/early 20th century coast artillery battery.* English Heritage.

Brown, M., & Williams, A. (2004). *The Western Heights Dover Kent. Report 6: The Entrances to the Fortress: 19th century infantry and artillery fortifications.* English.

Brown, M., Pattison, P., & Williams, A. (2004). *Western Heights Dover Kent. Report 10 Miscellaneous Military Structures 1850-1945.* English Heritage .

Burridge, D. (1987). *The Dover Turret: Admiralty P{ier Fort.* North Kent Books.

Canterbury Archaeological Trust - CAT . (2001). *Dover Sewers/A20 Project 1991–3, Assessment Report and Updated Project Design.* Unpublished Report.

Canterbury Archaeological Trust - CAT . (2001). *Report on Archaeological Evaluation: Trenching off Queen's Gardens, Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT . (2001). *Report on Archaeological Watching Brief at St. Marys Primary School.* Unpublished Document.

Canterbury Archaeological Trust - CAT . (2018). *Grand Shaft Barracks, Western Heights, Dover, Evaluation Report.* Unpublished document.

Canterbury Archaeological Trust - CAT. (1994). *256 Whitfield to Eastry Improvement Road: Report on Archaeological Evaluations 1992-1993.* Unpublished document .

Canterbury Archaeological Trust - CAT. (1995). *Archaeological Observations at Mill Lane, Dover.* Unpublished document .

Canterbury Archaeological Trust - CAT. (1995). *Report on an Archaeological Watching Brief at No. 137 Snargate Street, Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT. (1996). *Archaeological Observations On Buckland Estate, Dover: The Howard Houses Redevelopment Sites.* Unpublished document .

Canterbury Archaeological Trust - CAT. (1996). *Whitfield-Eastry Bypass 1995: Assessment Report on Excavations at Site 2 (Church Whitfield Crossroad).* Unpublished document .

Canterbury Archaeological Trust - CAT. (1997). *Report on the Patent Slipway, Wellington Dock Dover.* Unpublished document .

Canterbury Archaeological Trust - CAT. (1998). *Archaeological Evaluation of Land at Honeywood Parkway, Whitecliffs Business Park, Whitfield.* Unpublished document.

Canterbury Archaeological Trust - CAT. (1998). *Dover Town Centre Investment Zone: Archaeological Appraisal Stage 2.* Unpublished document.

Canterbury Archaeological Trust - CAT. (1998). *The Folkestone Transfer Pipeline.* Unpublished document.

Canterbury Archaeological Trust - CAT. (1999). *Report on a Watching Brief conducted at the new Dover Ship's Stores Building, Honeywood Road, Whitfield, Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2000). *Report on Archaeological Investigations at Honeywood Parkway, Whitfield.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2002). *Crabble Paper Mill, River, Dover: An Assessment of the Archaeological and Geoarchaeological Discoveries.* Unpublished document .

Canterbury Archaeological Trust - CAT. (2002). *Report on Archaeological Evaluation Trenching at Town Yard, Dover Western Docks.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2008). *Western Heights Water Upgrade, 2007-2008, Watching Brief report.* Unpublished Document.

Canterbury Archaeological Trust - CAT. (2009). *Report on a watching brief at St Radigund's Abbey Farm, Hough, nr Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2010). *Archaeological investigation at Bridge street, Dover, Kent. A post-excvation assessment and updated project design report.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2010). *Report on Evaluation Trenching in 2010, off Honeywood Parkway, White Cliffs Business Park, Dover (proposed development for, Holdingmaatschappij Hulssems BV).* Unpublished document .

Canterbury Archaeological Trust - CAT. (2012). *Archaeological Watching-brief at Archcliffe Fort, Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2014). *Report on a watching brief at Nos 149-156 Snargate Street, Dover.* Unpublished document.

Canterbury Archaeological Trust - CAT. (2020). *Maison Dieu, Ladywell, Dover Archaeological Watching Brief .* Unpublished Document.

Captain McDakin. (1899). *Coastal Erosion, Dover Cliffs.* The Standard Office.

Chibnall, M., & Davis, R. H. (1998). *The Gesta Guillelmi of William of Poitiers.* Oxford: Clarendon .

Clark, P. (Ed.). (2004). *The Dover Bronze Age Boat.* Dover: Royal Commission on Historical Monuments .

Clark, P. (Ed.). (2004). *The Dover Bronze Age Boat in context: Society and Water Transpot in Prehistoric Europe .* Oxbow Books .

Coad, J. (1997). *Dover Castle .* English Heritage.

Coad, J. G., & Lewis, P. N. (1982). The Later Fortifications of Dover. *Post Medieval Archaeology*, 141-200.

Collingwood, R. J. (1924). Roman Britain in 1924. *Journal of Roman Studies* , 241-242.

Colvin, H. M. (1959). An Iron Age Hillfort at Dover? *Antiquity*, 125-127.

Colvin, H. M. (1982). *History of the Kings Works 1485-1660.* Stationary Office Books .

Cook, A. M., Mynard, D. C., & Rigold, S. (1969). Excavations at Dover Castle, Principally in the Inner Bailey. *Journal of the British Archaeological Association , 32*, pp. 54-104.

Corke, B. (1995). Fieldwork III Kent sites: 18 Royal Victoria Hospital, Dover. *Canterbury's Archaeology 1994–1995, Vol, 20*, pp. 20-42.

Council for Kentish Archaeology. (1971). Medieval Site at Dover. *Kent Archaeological Review, 26*, pp. 160-161.

Council, K. C. (n.d.). *Exploring Kents Past*. Retrieved from The Kent Historic Environment Record: https://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/SingleResult.aspx?uid=TKE1046

Crellin, T. D. (1974). Investigations and excavations During the Year. *Archaeologia Cantiana*, 215-223.

Domesday Book: A Complete Translation. (2003). (G. H. Martin, Trans.) Penguin Books.

Dover Archaeological Group - DAG. (2003). *Iron Age Activity on Edinburgh Hill, Burgoyne Heights nr Dover, Kent.* Unpublished document.

Dover District Council. (2002). *Dover Town Centre Conservation Area Character Appraisal.* Unpublished document .

Dover Museum. (2017). Dover Museum Accession Book.

Dover Museum. (2020). *Articles and Factsheets Courts the Wine Merchants 140 Snargate Street.* Retrieved from Dover Museum Website: https://www.dovermuseum.co.uk/Information-Resources/Articles--Factsheets/Courts-the-Wine-Merchants.aspx

England, H. (n.d.). *The National Heritage List for England* . Retrieved from https://historicengland.org.uk/listing/the-list/

English Heritage. (2011). *Arthur's Hall, Dover Castle, Kent, Analaysis of the building, historic building recording.* Unpubliched Document .

English Heritage. (2014). *Dover Castle Conservation Management Plan Volume 2: Gazetteer.* English Heritage.

Evison, V. (1987). *Dover: The Buckland Anglo-Saxon Cemetery.* Oxford: St Phillip's Books .

Fairley, W. (1998). Notitia Dignitatum or Register of Dignitaries. In *Translations and Reprints from Original Sources of European History.* Philedelphia: University of Pennsylvania Press.

Garrow, D., & Pattison, P. (2001). *The Western Heights Dover Kent. Report 5: St MArtins Battery 19th and 20th century coast artillery battery.* English heritage.

Gibbs, L. (2012). *Built heritage and conservation framework for Dover Western Heights .*

Godfrey, W. H. (1929). Some Medieval Hospitals of East Kent. *Archaeological journal, Vol. 86*, pp. 99-110.

Halliwell, G., & Parfitt, K. (1993). Non-river gravel Lower and Middle Palaeolithic discoveries in East Kent. *Kent Archaeological Review*, pp. 80-89.

Hasted, E. (1797). *History and topographical survey of Kent .* Canterbury: W Bristow .

Historic England. (2020). *NHLE*. Retrieved from https://historicengland.org.uk/listing/the-list/

Hood, A., & Michaels, T. (2008). *Russell Street, Dover, Kent: Archaeological Evaluation. Foundations Archaeology.* Unpublished Report.

Hutchinson, G. (1976). Two Palaeolithic hand axes from Whitfield. *Kent Archaeological Review* , p. 130.

Johnson, M. S. (2015). Historic Timber Built Seacoast Piers of Eastern England: Technological, Environmental and Social Contexts. PhD Theseis for the University of York.

Johnston, S. A. (1994). *Making mathematical practice : gentlemen, practitioners and artisans in Elizabethan England.* (Doctoral Thesis).

Kelly's Directory of Kent . (1884). Kelly's Directories .

Kent Archaeological Rescue Unit - KARU. (1999). *Limekiln Street, Dover - report on an archaeological watching brief.* Unpublished document.

Kent County Council. (2013). *Dover District Heritage Strategy.*

Knocker, E. (1884). The Church of St James, Dover. *Journal of the British Archaeological Association* , 394-399.

Luckett, A. (2020, January). *Mills of the Dour*. Retrieved from Discover the Dour: http://www.discoverthedour.org/mills-of-the-dour.html

Lyon. (1779). Description of a Roman Bath Discovered at Dover. *Archaeologia: or miscellaneous tracts relating to antiquity*, 325-334.

Maritime Archaeology. (2008). *Dover Marine Geophysical Survey Report.* Unpublished document.

MAritime Archaeology Ltd. (2008). *Dover Terminal 2 Historic Environment Baseline Report, Volume 1.*

Mothersole, J. (1924). *The Saxon Shore.* John Lane.

Mynott, E. (1981). The Zion Chapel Site, Dover. *Kent Archaeological Review*, 131.

Oxford Archaeological Unit. (1994). *11-16 Biggin Street Dover Archaeological Field Evaluation.* Unpublished Report.

Page, W. (Ed.). (1908). *The Victoria History of the Counties of England, Kent Volume 1.* Archibald Constable and Company Ltd .

Page, W. (Ed.). (1932). *Victoria County History of Kent Volume 3.* Constable.

Parfitt, K. (1992). A20/Dover Sewers Project . *Canterbury's Archaeology 1991-1992*, 11-16.

Parfitt, K. (1993). A20/Dover Sewers Project . *Canterbury's Archaeology 1992-1993*, 13-18.

Parfitt, K. (1994). Fieldwork: Kent Sites 13 Royal Victoria Hospital, Dover. *Canterburys Archaeology 1993-1994, Vol, 19*, pp. 20-32.

Parfitt, K. (1996). Fieldwork III Kent Sites 22 - Unitarian church, York Street Dover . *Canterbury's Archaeology 1995–1996*, pp. 35-36.

Parfitt, K. (2003). Kent sites. *Canterburys Archaeology Annual Report 2002-2003*, pp. 30 - 40.

Parfitt, K. (2010). Medieval Upmarket Ward of Dover. *Archaeologia Cantiana* , 191-205.

Parfitt, K. (2016). Researching historic Dover - St. James Area . *Canterbury's Archaeology 2015-2016*, 1-24.

Parfitt, K. (2018). *Dover St James redevelopment. Interim report on archaeological excavation .* Unpublished Report.

Parfitt, K., & Anderson, T. (2012). *Buckland Anglo Saxon Cemetery, Dover.* Canterbury Archaeological Trust.

Parfitt, K., & Bates, M. (2009). *Dover Market Square Boreholes: Archaeological and Palaeoenvironmental Assessment Report.*

Parfitt, K., & Halliwell, G. (1996). More Palaeolithic discoveries in East Kent. *Kent Archaeological Review* , pp. 58-64.

Parfitt, K., Corke, B., & Cotter, J. (2006). *Townwall Street, Dover: Excavations 1996.* Canterbury Archaeological Trust.

Parfitt, K., Gaunt, J., & Halliwell, G. (1977). Surveys along the Dover by-pass. *Kent Archaeological Review* , pp. 196-200.

Pattison, P. (2001). *The Western Heights Dover Kent. Report 7: North Centre and Detached Bastions 19th century fortifications.* English Heritage.

Pattison, P., & Williams, A. (2001). *The Wetsern Heights Dover Kent. Report 9: South Front Barracks Later 19th and 20th century barracks complex.* English Heritage.

Pattison, P., & Williams, A. (2004). *The Western Heights Dover Kent. Report 4: The Grand Shaft Barracks 19th and 20th century infantry barracks.* English Heritage.

Payne, G. (1889). On a Roman Statue and other remains in the Dover Museum. *Archaeologia Cantiana*, 202-205.

Payne, G. (1894, Map 10th). *Proceedings of the Society of Antiquaries of London., Vol, 15*, pp. 178-181.

Philp, B. (1981). *The excavation of the Roman Fort of the Classis Britannica at Dover 1970-1977.* Kent Archaeological Rescue Unit .

Philp, B. (1989). *The Roman House with Bacchic Murals at Dover .* Kent Archaeological Rescue Unit .

Philp, B. (1990). Major Discoveries at Dover 1990. *Kent Archaeological Review, Vol, 102*, pp. 33-47.

Philp, B. (2002). *Archaeology in the Front Line: 50 Years of Kent Rescue 1952 - 2002.* Kent Archaeological Rescue Unit.

Philp, B. (2003). *The Discovery and Excavation of Anglo Saxon Dover.* Kent Archaeological Rescue Unit.

Philp, B. (2012). *The discovery and excavation of the Roman Shore-Fort at Dover .* Kent Archaeological Rescue Unit .

Philp, B. (2014). *Discoveries and Excavations across Kent, 1970-2014.* Kent Archaeological Rescue Unit .

Pigot, J. (1824). *Pigot's Directory of Kent.*

Port of Dover. (2020, 02 07). *Port of Dover website*. Retrieved from https://www.doverport.co.uk/

Poynter, A. (1864). Proceedings at Meetings of the Royal Archaeological institute. *Archaeological Journal*, 86-392.

Pre Construct Archaeology - PCA. (2016). *149-156 Snargate Street, Dover, Kent - An Archaeological Assessment.* Unpublished Document.

Prehistoric Kent. (2007). In J. Williams (Ed.), *The Archaeology of Kent to AD 800.* The Boydell Press.

Puckle, C. (1893). Vestiges of Roman Dover . *Archaeologica Cantiana*, 128-136.

Rahtz, P. A. (1958). Dover: Stembrook and St Martin Le Grande . *Archaeologica Cantiana* , 111-137.

Rigold, S. E. (1967). Excavations at Dover Castle . *Journal of the British Archaeological Association* , 87-101.

Rigold, S. E. (1969). The Roman Haven at Dover . *The Archaeological Journal* , 78-100.

Rigold, S. E., & Webster, L. E. (1977). Three Anglo Saxon Disk Brooches. *Archaeologia Cantiana, Vol, 85*, pp. 1-18.

Rix, M. M., & Dunning, G. C. (1955). Excavation of a Medieval Garderobe in Snargate Street Dover 1945. *Archaeologia Cantiana*, 132-158.

Russell, C. (2005). *Durham anthropology journal, Vol. 13*, pp. 1-12.

Scott, G. (1863). The Church on Castle Hill Dover. *Archaeologica Cantiana*, 1-18.

Souther Water Services . (1993). *Dover & Folkestone Wastewater Treatment scheme Environmental Statement.* Unpublished Document.

Stevens, S., & Philp, B. (1976). Major Discovery of Bronze Age Implements at Dover. . *Kent Archaeological Review - KAR*, pp. 63-73.

Strabo. (n.d.). *Geography.* (H. C. Hamilton, & W. Falconer, Trans.) Retrieved from http://data.perseus.org/citations/urn:cts:greekLit:tlg0099.tlg001.perseus-eng2:notice

Swale and Thames Archaeological Survey Company - SWAT. (2011). *An Archaeological Evaluation on land at the Former Royal Mail Sorting Office, 70 Maison Dieu Road, Dover, Kent.* Unpublished document.

The Anglo Saxon Chronicle. (1953). (G. N. Garmonsway, Trans.)

The Dover Express . (1905, July Friday 21st). Lloyds Bank Foundations.

The Palaeolithic archaeology of Kent. (2007). In J. Williams (Ed.), *The archaeology of Kent to AD 800.* Boydell Press.

Thomas, G. (2018). Mead-Halls of the Oiscingas: A New Kentish Perspective on the Anglo-Saxon Great Hall Complex Phenomenon. *Medieval Archaeology, Vol, 62*, pp. 262-303.

Thompson, M. W. (1986). Associated Monasteries and Castles in the Middle Ages: A Tentative List. Vol 143. *Archaeological Journal, Vol. 143*, pp. 305-321.

Threipland, M. (1957). Excavations in Dover. *Archaeologia Cantiana*, 14-37.

Welby, D. (1991). *The History of Archcliffe Fort, Dover, Kent .* Polar Bear Press.

Wessex Archaeology . (1996). *Elizabeth St Pumping Station, Proposals for Archaeological Works.* Unpublished document.

Wessex Archaeology . (1997). *Dover & Folkestone Wastewater Treatment, Elizabeth Street Pumping Station Progress Report.* Unpublished document.

Wheeler, M. (1930). The Roman Lighthouses at Dover. *Archaeological Journal* , 26-46.

Wilkinson, D. (1990). *Historic Dover: An archaeological implications survey of the town .* Dover: Dover District Council .

Wilkinson, D. R. (1995). Excavations on the White Cliffs Experience site, Dover, 1988-91. *Archaeologia Cantiana*, 51-148.

Williams, A., Menuge, A., & Pattison, P. (2004). *The Western Heights Dover Kent. Report 2: The Citadel.* English Heritage.

Wilson, J. (1988). Saxon Burials from Priory Hill Dover. *Kent Archaeological Review, Vol, 94*, pp. 81-92.

Wright, R. P. (1956). Roman Britain in 1955 Sites Explored . *Journal of Roman Studies* , 119-152.

Youngs, S., & Clark, J. (1981). Medieval Britain in 1980. *Medieval Archaeology, Vol, 25*, pp. 166-228.