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## Marshmen at Work: Dover Harbour, 1583

Despite its long history and status as a channel port, Dover has never possessed an effective natural harbour.[1] Artificial harbour works began to be constructed from about 1500, but a limited understanding of tidal currents meant that these early efforts tended only to exacerbate problems of silting. Work of the 1530s, in particular, gave rise to a large sandbar across much of Dover Bay, which by the 1570s was threatening to close the port. The concept emerged, however, of stabilising the sandbar as a permanent seawall, and creating an enlarged and remodelled harbour in the lagoon behind it. The key to the operation would be to establish part of the lagoon as a backwater 'pent', or reservoir, fed by the River Dour, by means of which the harbour could be periodically scoured. The principal technical challenge therefore became to construct watertight walls for the pent, partly on the unstable foundations of the sandbar, and partly across the lagoon.

A number of alternative schemes were projected, and in 1582 some preliminary work undertaken, but with limited success. The treasurer of works in this first year was Sir Thomas Scott of Scott's Hall, a substantial landholder on Romney Marsh, and in March 1583, on the strength of twenty-five years experience overseeing seawall-building there, he proposed a new approach using the tried and tested practices of the marshmen.[2] He brought 'foure of the principall officers, and foure of the most expert

workmen of Romney Mersh' to inspect the site, and concluded that 'the same workmanship which they use in Romney Mersh, will be very Serviceable, and of Sufficient assurance to bring to pas that which is required at the harborogh of Dover'.[3] Several weeks of lobbying and debate ensued, but Scott, supported by his cousin, Reginald Scott, a surveyor of the Marsh for four years, and by Reginald Smith, common clerk there for thirty, clearly had a strong case. When workmen from the Erith and Plumstead marshes, representing one of the rival schemes, were questioned on their techniques, their most pertinent responses came from one of their number named Marshall drawing on his earlier experiences at Broomhill on Romney Marsh.[4] Edward Boys, one of the commissioners for the harbour, declared that if 'the probabylitie of reason, the demonstration of the lyke for walles in Romney Marsh, with the warrantie of those honest skilfull marsh artyzans be of any accompt, than suerly ... this work which for charge semed importable, and for danger very doubtfull, will prove far otherways & very fayzible'.[5]

On 9 and 10 April, therefore, it was agreed by the commissioners that 'the Romneyshmarshemen shall undertake that parte of the woorke whiche we fynde of greatest Difficultie', namely the pent walls. 6A start-date was set at 13 May, in the relatively slack period between barley and hay harvests, and calls for labourers were despatched to local market towns. Reginald Scott subsequently wrote a detailed narrative of the project, published four years later in the second edition of Holinshed's *Chronicles*.[7] The Romney method, he emphasised, comprised not merely the technical practices of wall-building, but also the organisational techniques of managing, co-ordinating and supplying an army of workmen. The undertaking 'would have amazed anie man unacquainted with Romeneie marsh works, from whense the patterne hereof was fetcht, and the officers and chiefe workemen thereof brought by sir Thomas Scot to Dover. These works were digested and ordered by them, even as a battell is marshalled by officers of the feeld'.[8]

The three 'cheefe directors' of the project were marshmen: John Smith, the expenditor, responsible for day-to-day finances, 'an expert man trained up in Romneie Marsh in those affaires, trustie, diligent, and everie waie sufficient'; Richard Coast; and William Norris, later bailiff of Romney Marsh. But Scott also pays tribute to the ordinary workmen who risked their lives, often up to their waists or shoulders in water. He highlights the contribution of 'a poore man named John Bowle, borne and brought up in Romneie marsh, whose dexteritie of hand, fine and excellent inventions in executing difficult works, and whose willing mind and painfulnesse for his owne part, with furthering and incoraging of others, ought in some calling to have beene honored, and in his poore estate should not be forgotten'.[9]

Despite early concerns, suitable wall-building materials were readily found at Dover.[10] The three principal components were earth, 'a haselie mould … whereof the greatest part of the wall consisted'; chalk, 'which mingled and beaten togither with the earth, did make the same more firm, and was placed in the midst of the wall'; and 'sleech', or sludge, which, 'being beaten with beetles [mallets] to the sides of the wall, would by and by cleave so fast and close thereunto, as thereby the wals were strengthened'.[11] The final stage was to 'arm' the wall with faggots and thorn. 'First beginning at the foot of the wall, they laid downe a row of fagot, through everie one of the which they drive a needle or stake about foure foot long, having an eie or hole at the great end. Then doo they edder it with thorne and other provision for that purpose, and lastlie drive a keie or woodden wedge (being one foot and a halfe long) through the eie of the needle to keepe downe the edder, which staith downe the fagot.'[12] An early estimate was that 60,000 faggots, needles and keys, 5,000 lighter 'baven' faggots, and 400 beetles would be required; and a mounted 'purveior' was employed solely to maintain supplies of arming materials.[13] The unfinished ends of the walls were temporarily armed overnight and even over the mid-day break, to minimise erosion by the tides.[14]

The key piece of equipment was the 'court', a narrow cart for moving earth or stones. The standard court at Dover was drawn by a single horse, and measured 5' by 2' by 16" deep (1. 5m x 0. 6m x 0. 4m); but two-horse 'double' courts were used for the heavier work of carrying sleech. This reliance on horsepower made a change from customary Romney practice, where ox-drawn courts were the norm: 'in Romneie marsh there are everie yeare commonlie imploied at one time about making or mending of some one wall 200 courts at the least, in each court for the most part being two oxen'.[15]

Preparatory work commenced at the beginning of May with just six courts in attendance, but by the start of large-scale operations on 13 May some 200 were available, more than had been anticipated. It was therefore decided to begin work simultaneously on both the 'long wall', built on the sandbar, and on the shorter but more challenging 'cross-wall' over the lagoon: Richard Barrey, lieutenant of Dover Castle, took charge of the former operation, and Sir Thomas Scott the latter. The pattern of work was established by 'Romneie marshmen, and such as knew those works', but volunteers were drawn from as far afield as Sevenoaks and Maidstone, and by 27 June there were 542 courts and almost 1000 men on site. Newcomers eventually had to be turned away because of the limited pasture available.[16]

To maintain a steady flow of materials, specialist workers were stationed to keep the courts moving: 'guiders' to assist them through known trouble-spots; 'untingers' to loosen their tackle for unloading; 'shelvers' to empty them; and 'tingers' to reattach the tackle. 'The driver never staid, but went foorth for a new lode: the tinger runneth after and pulleth up the court, and fasteneth the tackle, and goeth presentlie with speed to doo likewise to another. 'There was further division of labour on the wall itself, where the workmen included ordinary labourers to 'shovell abrode and laie even the earth, chalke, and sleech'; 'scavelmen' to apply the coating of sleech; 'beetlemen' to beat the sleech to the sides of the

walls, to break up chalk and to level the earth; and 'armors' to fix the faggots and thorn. The relative skill-levels of these specialisms can be judged from their wage rates: labourers received 6d or 8d a day; guiders, untingers, tingers and beetlemen 8d; shelvers, picked from the 'strongest and nimblest men', 10d; scavelmen 12d; and armors either 12d or 16d. Scavelmen and armors, who needed highly specialised skills, were invariably marshmen. A court with horse and driver received 12d a day: this compared with only 10d a day on Romney Marsh, but there the drivers had the bonus of superior pasture for their oxen. Double courts attracted double payment. Some owners supplied their courts in pairs, with just one driver between them: as one court was being driven, the second would be loaded by a less skilled 'filler'.[17]

The day began at 5 a.m., when the available labourers and drivers were entered on the books of the expenditor and clerk-of-works. Work ran from 6 a.m. to 6 p.m., with a two-hour mid-day break (11 a.m.-1 p.m.), subject to variations imposed by the tides. The courts were frequently left loaded overnight, ready to move off in the morning: the front driver in the train needed to be 'a sufficient and a diligent person, and that court to have a good gelding: for as he lead the danse, so must they all follow'.[18] Sunday was a day of rest, when Sir Thomas Scott generally returned home to Scott's Hall.

The end of both morning and afternoon work was signalled by a 'flag of libertie'. Half an hour before the due time, the drivers would take up a traditional song, 'made and set in Romneie marsh', in a battle-of-wills with their overseers. The refrain ran:

> 'O Harrie hold up thy hat, t'is eleven a clocke,
> and a little, little, little past:
> My bow is broke, I would unyoke,
> my foot is sore, I can worke no more.'

Scott tells us that 'the tune or rather the noise thereof was extraordinarie, and (being dilivered with the continuall voice of

such a multitude) was verie strange'. When the flag was seen, 'there was a generall shout made by all the workers: and wheresoever any court was at that instant either emptie or loden, there was it left, till one of the clocke after noone or six of the clocke in the morning, when they returned to their businesse'. Towards the end of the project, Sir Thomas Scott fell ill, and the workers adapted their song, so that 'in steed of calling to Harrie for their dinner, they called to God for the good health and returne of their best freend'. Scott recovered, but his wife, who had selflessly nursed him while pregnant with twins, sadly ded.[19]

Reginald Scott's narrative lends the wall-building an heroic character. '[I]t was a woonder to see how the multitude of carriages (being well plied) prevailed, even over the floud: which though it rose exceeding fast, and was come to the verie brinke or uppermost lane of the wall, a new course of courts came from time to time and supplied the want; which if it should have staied a minut longer, would have turned to great losse; for they could have wrought no longer that tide. 'The Dour was not diverted, as some of the rival engineers had advised, and so 'they wrought alwaies in the water, which was verie discommodious'. Yet despite the dangers, morale remained high. '[W]hen the flood came, the chanell did so suddenlie swell, as manie horsses with their courts and drivers which rode in them were overtaken, or rather overwhelmed with water, and were forced to swim, with great hazard of life, though therat some tooke pleasure. For sometimes the boies would strip themselves naked, and ride in that case in their courts through the chanell, being so high, as they were ducked over head and eares: but they knew their horsses would swim and carrie them through the streame, which ministred to some occasion of laughter and mirth. 'Particularly perilous was the cutting of a sluice in the cross-wall.

'Manie were astonied to behold the dangerous case of the workemen, and diverse departed from the place as being loth to see the poore mens destruction. Wherein the said Reginald Smith,

and the Romneie marshmen dealt with great dexterisie and courage; when all other almost had given it over, persisting in continuall and extreame travell thereabouts, by the space of two daies and one night without intermission. 'In the event, there were no fatalities and only two minor casualties, sustained at the chalk quarry; and the workforce even remained free from plague in what was elsewhere a virulent plague-year.[20]

By 21 July, Sir Thomas Scott could report that the pent was effectively complete.[21] The final dimensions of the cross-wall were 40 rods (201m) long, 90' (27m) broad at the bottom and 50' (15m) at the top; those of the long wall 120 rods (603m) long, 70' (21m) broad at the bottom and almost 40' (12m) at the top. 22The marsh officers were acknowledged to be the most 'experienced in these maryne frontier actions' to advise on continuing problems of degradation, and they urged the permanent employment of a ten-man maintenance team, but it is not clear that this recommendation was adopted. 23The construction of the harbour proper, in which the marshmen were not involved, proved to be a more protracted affair, and would not be finished for another decade.

The basic footprint of the pent, remodelled in the nineteenth century as Wellington Basin, survives today as part of Dover Marina, a little-acknowledged monument to Romney Marsh expertise. The detailed evidence from Dover Harbour for Romney working practices usefully complements that available from the Marsh itself – notably the early seventeenth-century description of work on Dymchurch Wall which Dorothy Beck has published, in which much of the technical detail, and much of the terminology, is identical. 24 Clearly, Romney methods were adapted to local circumstances; and equally clearly, Reginald Scott's narrative is celebratory and partisan, and perhaps not to be trusted in every detail. But these cautions aside, the Dover material, and Scott's eye-witness testimony in particular, provide numerous rich and valuable insights into the technical and social context in which Romney walls of the early modern period were constructed.

**NOTES**

1. For Dover Harbour and the 1583 works, see Martin Biddle and John Summerson, 'Dover Harbour', in H. M. Colvin (ed. ), *The History of the King's Works*, vol 4 (HMSO, 1982), pp.729-64; and E. H. Ash, *Power, Knowledge, and Expertise in Elizabethan England* (Baltimore and London, 2004), pp.55-86.
2. The National Archives (TNA) SP 12/159/11/I: Dover Harbour commissioners, answers to articles, [8 Mar 1582/3]. TNA SP 12/159/17: Scott to Sir Francis Walsingham, 10 Mar 1582/3.
3. TNA SP 12/159/44: Scott to Walsingham, 24 Mar 1582/3.
4. TNA SP 12/159/50: articles of Erith and Plumstead marshmen, [29 Mar 1583].
5. TNA SP 12/159/45: Boys to Walsingham, 25 Mar 1583.
6. TNA SP 12/160/13/I: articles agreed by the commissioners, 9 & 10 April 1583. See also TNA SP 12/160/6: commissioners to the Privy Council, 10 April 1583; and TNA SP 12/160/13: Scott to Walsingham, 18 April 1583.
7. Raphael Holinshed, *The First and Second Volumes of Chronicles*, 3 vols (2nd edn., London, 1587), vol. 3, pp.1491-1547; reprinted as *Holinshed's Chronicles of England, Scotland and Ireland*, 6 vols (London, 1807-8), vol. 4, pp.845-68. References below are to the 1587 edition (hereafter 'Holinshed').
8. Holinshed, p.1542.
9. Holinshed, pp.1542-5.
10. TNA SP 12/159/45: Boys to Walsingham, 25 Mar 1583.
11. Holinshed, p.1543. The word 'haselie' implies a mixture of sand or gravel, clay and earth.
12. Holinshed, p.1544. Cf. M. Teichman Derville, *The Level and the Liberty of Romney Marsh in the County of Kent* (London, 1936), pp.25-7.
13. TNA SP 12/160/13/I. Holinshed, p.1544.
14. Holinshed, p.1545.
15. Holinshed, pp.1542-3.
16. Holinshed, pp.1542-3. On 17 July, there were 560 courts: TNA SP 12/161/36: commissioners to Walsingham. Reginald Scott says the total rose to 600, though this may be a rounded-up figure.
17. Holinshed, pp.1542; 1544-5. According to Scott, though his reasoning seems flawed, a master who provided two courts, two

horses, one driver and one filler received a daily payment of 2s 10d (12d for each court, plus 10d for the filler).

18. Holinshed, p.863.
19. Holinshed, p.1546.
20. Holinshed, pp.1546-7.
21. TNA SP 12/161/39: Scott to Walsingham, 21 July 1583.
22. Holinshed, pp.1546-7. Sir Thomas Scott gives more detailed dimensions in TNA SP 12/161/39.
23. TNA SP 12/175/40: commissioners to Walsingham, 21 Dec 1584. TNA SP 12/175/41: John Hill to Walsingham, 22 Dec 1584.
24. Dorothy Beck, 'The Drainage of Romney Marsh and Maintenance of Dymchurch Wall in the Early Seventeenth Century', in Jill Eddison (ed.), *Romney Marsh: the Debatable Ground*, OUCA Monograph 41 (1995), pp.164-8.

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## The Rye and hinterlands project and the research volunteers

How do you run a serious research project with volunteers? I have heard this question once or twice over the past few months and here are some answers. This is the way many historical and archaeological research projects work nowadays, for example one which is updating the Victoria County History on the modern maritime history of the South East. Greenwich University recently held a symposium on collaboration between archivists, local historians and professional historians in Sussex, Kent and Nord Pas de Calais. Some pointed to the difficulties of such collaboration, others to its potential. The Trust and its Small Ports and Rye projects were held up as examples of good practice. The Trust has always worked in a multidisciplinary way and with the involvement of people with great local knowledge.

The term volunteer perhaps suggests a lack of skill but this is far from the truth. Several of the people working on this project have a deep knowledge of Rye and marshland history and have been