

http://kentarchaeology.org.uk/research/archaeologia-cantiana/

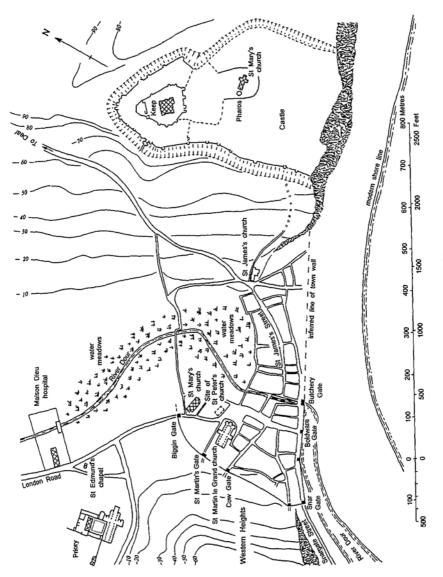
Kent Archaeological Society is a registered charity number 223382 © 2017 Kent Archaeological Society

WAX, STONE AND IRON: DOVER'S TOWN DEFENCES IN THE LATE MIDDLE AGES

SHEILA SWEETINBURGH

In 1537 the chamberlains of Dover raised 14s. $10\frac{1}{2}d$. from murage tolls to repair the town walls, and in the same year the wife of the mayor collected 15s. 8d. from the townspeople for what might be termed the town's spiritual defences.¹ This apparently complementary system for the protection of Dover and its citizens, the physical presence of walls, gates, towers and guns, and the spiritual offices of St Thomas of Canterbury, may have originated in some form in the early thirteenth century, but was in place by the late fourteenth.² Such protection was said to be necessary because the town was vulnerable to attack by the sea and by foreign invaders, the latter in part a reflection of Dover's importance in the defence of the realm and its role as an embarkation point for crossing the narrow seas to France.³ However, as Hilary Turner has argued, even though military objectives may have been the primary reason for wall building, other factors were also important.⁴ This view is endorsed and expanded by Charles Coulson, who believes that town walls may rightly be styled 'castles of the community', but more tellingly, such structures should be seen as 'patrician projects to which the politics of corporate aggrandisement and of oligarchic domination were central'.⁵ More recently, John Steane has considered town walls as part of the archaeology of power where he broadly accepts Coulson's ideas, but feels Coulson's use of Marxist vocabulary and ideology detracts from the debate, preferring instead to see town walls as multifunctional.⁶

These ideas are extremely interesting, but it may be useful to test them further using case studies that consider archaeological finds and the town records, as well as those of the crown. This allows the analysis to extend beyond a consideration of the rhetoric of petitions to the king and other royal documents to investigate the processes involved in the provision and maintenance of walls for particular towns. By so doing it may be possible to find answers to questions like



how 'successful' the town government was over time in its walling programme, what walls signified and what the relationships were between civic ideology and the desire for autonomy, and fortifications? Thus an assessment of Dover's defensive measures may provide a way of investigating late medieval provincial society at a time when it was beset by demographic, economic and social tensions.

The principal documents used are those from Dover's various religious institutions, the chamberlains' accounts, and the calendars of royal records. In addition, this article draws on the archaeological findings published in various Canterbury Archaeological Trust reports, based on the work of Keith Parfitt and his team during the excavations in the areas of Townwall Street and the old Pier District. Although the investigation concentrates on the town's fortifications (the stone and iron of the title) the piece does allude to the symbolic gift exchange between the town and St Thomas (the wax), an ongoing reciprocal exchange that ended only when Becket's shrine was destroyed in 1538.

The essay is in four parts. The first three sections comprise a brief history of the town's defences to the end of the thirteenth century; an examination of the extent and funding of the walls for the late medieval period; and a description of the walls respecting their construction and repair for the same period. The final part assesses the role and place of these structures in Dover's medieval society. Dover Castle is not considered except in terms of its position vis-à-vis the town. Unlike many medieval towns where the defences of castle and town were integrated, the castle fortifications at Dover were completely separate from those of the town (**Map 1**).

The early defences to c. 1300

Following his decisive victory at Hastings, William the Conqueror marched east to secure Dover. According to Domesday, the town was destroyed by fire at this time, but it is not clear whether the account refers to the settlement at the mouth of the Dour valley or the supposed Anglo-Saxon hilltop burgh on the eastern cliff.⁷ Either way the town recovered rapidly, probably in part a reflection of its privileged status. It became one of the head ports of the Cinque Ports Federation and, even during Edward the Confessor's reign, Dover seems to have provided some form of ship service to the crown.⁸ William the First strengthened the defensive position on the eastern cliff, but it was Henry II, his sons and his grandson who built Dover Castle, with its massive keep and curtain wall.⁹ Like most towns of the period, Dover itself appears to have been undefended. Presumably nothing remained of the two Roman forts which had been sited on the west side of the valley mouth (neither influenced the line of the medieval wall, unlike many other medieval towns), but it might have been expected that some sort of fortification would have been contemplated following the siege of Dover Castle in 1216-17.¹⁰ Furthermore, as Turner has shown, the second, and especially the third, decades of the thirteenth century saw a rise in towns repairing their earlier defences, while others constructed new town walls.¹¹ The evidence for these walled towns comes primarily from the crown's provision of murage grants, first recorded under letters patent in 1220, which gave the civic authorities the right to levy a toll, called 'murage', on goods entering the town for sale.¹² This system of funding the cost of construction and maintenance of the town's defences broadly replaced the earlier method, where the local populace, as part of the three-fold feudal obligations, was expected to undertake the work.¹³ Because of their apparently increasing popularity with both the king and the town authorities from the early thirteenth century, murage grants generally provide a useful chronology of town wall building, but it appears a small number of towns may have used other methods to finance this construction. For the twelfth century, evidence for town fortifications can be found in the Pipe Rolls, but other sources, like charters, sometimes indicate the presence of a town wall prior to the town's first murage grant.¹⁴

Dover appears to be such a place because there are a number of surviving charters containing references to the town wall that predate the first murage grant of 1324.15 The earliest known record is to be found in an inspeximus charter of Edward III to St Mary's Hospital at Dover concerning a confirmation charter made to the house by Henry III in 1231.¹⁶ One of the gifts mentioned in Henry's charter is of all the rents with appurtenances given by Turgis de Illeye to the hospital which he held within the walls of Dover, suggesting that there was some sort of town wall at Dover before 1231. Further evidence is to be found in the registers of the other two religious houses at Dover. The copy of a charter in the St Bartholomew's Hospital register records the gift of a house and land in Segatestrete to the hospital in 1277; in the same register is a charter dated December 1280 where the town wall formed the south-western property boundary of land and build- ings in Brummannestrete.¹⁷ Seventeen years later the town wall is again listed as the property boundary, though in this lease it is said to be in Brommannes warde, later called Boureman's ward, the area around Last Lane, according to the Dover antiquarian Bavington Jones.¹⁸ If he is correct, this suggests that the 'Borewall' was part of Dover's western wall, to the north of 'Old Snargate'. Regarding foreign attack and storm damage, for the civic authorities of Dover it was most vulnerable on its southern, seaward flank, which might point to the construction of two sections of wall: one across at least part of the valley mouth, the second an extension inland on the western side. Further evidence of this west wall comes from the Dover Priory register. A grant dated 1304 to the almoner of the priory concerned a piece of land in Nicholas ward which had the 'bourgh-wall' on its north-eastern boundary, and in another charter of a similar or probably earlier date 'Cougate' was said to be in Nicholas ward.¹⁹ Though relatively slight, the evidence does indicate that Dover had some fortifications from the thirteenth century, a reflection of its strategic importance at a time when foreign invasion was seen as likely and in 1295 became a reality.

As part of the growing hostilities between England and France, a large force attacked the town, burning a number of properties, before sacking the priory and carrying off its treasures.²⁰ During the preceding decade Dover had been under attack from other forces, like the great storms of 1288, and prior to that in the mid-1260s Dover citizens had fought on the losing side in the civil war when they supported Simon de Montfort in his struggle against the crown. For Henry III the willingness of the portsmen to engage in such treachery might have been instrumental in his reluctance to grant murage tolls to the Dover authorities during the last years of his reign. Yet, even if this was the case, it is difficult to understand why Dover did not petition the crown for murage before 1324.²¹ Other southern coastal towns, Southampton and Old and New Winchelsea, successfully sought such grants from Henry III and Edward I, and it seems unlikely Dover was sufficiently prosperous to fund a fortifications programme.²²

Presumably, the civic authorities were not intending to rely completely on God and St Thomas of Canterbury to protect them from foreign aggressors and other dangers, though the 'trendyll', or great candle, may date from the same period. The trendyll was the length of the circumference of Dover, and was given to the shrine at Canterbury every three years on the eve of the feast of the Translation of St Thomas (6 July).²³ As a votive offering, it may represent Dover's response regarding the town's need for a saviour, or following its deliverance. Alternatively, rather than as an act of thanksgiving, this gift on behalf of the mayor and commonalty may denote a penitential offering to St Thomas, but in either case was presumably initiated in response to a specific event. Such civic votive gifts were not unknown in western Europe, the first dating from the 1180s. During the late Middle Ages they seem to have been relatively common in northern France and the Low Countries.²⁴ In these cases the candle was the length of the town or city walls, the taper either wound on a great reel, as at Dover, or in the form of a gigantic rope candle. Consequently, the Dover citizens may have been emulating their continental neighbours, but what seems to be unusual is its longevity,

SHEILA SWEETINBURGH

possibly indicating that the townsfolk hoped their relationship with St Thomas would last forever. The symbolism of the candle demonstrated the saint's continued willingness to protect all those within the town walls. As well as the Dover barons or freemen, this included the ancient minster church of St Martin-le-Grand and its parish altars, the parish churches of St Peter and St Mary, and possibly even St James' church (it is far from clear where the eastern wall was located). The royal castle, Dover Priory and the hospitals of St Mary and St Bartholomew were outside, institutions perceived as representative of foreign authority: the king in terms of the castle and St Mary's Hospital, while Dover Priory and its hospital of St Bartholomew were seen by some as subordinate to Canterbury Cathedral Priory.²⁵ Thus, by the end of the thirteenth century, the men of Dover appear to have assembled a number of protective elements in their attempt to safeguard the town and its people.

Late medieval phase: extent and funding

The fifteenth century probably marked the time of the wall's greatest extent, but it is far from clear whether it ever encircled the town, and it did not survive for long. Leland, writing in the 1530s, recorded: 'The towne on the front toward the se hath bene right strongly walled and embattled, and almost al the residew; but now yt is partly fawlen downe and broken down'. He also commented on the extent of the walls, saying that he believed 'The residew of the town ... was never walled', but that this view had been contradicted by a local informant, though the informant had not provided any further details.²⁶ In his description Leland provides a fairly accurate list of the gates on the seaward or southern side, and for the western side as far as Biggin gate to the north, the entry point from London and Canterbury. Yet he did not list any gates on what would have been the eastern flank, which seems to imply that this section of wall had disappeared by the early sixteenth century, assuming that it had ever been built. Although not evidence of the town's enclosure, the murage grants of 1406 and 1412 suggest that this had not occurred by the latter date, because both grants were made 'for the enclosure of the town'.²⁷

Today, the line of the wall is even more difficult to trace because nothing survives above ground level, and only fragments have been excavated along the southern and western line of the wall.²⁸ However, if the wall was completed, the consensus seems to be that it would have been roughly triangular in shape, perhaps enclosing an area of some 6.5ha (16 acres) on the west side of the valley, with a spur wall on the southern flank extending east toward the castle.²⁹ This would have provided a complete wall across the mouth of the valley and so offered



Fig. 1 The Butchery Gate (Hole in the Wall) in 1770 by Thomas Pattenden (pen and ink) from 'Historical Account of the Town of Dover', Thomas Pattenden (unpublished manuscript dated 1802). (By permission of Dover Museum.)

some protection from the sea to the wards in St James' parish, as well as those in the town parishes. Some of the land within the liberty would have been outside the wall, as at Canterbury, for example, but the exact extent of these extra-mural lands will remain a matter of conjecture pending further archaeological excavations along the line of the wall.

Nevertheless, even though nothing of Dover's medieval defences survives, it is possible to find a number of documentary sources for the wall, gates, towers and guns which complement the archaeological findings from the deep excavations made in conjunction with the new sewers and the A20 road works on the south side of the town. During the eighteenth, nineteenth and early twentieth centuries, moreover, several local antiquarians sought to uncover the history of the town defences with varying degrees of success, and some of their reports and illustrations provide details of now lost structures (see **Figs 1 and 2**). In addition, Mark Frost of Dover Museum has looked in detail at the sixteenth-century and later maps of Dover, and he thinks these provide

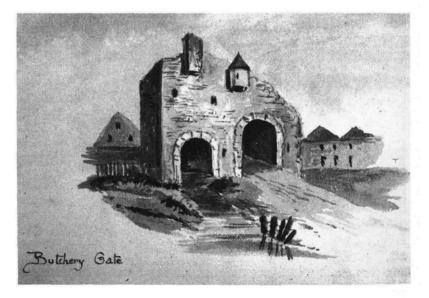


Fig. 2 Painting of Butchery Gate c.1750, watercolour, artist unknown. (By permission of Dover Museum.)

useful information concerning the wall and gates.³⁰ One map in particular, dated 1541, appears to show four gates and two towers (the western tower possibly 'Old Snargate') along the south wall from the eastern cliff under the castle to Snargate, where the line of the wall turned inland (Fig. 3). This appears to fit fairly closely with Leland's list, though he noted three, not two, gates to the east of the river. From the east cliff to the river these gates were: Wardes gate or Eastbrook gate, Cross gate or St Helen's gate, and Segate, le postern or Fisher's gate. Documentary sources also indicate the presence of a tower, called Tynker's tower, which was between Wardes gate and Cross gate.³¹ Though probably contemporary with the wall, Tynker's tower was named after James Tynker, who may have rented it from the civic authorities in the fifteenth century, but as yet no details of the rent paid have been uncovered.³² This part of the wall near the tower, to the south and south-west of St James' church, apparently suffered considerable damage from the sea during the late fifteenth and early sixteenth centuries. As a result, the chamberlains had to pay to fill in a hole in the wall close to the tower in 1474; and in 1501 the town sought to protect the tower and wall by building hedges on the seaward side as part of the 'wyke' sea defences.33 Such measures were insufficient,



Fig. 3 British Library: Cott. Aug 1.ii.10 part. (By permission of the British Library.)

however, because three years later the civic authorities had to spend a considerable sum on repairing the wall there.³⁴ They apparently gave up the struggle in 1509 when the chamberlains paid for the removal of the lead from the tower roof, and in less than a decade the tower had been destroyed by the sea.³⁵

Butchery gate, also known as Standfast tower, spanned the river Dour (Map 1). To the west of the river were Boldware gate and tower, and Snargate, which too had a tower (though whether this tower was 'Old Snargate' before the wall was realigned in the late 1370s and early 1380s is unclear). These substantial gates in the seawall cost the civic officers large sums for construction and maintenance. For example, in 1427-8 lead to the value of 45s. 6d. was procured and a further 47s. was spent on other materials and labour.³⁶ The archaeological excavation of Boldware gate indicated the presence of a portcullis, a feature also known to have formed part of the defences at 'New Snargate'.³⁷ Snargate's portcullis is first recorded in the chamberlains' accounts for 1427-8, possibly signifying major renovation.³⁸ These three gates and towers, Butchery, Boldware and Snargate, and the watchtower at Archcliffe on the Western Heights comprised the town's seaward defences in the Middle Ages, and it seems likely that the 'gret gunne' and later other ordnance was mounted at a number of positions in this area.³⁹

The gates in the town wall to the north of Snargate are rarely mentioned in the chamberlains' accounts, unlike those in the seawall, suggesting that little or nothing was spent on their maintenance, due – perhaps – to their unexposed position. One of the few references to these western gates, that by Southbroke, probably Walgate, and Cowgate, shows that the authorities had paid for substantial building work there in 1377, but whether this was associated with the realignment of Snargate is difficult to establish.⁴⁰ The absence of the western gates from the accounts might also relate to their size, design and use. They were probably smaller and less splendid compared to the southern gates, but it might have been expected that Biggin gate, the only northern gate, would have been a substantial gate-tower (Fig. 3).⁴¹ Its loc- ation, where the road from London and Canterbury entered the town, made it an important entry point, presumably used by members of the royal household, and other lay and ecclesiastical dignitaries.

For the civic authorities, these gates, towers and wall were expensive, their funding beyond the capabilities of the town itself, and in 1324 Dover gained its first murage grant.⁴² Thereafter, the town received a few more grants before 1350, but it was only after this date that the series was fairly continuous until the last in 1483.⁴³ The two earliest were for three years. From 1345 most grants were for five or seven years, and during the second half of the fifteenth century the grants were frequently for ten years. The provision of a grant in itself, however, provides no indication of either the money raised or the amount spent on the town's defences. Consequently, it is only after 1365-6, the date of the earliest extant chamberlains' accounts, that it is possible to ascertain the level of funding available and the sums used. For example, in that year the chamberlains spent almost £30, a considerable amount compared to those paid out by the civic authorities a century later.⁴⁴ Yet it was notably less than the peak period between 1368 and 1382, the chamberlains spending nearly £70, for instance, in 1368-9.⁴⁵

Comparing this level of expenditure with other Cinque Ports, Rye paid out over £400 in 1384-5 and a further £336 four years later when it was fortifying the town.⁴⁶ In part, these large sums were needed because of the town's topographical position, the high level of royal interest in the project and the level of damage caused by the French. who had burned considerable areas of Rye in 1377. Such expenditure was not maintained, and in the fifteenth century the civic authorities provided far less for the town's defences. Similarly, at Sandwich it seems to have been a French raid which persuaded the mayor and jurats to construct and repair the town's defences. Following the devastating attack of 1457, the town officers sought to replace the earlier timber fortifications with stone walls, leading the authorities to spend over £100 per year on at least six occasions between 1462-3 and 1472-3.47 Murage tolls in themselves rarely raised substantial sums, which meant that towns seeking to implement an ambitious building programme needed to acquire other monies, preferably in the form of royal grants or exemptions. Interestingly, the authorities at Dover only occasionally sought additional sources of funding (at times of exceptional expenditure or hardship). Instead they relied heavily on murage tolls, the weekly receipts from the collectors forming an annual feature of the chamberlains' accounts.

Details of the tolls the Dover authorities could levy on travellers, merchants and their merchandise, as well as fish landed at the port were specified in the murage grants of 1345 and 1396. These included a toll of 1*d*. on each horseman, his horse and his groom passing through Dover to or from overseas; while every merchant ship, laden, putting into the port had to pay 6*d*. in 1345, but only 4*d*. in 1396.⁴⁸ During the late 1360s and 1370s murage receipts were particularly high, frequently producing over £50 per year. Yet at a time when expenditure on the wall was at its peak, even these relatively large sums were considered insufficient, leading the town council to seek other methods. Among the options chosen was a tax for wallbuilding and repairs on those who held property along the line of the town wall. This was assessed at 12*d*. per foot for new wall construction and 6d. per foot for old wall repairs. In 1370-1, for example, this tax raised £12 2s. 4d. Among the contributors were John atte Hall whose landholding meant he was expected to provide 60s. for sixty feet of new wall and Thomas Lief, who paid 14s. 6d. due from his tenement for the repair of twenty-nine feet of old wall.⁴⁹ On some occasions the mayor and jurats sought further funds for the wall, like the allocation of part of the local taxes, or maltotes. This method was especially lucrative in 1372-3 when a total of £112 10s. 3d. was raised from a combination of murage, wall tax and the allocation of the maltotes from the mariners of Southbroke and the fishermen of Eastbroke.⁵⁰ The money was directed towards the enclosure of the town and, in particular, the building of a new wall at Mosardes Corner. Another source of income was the occasional gift from a Dover citizen, like William Tidecombe's donation of 6s. 8d. towards the town wall in 1378.⁵¹ Such gifts could indicate the donor's temporal concerns for the welfare of the town, but might equally have been a spiritual response, the town wall seen as comparable to road works, the duty of a good Christian to fund as s/he would under the seven works of mercy.52

It seems likely that the mayor and jurats continued to seek comparable sums for the walls until at least the end of the century, the town receiving murage grants in 1380, 1388, 1396, 1406, 1412 and 1415. However this supposition cannot be tested because the chamberlains' accounts have not survived for the later years of Richard II, nor for the reigns of Henry IV and his son. Thus, even though the civic authorities at the beginning of Henry VI's reign continued to petition the crown for murage grants, when the surviving chamberlains' accounts begin again the actual amounts raised and the sums spent had declined considerably. In 1429-30, for instance, the total collected for the wall from tolls and the merchants' contribution amounted to a mere £10 15s. 7d.; as a result, the chamberlains paid out £10 16s. 7d. on the wall.⁵³ Two years later the town officers managed to raise £27 9s. 10d., spending just over £31 on the wall.⁵⁴ This was exceptional, and the lower average annual expenditure of the 1420s and 1430s may explain why the mayor petitioned the king in 1440 concerning the perilous state of the town and its citizens.⁵⁵ Nonetheless, in part the mayor was responding to the poor condition of the seawall, which allegedly had sustained severe storm damage over the previous decade.⁵⁶ Such petitions were not uncommon during this period, but the frequent passage of royal officials through Dover might imply that it would be more difficult to exaggerate the significance of these problems, indicating that the town was indeed in a poor state. Moreover, it might have been expected that Dover's strategic importance would have been recognised in the form of

further murage grants and possibly other aid. Henry appears to have responded to the town's plight, providing it with an eight-year murage grant in 1443. From 1451, half the tax on the passage to Calais was to be used on the wall.⁵⁷ However, such measures often raised less than £10 per year, the chamberlains frequently restricting their expenditure on the defences to a similar figure. As the town's general economic problems intensified during the final decades of the fifteenth century, spending on the town wall declined even further. In some years, less than a pound was allocated to its maintenance, the town officers engaged in a constant struggle to raise money to repair the seaward wall in particular. Thus it is not surprising that the petitions to Edward IV in 1473 and Richard III in 1483 spoke of the desperate need to repair the wall following 'excessive tempests', the sea, it was said, 'ascending to half [the] height [of the seawall] at every flood'.⁵⁸ Nor did conditions improve during the early sixteenth century, because funding remained at the previously low level, and at the same time the difficulties associated with the harbour were increasingly pressing.

Late medieval phase: construction and repair

Even though there seems to have been some sort of wall with gates from the thirteenth century, archaeological evidence indicates that there was a considerable programme of wall and gate construction and rebuilding, at least between Snargate and Butchery gate, during the late Middle Ages. Documentary evidence apparently substantiates this, the greatest activity occurring during the late fourteenth century.

According to archaeologists, in places the seawall was two to three metres thick, the southern or outer face consisting of neatly cut greensand blocks, the core of the wall comprising coursed flint and rubble with only a little greensand, and a variable north face. The lower courses of the north face of the wall often consisted of large chalk blocks set in clay, while the upper levels were made of mortared greensand blocks, smaller and more roughly cut compared to the seaward side, or split flint nodules. In addition, the seaward side of the wall stood upon a line of timber beams supported by closely spaced timber piles of elm. The lower levels of this face showed signs of having been regularly washed by the sea, suggesting that the wall had been built on the foreshore, where it formed an important part of Dover's sea defences.⁵⁹ Documentary sources confirm many of these findings; the chamberlains, for example, bought large numbers of elms locally.⁶⁰ Suppliers of this timber were predominantly Dover men, who organised the transport of the elms from the place of felling to the construction site.⁶¹ Carts were often used, or more occasionally the roughly hewn logs were brought by boat, and once the elms were at the building site the sawyers or carpenters cut and shaped them into piles or stakes. These were fixed into the ground, but the method employed is difficult to determine except that 'crowes', shovels and 'ernys' were used, suggesting that holes were dug into which the stakes were rammed.⁶² Similarly, it is hard to assess how many elms were required or the price per foot of wall, but in 1424-5 thirty-one pieces of 'pyltymber', presumably elm stakes, cost 7s. at 3d. per piece.⁶³ Planks were laid on top of the piles, the timber roughly cut after felling before it was brought to the site in carts. Once the carpenters had cut the planks to the desired length they were pinned to the elm piles. Again, cost per foot is difficult to ascertain, but in 1378-9 the finished planks were priced at 4d. per foot. In this case the chamberlains paid 30s. 8d. for ninety-two feet of planking.⁶⁴ As skilled craftsmen, the carpenters received 3s. each for a week's work in 1427-8, slightly more than the sawyers and almost twice as much as the labourers, though these men were also given bread and ale.⁶⁵ Such payments are comparable to contemporary day rates in the construction industry, where a skilled worker might expect to receive 41/2d. per day.66

The chamberlains were also buying stone for the wall. Some of this was just referred to as 'stone', but they did buy ashlar or dressed stone from Folkestone, chalk, flint, and, less frequently, ragstone. Transport by sea seems to have been the favoured option. The cost of carriage did vary, but as a commodity, dressed stone was the most expensive, though the price apparently fell over the late medieval period. In 1433-4 the chamberlains paid 16s. 8d. per hundred feet of stone, whereas just over fifty years earlier the same quantity had cost them $24s.^{67}$ Other types of stone seem to have been purchased by the load, like the 143 loads of flint bought for 35s. 10d. in 1378-9, though there is nothing to indicate the size/weight of these loads.⁶⁸ However, the accounts do sometimes record the vendor. Most appear to have been local men, with a few from Folkestone itself. One such was Thomas atte Sole, who sold 13s. 4d. worth of ashlar and £1 6s. 8d. worth of stone to the chamberlains in $1427-8.^{69}$

Concerning the construction of the seawall, archaeological evidence suggests that this did not take place around high tide mark or at least not in the area of Boldware gate, because the sea actually lapped against the lower courses of the wall and the gate passage of Boldware gate was flooded at high tide.⁷⁰ Such findings are substantiated by the documentary sources, porters carrying the stone and chalk to the wall on a per tide basis, presumably either side of low water, and these restrictions were even more important during the construction of the wyke.⁷¹ Masons were responsible for building the wall once the porters had off-loaded the stone from the carts and, like the carpenters, these men were paid on a day rate of 6d. per day. It is unclear how the work was organised, but during the main construction period in the late 1370s, the building seems to have taken place during short, though intensive periods, where between fifteen and twenty masons and a few boys were employed under a supervisor. The time involved might be no more than a few weeks, the majority of the masons employed for one or two weeks only, while a few worked for just a couple of days.⁷² The masons were provided with wooden ladders, scaffolding, and a device called the 'machine', which seems to have been some sort of crane. It was made of wood and, though there are no records of it having wheels, it could be moved around from site to site.⁷³ Such a machine would have been extremely valuable. Most of the greensand blocks at Butchery gate were 0.50-0.80m long x 0.20-0.30m high, but one block at the base of the gate was 1.70 x 0.75 x 0.50m, which would have been difficult to manoeuvre without assistance.74

There are numerous references to lime and its carriage, likewise sand, both necessary ingredients in the bonding agent used to construct Dover's fortifications. Elizabeth Lithgo may have been managing her late husband's business when she was paid 14*d*. by the chamberlains in 1511-12 for carrying lime and sand to the wall.⁷⁵ The lime appears to have been produced locally, using sea coal or wood to fuel the lime kilns, which were probably situated near to the harbour.⁷⁶ Local mariners sometimes bought coal at Sandwich before shipping it round the coast to Dover. One of those involved in the trade in the late fourteenth century was John Gayler, who in 1378-9 was paid 56s. 10d. for twenty quarters of sea coal. He also received 10s. for transporting the coal from Sandwich to Dover, and a further 3s. 4d. for carrying it from his boat to the kiln in a cart.⁷⁷

The chamberlains' accounts also reveal some details about the gates, like the 400 pounds of iron purchased from John Monyn senior in 1370-1 for Snargate, probably linked to the portcullis and/or the gate there.⁷⁸ The earliest extant entries to mention the portcullis are dated 1427-8 and 1428-9, apparently referring to the need for major repairs because 16s. 8d. in total was spent on timber, and a further 5s. 4d. on rope and two pulleys.⁷⁹ Snargate was the scene of even more activity in 1432-3, possibly in response to storm damage when tilers and other labourers were working on the roof.⁸⁰ The masons and others were similarly busy at Boldware gate during the 1420s. The chamberlains bought stone and chalk for the walls there in 1423-4, and six years later spent heavily on repairing the tower, including 24s. 1d. on lead, 11s. 6d. on timber, 16s. on stone and 19d. on nails.⁸¹

Yet evidence from the petitions to the king would appear to imply that the Dover authorities were fighting a losing battle against the sea throughout the mid-fifteenth century, even though they continued to spend at least some money on repairing the seawall and gates. This battle became ever more difficult in the later decades of the century, when the chamberlains recorded with increasing frequency the filling in of holes in the wall and at the gates. At Ward gate, for instance, the area seems to have experienced major problems, the accounts suggesting that there were five, possibly six, breaches during the late fifteenth century. These holes were sometimes expensive to repair. The second at Boldware required the work of at least fifteen men at a cost of 25s. 9d. to the town, equivalent to 15 per cent of the murage revenue collected that year.⁸² In some cases the holes were filled with chalk and rubble, though occasionally earth was used, before apparently finishing the repair with old ashlar stone. Stone supplies seem to have become a problem by the later period, because even though some was still brought from Folkestone, the authorities were having to cart stone from other quarries in the 1470s, and ragstone, rather than ashlar, was increasingly mentioned in the accounts. Possibly even more indicative of the town's difficulties was the use of large quantities of boulders, collected from the rear of the castle and from under the cliff in 1473-4, and again in 1476-7 and 1477-8.83 For the authorities, the falling revenue from murage tolls, a reflection of Dover's poor trade, required such measures, as they struggled to counter the effects of the town's serious decline and the relentless power of the sea.

One strategy was the building of the wyke, apparently first constructed in the early years of Henry VI's reign, though near Snargate it may date from earlier in the century. The wyke was positioned just outside the south face of the seawall between Snargate and Bochery gate, but it may have extended further eastwards because there are references to the wyke 'by Estbroke'. Although primarily constructed of wood, stone was occasionally mentioned, possibly as in-fill. The main process seems to have involved the construction of wattle fences, fixed directly in front of the wall, probably to large elm stakes.⁸⁴ Thorns were apparently packed between the two lines of fences and/or a fence and the seawall. Such work was undertaken by the lath-makers, suggesting that they, too, were restricted to working either side of low tide.⁸⁵ In some places, a platform made of rafters appears to have been constructed on the fences, though whether this was used for the loading and unloading of boats is unknown. The civic authorities may have attempted to strengthen these timber structures using iron chains, possibly in response to the storms of the early fifteenth century, but to limited effect.⁸⁶

Instead, like the walls and gates, the wyke was in almost constant need of repair, causing the civic authorities considerable problems throughout the period. Possibly in response to these adverse conditions, local religious houses did contribute towards the maintenance of the town defences on a number of occasions in the late fifteenth century, the abbot of St Radigund's and the master of St Mary's Hospital selling elms to the chamberlains for the wall.⁸⁷ On occasion these men were more generous, a reflection perhaps of their charitable duty. In 1493-4 the prior of Dover priory and the master of the hospital each donated money toward repairing the wall, and in the same year the prior at Bilsington gave the town a thousand elm stakes.⁸⁸ The hospital and the priory were also involved in the provision of guns, apparently maintaining a number of guns at their own expense, such weapons forming part of Dover's armoury.⁸⁹ From the accounts, it is difficult to ascertain how many guns were available to defend the town, but by 1470 there were several great guns, and by the end of the decade more ordnance had been brought from London via Sandwich, perhaps including the serpentine.⁹⁰ Besides occasional workmanship on the gun stocks and other parts, the chamberlains often needed to purchase or organise the repair of wheels for the guns so that they could be moved about the town, and gun loops were presumably constructed in the town wall. Gunpowder and gunstones were similarly bought, particularly in the 1470s, but the guns may have been fired rarely during the late fifteenth and early sixteenth centuries. Yet the presence of two Dutch gunners in the town in the early 1520s might indicate that the authorities felt it was necessary to employ professional gunners.⁹¹ The increasing importance placed on the town ordnance in the sixteenth century may reflect changes in the civic authorities' perception regarding the value of the town walls. Apparently nothing was spent on maintaining Boldware gate after the 1520s, and it may have been modified in the 1590s to provide a more satisfactory platform for the three-gun battery.92

The role and place of the town wall

For the leading men of Dover, defence was probably the key reason for building and maintaining the town's walls, gates and towers, though the perceived enemy apparently fluctuated between foreign invaders and the sea. Regarding the former threat, Dover was attacked on a few occasions in the thirteenth and early fourteenth centuries, but it is unclear how much damage the town sustained, nor how the citizens responded. Elsewhere, and at a later date, as noted above, such attacks spurred the civic authorities to engage in major

building or renovation, and it is conceivable that the town officers at Dover had acted similarly. Their response, furthermore, was apparently not confined to the material, because they invoked the most powerful defence they could in the form of God and St Thomas, a relationship sustained until the Dissolution. After the French attack in 1338. Dover seems to have escaped further assaults, but the threat remained palpable, especially at times of heightened conflict during the Hundred Years War when the likelihood of hit and run raids by French seamen increased.⁹³ In addition, inter-town rivalry across the Channel might lead to attacks where the pretext of aiding the war effort could be used. Consequently, during the late fourteenth century, the period of greatest known activity concerning the wall, matters of defence against foreigners were presumably uppermost in the minds of the mayor and jurats. Moreover, even though they were unable to sustain this level of activity, both to enclose the town and to keep the wall in good repair during the first half of the fifteenth century, it seems likely that fear remained a strong motivating factor in their continued preoccupation with defence. Nor, presumably, in the later part of the century did this perceived threat disappear completely, but it is difficult to know how effective the civic authorities considered their guns would be against a sustained attack on the town. Such weapons may have been considered a deterrent against a small invading force, the citizens looking to the king and his ships in the early sixteenth century when the enemy seemed more powerful.

Nonetheless, during the later Middle Ages the sea may frequently have been seen as an even greater threat. References to storm damage in the town's petitions to the crown suggest that Dover was suffering such assaults, a view confirmed by the chamberlains' accounts. This idea of the danger posed by the sea seems to have become part of a general perception regarding Dover, because the master of St Mary's Hospital petitioned the Pope for an indulgence on the grounds that its charitable work was at risk, the hospital having sustained damage due to its proximity to the foreshore.⁹⁴ For the civic authorities, their concerns about the seawall presumably related to protecting town properties behind the wall, but possibly even more importantly safeguarding Dover's quay, which may have been sited just outside the wall in association with the wyke. Although matters regarding the harbour as a safe haven for ships of varying sizes would become a vital issue for the authorities in the sixteenth century, the need for seaborne trade to have close access to the town was also significant during the previous century. The carriage of goods and people, either off-loaded from large vessels or as part of the cross-Channel and coastal trade, was a substantial part of the local economy, and the accelerating decline in trade passing through the port during the late medieval period was very serious. This downward spiral in the town's fortunes was a product of a number of factors, not least the problems of silting experienced by many east coast ports and the shift towards a greater use of the western ports, but for the men of Dover a more tangible reason may have been the lack of an adequate seawall to protect the town and its sea-related commercial activities. Thus, the concept of maintaining the seawall and its associated gate-towers was presumably thought worthwhile, even if in reality it became a losing battle against the elements.

Town walls also acted as territorial markers, visual boundaries between the town and those outside, which were important as ways of denoting jurisdiction. This simple statement is fraught with difficulty. however, not least the permeability of the boundary, reflecting a constant movement of people and goods between the town and countryside. Furthermore, the liberty extended into the suburbs, which meant that the wall was a point of crossing, not of exclusion in the daily life of the town. Nevertheless, even if not seen by many as a barrier, gates, in particular, did mark entry points where tolls could be collected, and the closing of the gates at curfew was a way of trying to keep out 'undesirables'. As has been noted elsewhere, the use of such devices to mark different jurisdictions both inside and outside the town was probably significant, leading on occasion to conflict when matters of autonomy and disputed sovereignty were concerned. Similar ideas were presumably significant for the Dover town officers at certain times, but from the surviving records it is difficult to isolate these instances except for major events, like the town's support for Simon de Montfort in the 1260s. Still without being chronologically specific, it seems likely that generally the mayor and jurats at Dover were concerned about civic autonomy, the provision of walls and gates being one of the major ways this was displayed, to be 'read' in physical and symbolic terms. Like the castle, Dover Priory and St Mary's Hospital were walled establishments, which meant their presence may have acted as a catalyst for the town's own activities. For example, the proximity of these two religious institutions to the town's northern wall, where it crossed the road to London, might have spurred the civic authorities to construct an imposing gate-tower at Biggin gate. Other towns certainly did take such opportunities to denote their wealth and prestige. The almost total absence of any records from Dover is problematic, however, unless the gate was one of the earliest civic building projects, and its location away from the sea meant little maintenance was required. Yet, the evidence does suggest that during the late Middle Ages the Dover authorities were at times prepared to spend a large percentage of civic revenue on walls and gates, the modest sums more a reflection of the town's poor economy than their unwillingness to finance a building and maintenance programme.

A number of historians have noted that urban authorities deployed various means - processions, other rituals, seals, town halls, in addition to walls and gates - as symbolic devices in the struggle for civic autonomy, and it is likely that such ideas were equally influential at Dover. The location and grandeur of Dover Castle dwarfed the town, its physical presence a constant reminder of the roles royal officers played in Dover's judicial affairs, symbolising the respective place of the king and his town. For town officers their walls, whatever the material cost, were a reminder that they had secured a degree of autonomy from the crown, a perception reinforced by the design of the town seal. Like other Cinque Ports, a ship was displayed on the obverse, but on the reverse there was the town's other saint, St Martin of Tours, and a three-towered gateway. For the leading townsmen, St Martin might be thought of as 'residing' in the church of St Martin-le-Grand, their ancient minster church rather than at Dover Priory, protected by the town gateway. By combining these elements on the town seal, the designers and their successors in Dover's town hall saw and continued to see themselves as the guardians of the town against various outsiders, potential threats to the town's autonomy. The audience was presumably not confined to the civic officers; such symbols were understood by those inside and outside Dover, even if the recipients did not concur with the sentiments expressed. This likelihood of dissenting voices is important; it is worth remembering Steane's point that walls were multifunctional, with the corollary that such functions might be complex and change over time, as could their symbolic meanings. Towers, for instance, were part of the defensive function of a town's fortifications, but they might be leased to prominent citizens, thereby bringing in much-needed income.95 As a private residence, towers might be envisaged as the property of the leaseholder, who might seek to rent out the tower for his own benefit. This apparent ambiguity may not have had any serious repercussions for the town; presumably the mayor and senior officials vetted lessees, but the potential for problems remained. Although nothing in the records indicates that such difficulties occurred at Dover, the authorities were prepared to pay 5s. towards John Tempilman's tower in 1494 when it need repairing.96

In conclusion, Dover's civic authorities, like many of their counterparts elsewhere, spent considerable time and money on the walls, tower and gates of their town during the late Middle Ages. Even though the total expenditure was far smaller than at some comparablesized towns, this may be a reflection of Dover's severe economic and demographic problems, especially from the fifteenth century, rather than a lack of interest in the town walls per se. Evidence of the time and effort spent on repairing the seawall, in particular, can be seen from archaeological and documentary evidence. This suggests that the threat from the sea was considered the primary hazard in the later fifteenth century, whereas a century earlier foreign invasion might have represented the greater danger. Moreover, for the leading citizens the town wall seems to have been envisaged more broadly, and the multifunctional nature of these structures was a significant feature at Dover. Consequently, in seeking to understand the construction and maintenance of Dover's town wall and what it may have meant to the leading townsmen during this period, it has been particularly valuable to have been able to draw on both documentary and archaeological sources, the relatively rich, though difficult primary materials complemented by the significant but tantalizing archaeological finds.

ACKNOWLEDGEMENTS

An earlier version was given as a paper at the Canterbury Centre for Medieval & Tudor Studies, University of Kent, the audience providing a number of interesting comments. The writer would like to thank Keith Parfitt and Barry Corke of the Canterbury Archaeological Trust for their help in the preparation of this article, the former for his expertise regarding the archaeological findings from Dover and the latter for drawing the map of medieval Dover. In addition, Mark Frost very kindly allowed the writer access to his unpublished notes on Dover maps, which was also extremely helpful.

ENDNOTES

- ¹ BL: Add. MS 29618B, ff. 304-4v.
- ² The first known reference to guns is dated 1427-8; BL: Add. MS 29615, f. 145v.

³ Though presumably rhetorical, Matthew Paris' description of Dover Castle (1216) as the key and redoubt of England may have been indicative of contemporary ideas; *Historia Anglorum*, ed. F. Madden, vol. 2 (1189-1245), Rolls Series (London, 1866), 179.

⁴ She noted that of the 249 towns which were incorporated before 1520, 108 were walled. In addition to size, she felt ownership was a significant factor in the likelihood that a town would or would not be walled; Turner, H., *Town Defences in England and Wales: an architectural and documentary study AD 900-1500* (London, 1971), 15-16, 91-2.

⁵ Coulson, C., 'Battlements and the Bourgeoisie: Municipal Status and the Apparatus of Urban Defence in Later-Medieval England', in S. Church and R. Harvey (eds), *Medieval Knighthood V.* Papers from the sixth Strawberry Hill Conference 1994 (Woodbridge, 1995), 122, 195.

⁶ Steane, J.M. The Archaeology of Power (Stroud, 2001), 194-205.

⁷ Domesday Book: Kent, ed. P. Morgan (Chichester, 1983), D, 1 a. According to Allen Brown, a large pre-Conquest church had been established upon the eastern cliff above the town, adjacent to an old Roman lighthouse. It may have been associated with the minster in the valley and served by secular canons, the church apparently set within some sort of defended hilltop *burgh*; Allen Brown, R., 'Report of the Summer Meeting of the Royal Archaeological Institute at Canterbury 1969: Dover Castle', Archaeological Journal, 126 (1969), 101-103; Allen Brown, R., English Castles, 3rd ed. (London, 1970), 44-6.

⁸ Domesday Book: Kent, ed. P. Morgan (Chichester, 1983), D, 1 a. Murray, K.M.E., Constitutional History of the Cinque Ports (Manchester, 1935), 13-15.

⁹ Together these kings spent over £6,000 on the construction of Dover Castle; Brown, R.A., Colvin, H.M. and Taylor, A.J., *The History of the King's Works: the Middle Ages*, vol. 2 (London, 1963), 632-4.

¹⁰ Derek Renn has argued that after the 1215 siege at Rochester, the authorities remodelled the town defences as part of a wide-ranging policy encompassing the castle and town; it seems feasible this occurred at other towns, like Dover and Winchester (personal communication). [See also pages 343-363 in this volume.]

¹¹ Turner, Town Defences, 22-5.

¹² Calendar Patent Rolls [CPR] 1216-1225, 238. Other royal records similarly contain information concerning the desire for civic fortifications during the early thirteenth century; Coulson, 'Battlements and the Bourgeoisie', 141-2, n. 92.

¹³ These basic feudal obligations were *fyrd-bote* (military support), *burgh-bote* (the maintenance of defences) and *bridge-bote* (upkeep of roads and bridges); J. Richardson, *The Local Historian's Encyclopaedia* (New Barnet, 1974), 65.

¹⁴ Turner, Town Defences, 13-15, 30-3.

¹⁵ CPR 1324-1327, 51.

¹⁶ BL: Add. Ch. 16429. There may be an even earlier reference: Dover Priory register has a charter of Prior Reginald which speaks of St Mary's Hospital as founded outside the walls of Dover town; Lambeth Palace Library [LPL]: MS. 241, f. 41v. The only prior called Reginald was in office between 1212 and 1229; Haines, C., *Dover Priory* (Cambridge, 1930), 209.

¹⁷ Bodleian: Rawlinson MS B.335, ff. 19v, 16v.

¹⁸ Ibid., f. 16v. Bavington Jones, J., Annals of Dover (Dover, 1938), 384.

¹⁹ LPL: MS. 241, ff. 73v, 74.

²⁰ Haines, C., Dover Priory (Cambridge, 1930), 244-7.

²¹ CPR 1324-1327, 51.

²² CPR 1258-60, 126; 1258-1266, 226; 1292-1301, 147.

²³ Details concerning the trendyll were recorded by the shrine keepers in the early fifteenth-century customary of the shrine of St Thomas; BL: Add. MS 59616 f. 9. The Rev. Peter Rowe kindly allowed the writer to use his translation of the Customary in his dissertation; Rowe, P., 'The Customary of the Shrine of St Thomas Becket, a translation of the Customary with notes', unpublished M.A. dissertation, University of London (1990), 91.

²⁴ Velden H van der, The Donor's Image: Gerard Leyet and the Votive Portraits of Charles the Bold (Turnhout, Belgium, 2000), 240-1.

²⁵ Haines describes the long-running and expensive dispute between Dover Priory and Canterbury Cathedral Priory over sovereignty; Haines, *Dover Priory*, 81-6, 222, 225-6.

²⁶ Leland's Itinerary in England and Wales, parts VII & VIII, ed. L. Toulmin Smith, 1964), 49, 63.

²⁷ CPR 1405-1408, 143; 1408-1413, 434.

²⁸ Parfitt, K. 'The A20/Dover Sewers Project', Canterbury Archaeological Trust, 16th Annual Report (1991-2), 11-13.

²⁹ Keith Parfitt, personal communication. [Cf. Canterbury's wall encloses 53ha; Rochester's 7ha.]

³⁰ Frost, M., 'Some notes on Early Maps of Dover', unpublished.

 31 It is not clear how many towers or tower houses (in the wall or free standing) existed in Dover, but there were at least seven apart from the gate-towers. Walter Tuk's tower was close to Cowgate; he bequeathed the rent to his wife in his will of 1498; Centre for Kentish Studies [CKS]: 33/1, f. 15.

 32 Occasionally James Tynker worked on behalf of the town, as he did in 1477. When he resided in the tower is not clear, but he appears to have been there during the following decade; BL: Add. MS 29616, ff. 178, 252v.

33 Ibid., f. 133; Egerton MS 2107, f. 84v.

³⁴ BL: Egerton MS 2107, f. 87v.

³⁵ Ibid., f. 97v; Egerton MS 2093, f. 12.

³⁶ BL: Add. MS 29615, ff. 143-4v.

³⁷ Parfitt, K. 'The A20/Dover Sewers Project', Canterbury Archaeological Trust, 17th Annual Report (1992-3), 14.

³⁸ BL: Add. MS 29615, ff. 145v, 149.

³⁹ BL: Add. MS 29615, f. 148v; Add. MS 29810, f. 11v; Add. MS 29616, ff. 64v-5. The defences at Archcliffe included a ditch and banks, and two bridges, the 'old' and the 'new'; BL: Egerton MS 2107, ff. 19v, 33, 40v; Egerton MS 2092, f. 238.

⁴⁰ BL: Add. MS 29615, ff. 49v, 50v.

⁴¹ The first reference in the chamberlains' accounts to the maintenance of the gate area was for seven loads of stone and six of sand to pave the way from the market place to Biggin gate in 1550; East Kent Archives [EKA]: Do/FCa 1, f. 164v.

⁴² CPR 1324-1327, 51.

⁴³ *CPR* 1324-1327, 175; 1343-1345, 442, 457; 1350-1354, 429; 1361-1364, 249; 1367-1370, 111; 1370-1374, 168; 1374-1377, 423; 1377-1381, 428; 1385-1389, 505; 1391-1396, 691; 1405-1408, 143; 1408-1413, 425, 434; 1413-1416, 17; 1422-1429, 139; 1429-1436, 496; 1436-1441, 392; 1441-1446, 220; 1446-1452, 427; 1467-1477, 393; 1476-1485, 462.

⁴⁴ BL: Add. MS 29615, f. 5v.

45 Ibid., f. 13.

⁴⁶ Turner, Town Defences, 162-3.

⁴⁷ Ibid., 164-5.

⁴⁸ CPR 1343-1345, 442; 1391-1396, 691.

⁴⁹ BL: Add. MS 29615, f. 17.

⁵⁰ Ibid., f. 26v.

⁵¹ Ibid., f. 52v.

⁵² These were: feeding the hungry, giving drink to the thirsty, giving hospitality to a stranger, visiting the sick, clothing the naked, ransoming prisoners and burying the dead.

⁵³ Ibid., ff. 160v, 161.

⁵⁴ Ibid., ff, 178v-9.

⁵⁵ The petition in 1440 stated that Dover was nearly half-empty of inhabitants with many of the town buildings being severely decayed; *CPR* 1436-1441, 392.

⁵⁶ The 1435 petition referred to the damage sustained by the walls and gates due to the late frequent storms; CPR 1429-1436, 496.

⁵⁷ CPR 1441-1446, 220; 1446-1452, 427.

⁵⁸ CPR 1476-1485, 462.

⁵⁹ Parfitt, 'Dover Project' (1992-3), 13-14.

⁶⁰ For example, elms came from Folkestone in 1374-5, from Waldershare in 1426-7, and from River two years later; BL: Add. MS 29615, ff. 33, 119, 153.

⁶¹ The combined cost of buying and transporting the elms from Waldershare was 4s. 8d., and from River 2s. 10d. and 2s. 6d.; *ibid.*, ff. 119, 153, 161.

62 Ibid., ff. 142v, 148v, 171v.

63 Ibid., f. 108v.

64 Ibid., f. 64.

65 Ibid., ff. 144v, 145.

⁶⁶ Dyer, C., Standards of living in the later Middle Ages (Cambridge, 1989), 215.

 67 Thomas atte Sole was the seller on the latter occasion; BL: Add. MS 29615, ff. 64, 188v.

68 Ibid., f. 61.

69 Ibid., ff. 143v, 144.

⁷⁰ Parfitt, 'Dover Project' (1992-3), 14.

 71 In 1423-4, for example, John Hope carried stone for three tides and John Kyweys for one, while other labourers were paid for working on the wyke during various tides; BL: Add. MS 29615, ff. 98v, 99.

⁷² Ibid., f. 48v.

73 Ibid., ff. 34v, 37, 47v, 48, 56v.

⁷⁴ Keith Parfitt, personal communication.

⁷⁵ BL: Egerton MS 2092, f. 63v.

⁷⁶ BL: Add. MS 29616, ff. 25v, 83v, 117, 118, 133v, 147, 152v, 164, 164v, 166, 179v, 180, 208, 213, 226

⁷⁷ BL: Add. MS 29615, f. 61v.

⁷⁸ Ibid., f. 16v.

 79 Ibid., ff. 145v, 149. Another portcullis is referred to in the chamberlains' accounts (1511-12), linked to 'the new gate', though the location of this gate is unclear; BL: Egerton MS 2092, ff. 64, 64v; Add. MS 29618A, ff. 56, 56v.

⁸⁰ BL: Add. MS 29615, f. 187.

⁸¹ Ibid., ff. 98v, 160v.

⁸² The hole was apparently packed with thorns and faggots before it was sealed, using mortared stonework; BL: Add. MS 29616, ff. 132-2v, 133v.

 83 Such stone was relatively cheap, the only expense being collection and transport. In April 1476 Robert Smethyot received 19*d*. to gather boulder stone and Thomas at Wode was paid 2*s*. for carting the same stone for two tides; *ibid.*, 163v.

84 BL: Add. MS 29615, f. 144.

 85 In November 1476, thorns and binders were carried to the hedges, the porters working on a per tide basis. Over the next three months similar work was carried out; BL: Add. MS. 29616, ff. 162-3v.

⁸⁶ BL: Add. MS 29810, ff. 18v, 38.

87 Ibid., ff. 57v, 83v; Add. MS 29616, f. 100.

⁸⁸ BL: Egerton MS 2107, f. 39v.

⁸⁹ In 1475-6 the prior and master were to see to the repair of their guns as they had done in times past; BL: Add. MS 29616, f. 136.

90 Ibid., ff, 178, 197v, 263.

 91 There were some problems between the gunners and the town, the chamberlains paying them before discharging the Dutchmen from their duties; BL: Egerton MS, f. 238v.

⁹² BL: Add. MS 29618B, f. 250v. EKA: Do/FCa 3, ff. 272v, 273v, 276, 310, 340v, 370.
⁹³ CPR 1338-1340, 17.

94 Calendar of Papal Letters, 1495-1503, vol. 17, pt 1, 4.

⁹⁵ At Southampton, for instance, the situation was slightly different. There the upkeep of the towers in the town wall was the responsibility of 'important individual burgesses, religious institutions, and to the trades acting in concert'; Platt, C., *Medieval Southampton* (London, 1973), 172.

⁹⁶ BL: Egerton MS 2107, f. 42v.

SHEILA SWEETINBURGH