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Editorial

This issue of the *Glaven Historian* contains eight papers and again demonstrates the wide range of research undertaken by members of the Society and others.

In three linked articles, Diana Cooke, Jonathan Hooton and Nichola Harrison look at the work of John Darby, the pioneering Elizabethan land surveyor who drew the 1586 map of Blakeney harbour, including a discussion of how accurate his map was and an examination of the other maps produced by Darby. Adrian Marsden discusses the Cley tradesmen who issued tokens in the 1650s and 1660s, part of a larger project to research the seventeenth century tokens of Norfolk. Three more articles have a maritime flavour: John Wright examines the charts of the coast of Norfolk made before 1700, with a focus on the Blakeney haven; Jonathan Hooton looks at the career of William Allen, a shipowner from Weybourne in the 19th century, while Serica East has pulled together some historic photographs of the Billyboy ketch *Bluejacket*, one of the last vessels to trade out of Blakeney harbour. Lastly, Eric Hotblack looks at the charities established by Christopher Ringer, who died in 1678, in several parishes in the area.

The next issue of *Glaven Historian* is planned for 2020. If anyone is considering contributing an article, please contact the joint editor, Roger Bland (publications@bahs.uk).

Richard Kelham
Roger Bland
Editors

John Darby: Land Surveyor in East Anglia in the late sixteenth century

Diana Cooke, Jonathan Hooton and Nichola Harrison

Fig. 1. Cooke version of the 1586 map

Synopsis:
Over the past 25 years, interest in the work of John Darby has been steadily increasing with early contributions from Raymond Frostick and Jonathan Hooton. Looking to the future, there is a PhD thesis on Darby being prepared by Vivienne Aldous. Meanwhile, the following articles by Diana Cooke, Jonathan Hooton and Nichola Harrison delve a stage further into his talents.

The first one looks at the context of map-making in the 16th century and the different influences on Darby in making one particular map. Two further articles explore Darby's accuracy as a Land Surveyor and discuss specific characteristics of his map-making across East Anglia.

1. Darby's Map of Blakeney Haven & Port of Cley (Diana Cooke).

Introduction

For many years a copy, made in 1846, of a 16th century map of *Blakeney Haven & Port of Cley* hung at the bottom of the staircase of our old house in Blakeney (Fig.1). We did not take much notice of it until the early 1990s, when members of the newly formed Blakeney History Group wrote a couple of articles about it.[1] From these, a picture emerged as to how and why the original (now lost) was commissioned. It was a while, however, before we had any clues as to who made the 1586 map.

John Darby

We now know the map was, almost certainly, the work of John Darby. He was born in the 1550s, probably in Bury St Edmunds where his father was a carpenter. In 1550, during Edward VI's reign, a grammar school was founded in Bury and we can only surmise that this is where Darby was educated. In later life, he lived in Bramford, near Ipswich. He made a will in 1606 from which it can be gleaned that he owned a sizeable estate. He died in 1609 leaving a wife, Elizabeth, and six children.

Darby had a distinctive drawing style in which he made use of sea monsters and rural characters to decorate his maps. Like other Elizabethan map-makers, he would have belonged to the upper levels of society where the ability to draw competently was highly valued.[2]

There is conjecture that Darby's name featured on the original 1586 Map, below the central cartouche, but was damaged. When the 19th century copy was made, the artist re-interpreted what might have been iDARBY ('j' was not then a written letter) for 'hMARY'.[3]

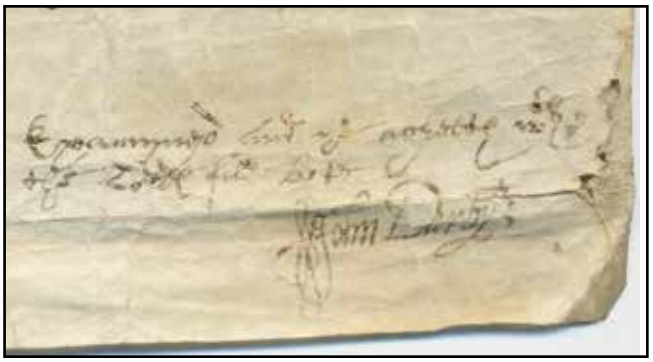


Fig. 2. Darby's signature. *By permission of the Earl of Leicester and the Trustees of the Holkham Estate (DD/Bu79)*

Context of Map

Back in the 14th century maps were rare. They were usually *mappae mundi* or maps of the world. The Gough Map which is the earliest route map of England (approx. 1360), surprisingly, includes Blakeney and its Carmelite Friary.[4] By the beginning of the Tudor age, the concept of maps was still little known, other than for purposes of navigation or exploration, but this began to change in the 16th century. Places and plans began to be drawn as pictures or bird's eye views, using imagination and perspective. Leonardo da Vinci's interest in birds and flying influenced this manner of presenting terrain, notably in his map of *Imola* (1502).[5] Today, we take such views for granted with the advent of Google Maps but, back then, this was an innovative development.

During the reigns of Henry VII and VIII, Italian engineers were at the forefront of building military defences, especially in the form of bastions. Fearful of French invasion in the 1540s, they were employed by Henry VIII to build up the English defence systems. The engineers introduced mathematical skills and measuring techniques which had a lasting impact on the future work of English surveyors.

Meanwhile, following the Dissolution of the Monasteries, large tracts of land were dispersed amongst nobles, institutions and government departments. In order to value and manage their newly acquired assets, many 'Landlords' commissioned a written inventory – a practice that had been in operation since the Doomsday Book and which helped to clarify estate boundaries, valuations and manorial records.

By the late 16th century – once these skills of art, engineering and mathematics had merged with inventories – map-making in England made a great leap forward. It led to illustrated surveys, in the form of drawn maps. This was a new way of communicating complicated data. In fact, it was a mini revolution, not unlike the recent 'Sat Nav' one!

Influence of Manuscripts & Printing

An earlier revolution, in the previous century, was the introduction of the printing press. William Caxton, initially an English Merchant in Bruges, recognised the power of printing and learnt his trade in Cologne. Around 1476, he returned to England and set up a press in Westminster from where he translated and published books in the English language, sometimes illustrating them with woodcuts.

By the early 16th century, copper-plate etching and engraving was used as a way of printing images and maps. This enabled the work of continental artists and cartographers to be distributed more widely. In turn, the images provided new ideas and insights for artists in England. A special case in point is Breughel's drawings of peasant scenes.

Peter Eden, and subsequently Raymond Frostick, identified a man drinking from a vessel on a map of Aldeburgh (1594),[6] as being similar to that of a peasant drawn by Breughel. The Aldeburgh map is signed by Darby and the peasant is very similar to one shown on the 1846 map. As a result of this detective work, we had our first definite evidence that John Darby was the likely artist of the Blakeney Haven Map.

In the 1570s, Christopher Saxton was commissioned to produce an *Atlas of England & Wales*. Like many before him, he (or his assistants) made use of mythical sea monsters, fantastical fish and various ships to fill up spaces on the maps. Illustrated manuscripts such as the Book of Kells and Luttrell Psalter would have been a good resource for these imaginary animals as well as for decorative lettering. Although a Yorkshire-man, the first county map that Saxton made for the Atlas was of Norfolk, in 1574.

Fig. 3. Detail of fish from map in fig. 1

Influence of Suffolk 'mafia'

Darby lived in turbulent times – the Elizabethan era was dominated by a system of patronage, controlled by the Queen and her court. It created a network of courtiers, nobleman and gentry who needed to find favour with the court. Artists and musicians were often used to enhance the status of a patron.

John Darby enjoyed the patronage of Sir Philip

Parker (1549-1604) who lived in Erwarton, Suffolk. Thomas Seckford also lived in Suffolk, near Woodbridge. Parker and Seckford are both listed as JPs for the county in 1579. Seckford was a court official who travelled around the country with Queen Elizabeth I. He was also a colleague of the Lord Chancellor, Lord Burghley, who amassed a vast collection of books and maps, including Saxton's early proof copies.[7]

Parker's father died in 1552. His mother was Elizabeth Calthorpe (1521-1578), daughter and heir of Sir Philip Calthorpe, also of Erwarton. Elizabeth's second husband was Sir William Wodehouse of Waxham in Norfolk. From his first marriage, Wodehouse had a daughter, Ann, who became the wife of Sir William Heydon.[8] This meant that, for a short while, Parker's mother was the step-mother of Heydon's wife.

Both Parker and Darby owned land at Burnham Overy in Norfolk,[9] whilst Heydon owned the manor of Cley. The latter was facing a legal contest over a (potentially valuable) shipwreck on the Stewkey Sands which he claimed was part of his domain but this was contested. It is, therefore, possible to conjecture that Heydon asked Parker to invite Darby to produce a map of the Blakeney Haven (& Port of Cley) in order to underpin his case when it came to court.

Another Suffolk link was Ralph Agas who was born and died in Stoke-by-Nayland (early 1540s-1621). He was one of the earliest surveyors to draw estate maps to scale, his first one being of West Lexham in Norfolk in 1575.[10] He was ordained and became Rector of Gressenhall (1578-83) but, being of a cantankerous nature, had trouble with his bishop and then left the Church. He had commissions to survey land all over East Anglia and further afield. He was in correspondence with Lord Burghley and it is possible that Darby knew and worked with him.

Surveying Tools

Local knowledge and good weather were prerequisites for an effective land survey. In the late 16th century, a land surveyor would usually have a team of assistants to walk and take measurements. They would use a measuring pole made of wood, also known as a perch or pertica *(see the following article by Jonathan Hooton)*. The team would also have use of a plane table, a simple theodolite, chains (of 100 links) and (compass) dividers.[11]

The accuracy of tools might be questionable and the bias of the surveyor or his patron might also have an effect on the map that was produced. On the 1846 map, the village of 'Stewk(e)y' is shown as being a quarter the size of Cley. Is this arrangement because Heydon claimed ownership of the nearby sands and wanted to put the village 'in its place'? If so, has Darby downsized the scale to reflect his patron's intimidating tactics?

There were no formal conventions at this stage and most surveyors were employed on a part time basis. They probably did not have a (bearing) compass as these were used mainly for navigational purposes in the 16th century. Later, a magnetic compass would have been added to their toolbox. Likewise, it was another three decades before colour was standardised.

An extra Tool: Sense of Humour

Looking closely at some of the people that feature on the Blakeney Haven map, there is a lightness of touch as though Darby is sketching out cartoon characters. When it comes to portraying 'himself' as the surveyor, he is clasping a measuring pole and wearing dividers in his belt. He is also wearing a fearsome looking mask, thought to be that of a goat. In old English, 'goate' signified a stream or sluice. One senses that Darby was poking fun at Heydon's opponents because, on the map, the stream running alongside the contested sands is called 'Stewkey Goate'. The following article by Nichola Harrison will elaborate other aspects of his playful humour.

Fig. 4. Goat Mask from map in fig. 1

Conclusion

It is frustrating that we only have limited knowledge of Darby's life and achievements but, thanks to easier access to historic documents, we do know more today than, say, fifty years ago. Darby seems to have been a talented surveyor with a useful network of contacts spread across Norfolk and Suffolk. His skills in producing colourful maps have ensured a legacy that is now of national importance.

Notes

1 J. Hooton, '1586 Map of Blakeney Haven and Port of Cley: Part I'. *Glaven Historian 1*, 1998, p. 3. J. Wright, '1586 Map of Blakeney Haven and Port of Cley: Part II'. *Glaven Historian 2*, 1999, p. 3.

2 R. Frostick, 'A 16th century East Anglian Surveyor and Peter Breugel', *Journal of the International Map Collectors' Society* 101, 2005, p. 38.

3 R. Frostick, 'The Map of Blakeney Haven and Port of Cley – 1586', *Glaven Historian* 9, 2006, p. 29.

4 http://www.goughmap.org/settlements/8001/ (accessed July 2018); See also J. Wright, 'Blakeney's "Map of the World" in 1368', *Glaven Historian* 9, 2006, p. 49.

5 P. D. A. Harvey, *The History of Topographical Maps* (Thames & Hudson), 1980, p. 254.

6 Frostick, op. cit. n. 2, pp. 36-37.

7 http://special.lib.gla.ac.uk/exhibns/month/june2002.html (accessed July 2018).

8 D. Cooke, 'Sir William Heydon and his heraldic heiresses', *Glaven Historian* 15, 2007, p. 40.

9 Frostick, op. cit. n. 2, p. 33.

10 P. Barber, 'John Darby's Map of the Parish of Smallburgh in Norfolk, 1582, *Imago Mundi*, 57, 1, 2005, p. 55. (Holkham Archives M/92).

11 S. Bendall, 'Introduction, 1546-1602', *Dictionary of Surveyors and Local Map Makers of Great Britain and Ireland*, Vol. 1, (British Library 1997), pp. 17-26.

2 Scale: How accurate is the map of Blakeney Haven? (Jonathan Hooton)

Synopsis:
The question is often asked as to how accurate the 1586 might have been. This article explores the scale dimensions with reference to two 19th century copies – the Cooke copy made in 1846 and the Long one made during the 1840s.

'The earliest English maps based on measured survey and drawn to scale, date from about 1540' writes P. D. A. Harvey in his article on the spread of scale mapping in Elizabethan England.[1] John Darby was at the cutting edge of map making when producing his 1582 map of Smallburgh to a scale of 1:2376, about 26 inches to the mile.[2] When four years later he was commissioned to draw the *'platte'* to accompany the 1586 law suit, he also produced a scale map and this again seems to be fairly novel. Harvey states that 'of the maps in the Public Records that can be associated with particular lawsuits between 1550 and 1580 the only one drawn to scale is, significantly, of an exceptionally large area: Ashdown Forest' and later says that for the period 1550-80 only maps of fortifications and larger areas, such as whole counties, were drawn to scale.[3]

The scale bar is held by the character (wearing a goat's head mask) in the bottom right hand corner. It is 5 inches long and divided into units of 10 that run from 0 to 200. The writing is indistinct but appears to be *'Scala per...'* (Long copy), and *'Scalum Hettyorum'* (Cooke copy); this is likely to be a transcription error and the original may have read *'Scala Perticarn'* as appears on John Hunt's 1649 map of the Salthouse marshes.[4] This would mean perches, since the word derived from the Latin *pertica*, meaning a pole or staff. At this period the words pole/rod/perch were interchangeable and in 1607 the rod was standardised at 5 ½ yards.[5] This would mean that the 5 inch scale on the 1846 map would represent 200 perches (or 39,600 inches). The scale of the map was 39,600 ÷ 5, or 1:7920. Put more simply it was drawn at 8 inches to the mile.

Fig. 1. Close up of pole

In order to check the accuracy of the surveying, measurements between points that have not moved (i.e. the churches and Wiveton bridge) were compared with measurements on the nearest Ordnance Survey (O.S.) map scale (1:10,000). The O.S. measurements were then scaled up to that of Darby's map (1:7,920) and the percentage differences calculated. This involved some standardisation. Because Darby used pictograms, rather than symbols, they took up more space on the map; church measurements were taken from the bottom left hand corner of the tower and the bridge was measured from the central pier.

The percentage differences from the 'true' O.S. measurements varied from 0.89 per cent greater to 113 per cent greater on the Cooke copy and 3.14 per cent greater to 93 per cent greater on the Long copy. Both copies were significantly more inaccurate in the south east corner, with a very large error in exaggerating the distance from Wiveton church to the bridge. If only church to church measurements are considered then the accuracy greatly improves; 0.89 per cent to 11.4 per cent greater (Cooke) and 3.1 per cent to 8.2 per cent greater (Long). The larger differences i.e. Morston to Blakeney/Cley churches are more accurate.

It must also be remembered that we are comparing copies of the original to the O.S. map; errors must have occurred in copying which means the original might have been more accurate. It is also interesting to compare the two copies. They are surprisingly similar. One measurement (Morston church to Wiveton bridge) is exactly the same and, for all the measurements taken, the differences range from 0 to 17mm and all but two of them within 8mm of each other.

We can therefore conclude from the copies, that the original map was carefully surveyed and surprisingly accurate. It is also interesting to question how useful the map was in settling the dispute. Apart from allowing the judges to visualise the area, it seems to be of little use. It was more likely that a working sketch was made for the lawyers and that a decorated version was commissioned by Heydon to display as a status symbol. This might explain why the map stayed in Norfolk, rather than being deposited in the public records.

Notes

1 P. D. A. Harvey, 'Estate Surveyors spread of scale maps 1550-1580'. *Landscape History* 15, 1, 1993, p.38

2 P. Barber, *Magnificent Maps* (British Library 2010), p.138.

3 Harvey, op. cit. n. 1, p.40.

4 Norfolk Record Office MC2443/1. *The Description of Salthouse and Kelling Marshes in the County of Norff.*

5 Four poles = a chain (22 yards); 10 chains = a furlong; and 8 furlongs in a mile.

3 John Darby – Further Notes and Reflections (Nichola Harrison)

Synopsis:
This article reflects on why John Darby has attracted growing interest in recent years, and in so doing adds some further insights into his life and work.

Introduction

Diana Cooke has already set out much of what can be gleaned about John Darby from historical records. The pickings are frustratingly thin, although parish and civic records, wills, tax certificates and *post mortem* inquisitions sketch out a man typical of the Elizabethan age: inventive, upwardly mobile, family-minded – and dogged by bureaucracy. Since he left much of his work unsigned, it seems he was not looking for a place in the history book – and yet as it turns out, 400 years after his death, a cluster of enthusiasts is intent on wrenching him out of obscurity.

This article will reflect on why John Darby has such appeal for those who spend a little time with him. It will suggest three reasons: first, his technical skills were remarkable; second, his work charms us with its freshness, quirkiness and warmth; and third, he is mysterious.

Fig.1. Darby's Smallburgh map overlaid with the modern parish boundary shown in blue. *© British Library Board, Maps C.7.c.1, page 16.*

"Precocious sophistication"

You have to admire a man who could in 1582 map the boundaries and other features of an entire parish with an accuracy to rival modern satellite mapping. This was John Darby's achievement with his huge (6 feet wide) map of Smallburgh,[1] as fig. 1 shows. Except where parish boundaries in an area of water and marsh have evidently moved in later times, the match is remarkable - in some places near perfect.

This map turned up in a country house auction in 2004 and was snapped up for £15,000 by the British Library; in his article about it, the Library's Head of Maps, Peter Barber, points to Darby's "precocious sophistication".[2] He notes not only that the map is "one of the first English local maps to be drawn to a consistent scale", but also that it employed a systematic colour scheme to denote land use types including pasture, mashes and arable land – a system only formalised in cartography 30 years later.

Such innovation is impressive, not least in that this is Darby's earliest known work, made when he was probably in his late 20s. And it seems he was proud of his skills, because at the bottom of the map he offers what must surely be a self-portrait, in the form of the surveyor with his measuring rod and dividers (fig. 2). Perhaps the image was intended to remind his clients that these skills were special and worth paying for. Darby married into money, but he amassed further wealth during a career as a land surveyor known to span the years 1582 to 1606, so it may be assumed that he was well rewarded for his work. Indeed, he may have received a grant of land by one client, Sir Philip Parker, because his bequests included land at the Burnhams in North Norfolk where Parker was a substantial landowner.

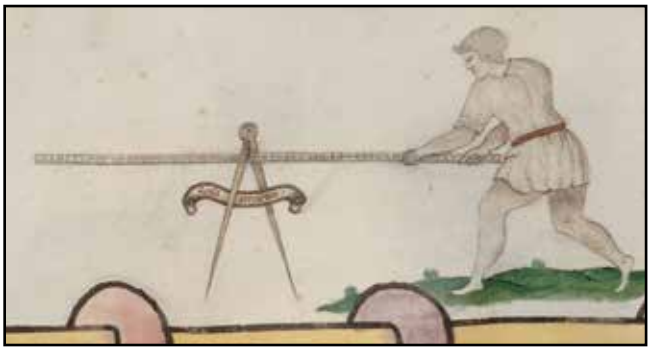


Fig. 2. Self-portrait, Smallburgh map

Fig. 3. Detail from the map of Southwold 1588

Smallburgh is arguably Darby's finest work, but as Jonathan Hooton has shown above, the 1586 Blakeney map was "carefully surveyed and surprisingly accurate". Initial examination suggests that the same may be true for his later maps - of Southwold (1588), Mousehold (c.1589),[3] Kirton (1591)[4] and Aldeburgh (1594).[5]

The Southwold map[6] (fig. 3) is a recent discovery. Measuring in at just nine inches high, it lies in the National Archives at Kew, unsigned and unattributed, but very obviously in Darby's style. It is hoped that the National Archives will in due course agree to attribute the work to Darby in its catalogue.

If this map is by Darby, it shows he was trusted not only to map out country estates, but to contribute to England's war effort. On the reverse the map is dated 1588 – Armada year – and it is found in the State Papers associated with William Cecil, Lord Burghley, map lover and chief minister of Queen Elizabeth. It appears Cecil may have studied the map, because adjacent to the word *Soulde* (Darby's indication for the town of Southwold), the words *Als* [Alias] *Southold* have been added in handwriting that compares well to known examples of Cecil's hand.

It is not clear whether the 'star fort' shown on this map was ever built, though Google Earth indicates an angled earthwork in the right location. Certainly the small figure of the surveyor, plodding back from the fort to the town with his measuring rod, seems to be telling us that a hard day's work was complete and the wine bottle beckoned.

"Vale in vinis"

The wine bottle featured large in Darby family life. In his will, John Darby ordered gold rings to be made for his "verie benine and dearelie beloved mother" and four siblings, each to be engraved with the words "vale in vinis", or "take health from wine". Perhaps he intended a similar message by imitating on three of his maps the drinking figure from Bruegel's painting *Summer* – in two cases modified to represent the surveyor with his equipment.

Not the bottle, but the whole barrel makes an appearance in one of Darby's medieval-style illuminated manorial surveys (fig. 4).[7] Now empty of its contents, the barrel is being used as a beehive and the beekeeper's bare bottom is one of Darby's more surprising images. It is a revealing one too, because the bottom is his own: the beekeeper is holding a surveyor's measuring tool. It is an image typical of the leg-pulling and private jokes that permeate his work.

This playfulness is undoubtedly part of Darby's appeal to the modern eye, but his work displays another mood too: an affection for the countryside he worked in and the people and animals inhabiting it; a deep connection to place that we have perhaps lost and may yearn for.

We sense this mood in the small map of Kirton in Suffolk, where the fields and hedges invite us to stroll in the vivid green of a spring day. In several works, charmingly drawn farm animals – sheep, cows, pigs, donkeys and horses – graze peacefully in fields carefully labelled with the old names, like Greenecombe, Ponde Pightell and Braky Closse. On the Smallburgh

Fig. 4. Detail from the manorial survey of Cleves in Burgh, Suffolk, 1589. *With kind permission of the Suffolk Record Office, HB 9: 51/1/12*

map, country people go about their daily lives, shooting and fishing (fig. 5). On the coastal maps of Blakeney, Southwold and Aldeburgh (his last work, made in 1594), small fishing boats and great warships share the waters with outlandish sea monsters.

In the Blakeney map Darby's enjoyment of people is at its most joyous – the leaping swordsmen fighting at Freshes creek, the group vigorously ransacking the wrecked ship, the men and women quietly harvesting cockles on the sands, the couples dancing to the bagpipes in their Tudor garb. These last may portray Darby's client Sir William Heydon and his family and the whole assemblage appears to be a celebration.

The warmth and *joie de vivre* of Darby's style is exceptional amongst the local maps of this period. Many others are beautifully drawn and decorated, but almost none have the highly personalised quality of Darby's work. Whether that quality was encouraged by his clients is unknown, but we are the beneficiaries: history often feels remote and impersonal at 400 years distance, but John Darby connects us with those far-off times.

A treasure hunt is on

Darby was at the cutting edge of his profession, that much is clear, but as yet no facts have emerged about how he learned his skills or whether he collaborated with other surveyors in some kind of professional network. Answering these questions about Darby, and by extension about his contemporaries, would cast light on the development of English cartography at an important moment of change, so the hunt is on.

And it is a frustrating exercise. Many mapmakers in England and elsewhere were using features also employed by Darby, such as the depiction of buildings with red pitched roofs and the inclusion of scale bars or compasses, cardinal points, decorative cartouches and borders, sea monsters and beautiful sailing ships; but

Fig. 5. Detail from the Smallburgh map

it is difficult to find similarities of style clear enough to demonstrate a master-apprentice relationship or close collaboration. We can only look for unusual clues, and Darby's self-portraits provide two that are tantalising.

In varying forms, the motif of the surveyor with his instruments is found on every one of Darby's six maps as well as in one of the three written surveys,[8] and it is surely reasonable to regard these as self-portraits. Such images are virtually unknown on other maps of the period, at least in Darby's very personalised style, so it is of great interest to find a clear example on a map made by Ralph Agas, Darby's Suffolk compatriot and contemporary, to whom Diana Cooke refers in her article above.

The map is of Oxford[9] and dated 1578 – three years

Fig. 6. The figure of Hermes with surveying equipment. Detail from the Agas map of Oxford, 1578

after Agas's pioneering scale map of West Lexham and four years before Darby drew the Smallburgh map. It contains a classically-inspired image of the surveyor (fig. 6) with his measuring rod and dividers and wearing the winged cap and sandals of Hermes – "the god of boundaries and the transgression of boundaries".[10] Cooke has suggested that Darby and Agas may have been connected through their Suffolk roots; perhaps that proposition is strengthened by their apparently shared notion of the surveyor as an icon worthy of depiction. If so, Agas is likely to have been the master and Darby the assistant because Agas was already working as a surveyor in the 1560s when Darby was still a child. In this scenario, it is possible that Darby benefited from, and even contributed to, the new thinking that produced Agas's pioneering scale map of West Lexham,

Fig. 7. Dog snarling at the surveyor in Darby's Map of Mousehold Heath, east of Norwich. *With kind permission of the Norfolk Record Office MC3085/1*

Fig. 8. Dog snarling at a goat-like figure in Christopher Saxton's map of Suffolk 1575. *© British Library Board Royal MS.18.D.III f.38*

before breaking away to use the same techniques on his own map of Smallburgh.

The second clue about Darby's connections, also associated with the self-portraits, is no more conclusive than the first, but it warrants an airing. It is the mystery of Darby's ferocious dogs. Three of his maps - Blakeney, Mousehold and Aldeburgh – contain images of dogs barking fiercely at the surveyor (fig. 7) and, in addition, it seems not unlikely that the bare bottom of the Cleves beekeeper was the result of an attack by an unseen hound below. At one level, this looks a tame sort of mystery: a surveyor must intrude on land occupied by possibly reluctant tenants and Darby may routinely have had the dogs turned on him as he went about his business. However, as with the self-portraits, the aggressive dog motif gets more interesting because it is rare and yet makes an appearance on a map with which Darby could have been connected.

This is Christopher Saxton's 1575 map of Suffolk,[11] part of his ground-breaking series of county maps. Here, atop the title cartouche, two dogs snarl at two fauns (the latter reminiscent of the goat-masked figure seen in Darby's Blakeney map) (fig. 8). Little is known about how Saxton achieved the monumental task of surveying the counties of England and Wales over just a few years. He must have needed local manpower and the young Darby was amongst those who could provide it in East Anglia. If not through Agas, the opportunity may have arisen through other contacts: Darby's future client, Sir Philip Parker, was at the time an Ipswich JP alongside Saxton's own patron, Sir Thomas Seckford.

It would be too much to expect a few self-portraits and a small pack of dogs to provide conclusive evidence about who knew whom in the world of late 16th century English mapmaking; perhaps stronger evidence will one day emerge. Nevertheless, it is tempting to believe that John Darby may be linked – through two of his most endearing trademarks – with not one, but two of England's pioneer cartographers of the period.

Conclusion

The past has bequeathed us something special in the small collection of important and beautiful works by John Darby and it is to be hoped that more will be found, tucked away in archives or under the stairs in East Anglian country houses. There is certainly more to find out about the man and his place in cartographical history and, above all, there is great enjoyment to be had from appreciating his technical skill, his artistry and the warmth of his personality.

Notes

1 Estate map of Smallburgh, Norfolk. British Library Shelfmark: Maps Dep. 1741; Item number: f. 1

2 P. Barber, 'John Darby's Map of the Parish of Smallburgh in Norfolk, 1582'. *Imago Mundi*, 57, 1, 2005, p. 55

3 Map of Mousehold Heath by John Darby. Norfolk Record Office Ref. MC 3085/2

4 Map of Smart's Charity estate in Kirton and Falkenham. Suffolk Record Office (Ipswich) Ref. C/3/10/8/1/2

5 Map of Aldeburgh ("Alberough") by John Darby. Suffolk Record Office (Ipswich) Ref. EE1/8861

6 'The plotte of Southold [Southwold] in the Coun ty of Suffolk' 1588: The National Archives Ref. MPF 1/138

7 Manor of Cleves, survey (extent & rental) 1589. Suffolk Record Office (Ipswich) Ref. HB9: 51/2/35

8 The other surveys in the series, of Grundisburgh and Burgh, also contain prominent images of a man, but without instruments. Suffolk Record Office (Ipswich) HB9: 51/2/12 and HB9: 51/2/12

9 Ralph Agas, 'Map of Oxford 1578', Bodleian Li brary Gough Maps Oxfordshire 2

10 wikipedia.org/wiki/Hermes.

11 Christopher Saxton, 'Suffolciae Comitatus': British Library Royal MS. 18. D.III f.38

Seventeenth-Century Tokens at Cley

Adrian Marsden

Synopsis:
This paper examines three tokens issued in Cley in the 1650s and 1660s: halfpennies of Richard Shawe, a chandler, farthings of John Wilch, of The George (which still exists in Cley) and a Corporation token farthing of Cley in Hoult Hundred. The author looks at what is known about the issuers and examines how widely their tokens circulated, with an appendix listing all known finds.

Nearly twenty years ago the late Peter Carnell published an article in this journal on *Trade Tokens Recovered in Wiveton.*[1] It provided an early survey of the token coinage found by the metal detectorists of Discovery Tours, an annual metal detecting tour arranged by David and Trish Barwell, which has operated in the fields around the boundary between the parishes of Wiveton and Blakeney for many years. Among other things it looked at the two issuers of tokens who were based at Cley, Richard Shawe and John Wilch, and the origin of the twenty-four seventeenth-century tokens then recorded from the detector survey.

The Norfolk Token Project (henceforth NTP), a collaborative venture set up by the author of this article in 2014, is dedicated to carrying out further research on the many aspects of this token coinage in the county. Since Carnell's article was published, many more tokens – well over a hundred in total – have been found in the Cley area and the much larger number now recorded can provide a fuller picture of token use in the immediate environs of Cley. The lists of tokens in the Appendix have been drawn from the Historic Environment Record's (henceforth HER) paper files, spreadsheets used to record Discovery Tours coin, jetton and token finds, and from the Portable Antiquities Scheme (henceforth PAS) database. The large number of tokens recorded from Norfolk – over 2,000 – also enables us to look at finds of Cley issues from outside the Cley area. Additional research has also uncovered further details on the issuers from Cley which it is pertinent to mention here. This article is dedicated to the memory of Peter Carnell and his pioneering work on the tokens issued in Cley and found in the area.

Introduction

The seventeenth-century token series was produced in the years between the execution of Charles I in 1649 and the issue of Charles II's Regal copper coinage in 1672. Its function was simple, to provide small change during a period of chronic currency shortage. In the sixteenth and early seventeenth century, counters known as jettons were imported in vast quantities from Nuremberg to serve as a low-value token coinage. In 1613 James I began to sell patents allowing individuals to issue token farthings in his name. Despite the unpopularity of this coinage – it had a negligible intrinsic value – the issue of these farthings continued until the English Civil War when the patents were revoked by Parliament in 1644. The ongoing shortage of small change and the death of Charles I encouraged individuals and civic bodies across the country to issue their own token currency.

The new tokens issued by private individuals usually carried the name of their issuer and a relevant symbol, perhaps the arms of a guild company or an inn sign, on the obverse and details of their location, their initials and that of their wife (if they had one) on the reverse. In some cases they were dated. In Norfolk most are farthings of around 16mm diameter but a few larger halfpennies also exist. They provide a wonderful window on the society of their time, naming as they do individuals who can usually be traced in the historical records.

The corporation tokens issued by towns and cities are simpler in design, naming the settlement and the date and usually displaying the arms of the issuing authority. They are larger than the private farthings, generally being around 19-21mm in diameter. In the case of Norfolk, where corporation issues were produced at Norwich, Great Yarmouth, King's Lynn and Diss in the late 1660s, we are fortunate in having much of the documentation concerning them survive for study.[2] In these major settlements private issues were evidently banned with the introduction of the corporation tokens.

The mechanics of token production need not detain us for long but some comments are necessary. It used to be believed that many tokens were produced at the place of issue, the dies being produced by itinerant artisans and then mounted in presses by the issuers themselves. However, the machinery needed to produce tokens was both expensive and specialized, and in the seventeenth century would have been unlikely to have existed outside of the Tower mint in London. All of the evidence available points to the vast majority of tokens – both private and corporation issues – having been produced in London and then sent out from there to those who had ordered them.[3]

The dies used in the token presses where these tokens were manufactured were produced by hand. Many small puncheons were applied to the striking surface of the die, building up a design little by little. When the design was completed the striking surfaces were hardened and the two dies, obverse and reverse, were set into a coin press to begin their working lives. The dies had a square cross section and, because of this, could be set into the press in four different positions. Depending upon the positions in which the dies were placed in the press the alignment of the obverse and reverse of the token relative to one another will differ. This is known as the die axis; when the two sides are aligned exactly the die axis is referred to as 12 o'clock, when the two sides are upside down relative to one another then the die axis is 6 o'clock. After a coining run

Fig. 1. Halfpenny token of Richard Shawe: obverse left and reverse on the right (19mm, Norwich Castle Museum)

had finished, obverse dies might sometimes be stored for several years before being re-used, often in combination with a newly-dated reverse die.

Since each die was produced by hand, the slight differences between each can be identified. Thus, some issuers can be found to have had more than one pair of dies produced. Since a die's working life was limited, the existence of more than one pair of dies would, all things being equal, suggest a greater number of tokens issued. Usually this holds true, those issuers represented by multiple dies also being represented by a greater surviving number of tokens.

This leads us to the question of the volume of any one token issuer's output. The surviving records relating to the corporation farthings demonstrates that these were issued in enormous numbers. In Norwich, at least several hundred thousand seem to have been issued. The output of private issuers cannot have approached anything like that amount but, nonetheless, the numbers issued by some traders may have been relatively large.

Gary Oddie has recently carried out some interesting research on this subject.[4] He suggests a business model whereby a minimum order of two pounds would produce 2,000 farthing tokens. The dies would have cost a pound to produce, the metal ten shillings and the remaining ten shillings being the profit for the producer. Clearly, much of the initial cost was invested in the production of the dies, the only profit on a two pound order being twenty pence.

But there was no need to limit oneself to an initial issue of two pound's worth of tokens. Every additional pound spent would buy 2,000 tokens, a profit of over one hundred percent. Only when one of the dies needed replacing would further outlay in this area be necessary. A die could reasonably be expected to produce at least several thousand tokens before it was no longer usable although no doubt some dies had faults which caused them to break down early.

The evidence of multiple dies being used for some issuers coupled with evidence on the tokens themselves of excessive die wear – symptomatic of heavy use – suggests that some traders must have ordered many thousands of tokens. Since no records survive of how many tokens were made for private issuers, there is no hard evidence for exactly how many were supplied. Nonetheless, for example, the large number of dies (totalling four obverse and five reverse) used for Cleare Shewell, based at the small town of Harleston in South Norfolk, implies that some private traders could have been very prolific issuers indeed.[5]

There is not time here to describe the full story of the demise of the farthing tokens discussed here. To summarize, they were outlawed by Charles II in 1670 when orders were issued by the king in Council making it clear that coining was the prerogative of the Crown and the Crown alone. Although it is clear that those tokens circulating in the larger towns and cities of Norfolk were recalled by the corporations that had issued them within a couple of years of the ban, some surely continued to circulate in the countryside. Wodderspoon, writing nearly two hundred years later in the year 1859, states that the specimens of the Norwich corporation farthings 'may at this day be found in remote places doing duty for the coin of the realm'. [6] They might have been officially banned but it seems that, outside of large towns and cities, the corporation farthings were not necessarily discarded but could continue to be used as currency, sometimes for many generations.

As might be expected, most private issues in Norfolk were produced for traders in the three large centres of Norwich (91 issuers), Yarmouth (41 issuers) and Lynn (34 issuers). The tokens circulated by traders in these three settlements account for well over half of the total of token issues from Norfolk. As mentioned above, private issues in these centres were banned with the introduction of the corporation tokens in 1667 and 1668. Tokens were also circulated by traders in smaller towns although none of these approached the number of issuers located in Norwich, Yarmouth or Lynn. Dereham, for example, had eight issuers whilst Aylsham, North Walsham, Swaffham, Thetford and Upwell each had five. The remainder of issues belong to smaller settlements, most of these places having only one or two traders who circulated tokens.

Fig.2. Farthing token issued by Francis Shawe of Holt, dated 1658 (16mm diameter)

Cley is typical of these smaller settlements, producing two private issues, together with a strange farthing token of large size which might best be described as a pseudo-corporation issue. It is worth considering these local tokens and their issuers in some detail before moving on to discuss how far they circulated – and the origins of the other tokens found in the Cley area.

Richard Shawe

Richard Shawe issued halfpenny tokens dated 1667 (fig. 1).[7] Halfpennies are a rare denomination in Norfolk and occur almost exclusively in the north-west of the county where they seem to mirror a much larger issuing of halfpennies in nearby counties such as Lincolnshire.[8] Since halfpennies also came late in the period of token issue, belonging in the main to the late 1660s, the banning of private token issues in 1667 at Norwich and Great Yarmouth seems to have prevented their appearance there.[9] In the following year they were banned at King's Lynn. There, two halfpennies had already made an appearance, one of Jeremiah Hovell in 1666[10] and another of William Sharpe in 1668.[11] More would no doubt have been produced at the three principal settlements in Norfolk were it not for these ordinances preventing their issue.

No such rules were enforced at Cley and so Shawe had no corporation to prevent him issuing tokens in 1667. His halfpennies were produced from one pair of dies and depict, on the obverse, a chandler (candle-maker) at work encircled by the legend RICHARD SHAWE OF and, on the reverse, the legend CLAY IN NORFOLKE I667 surrounding the initials S/ R M in the centre. The denomination of a halfpenny is made clear by the ½ placed between the R and M in the centre of the reverse. All examples studied appear to be made of copper and have a three o'clock (90 degree) die axis.

The only Richard Shawe who can be traced in the baptism records, son of Robert, was baptised at King's Lynn on 26th May 1633. It seems very likely that this was the token issuer. Despite extensive searches of marriage records nothing has so far been found relating to Richard Shawe. Nonetheless, given the letter 'M' placed on the token in the position where a wife's initial would be located, and the records of the baptisms of children born to Richard and Martha Shawe, we can be sure that Richard married Martha, most probably at some stage between about 1654 and 1658.

Martha Shawe gave birth to a son, Robert, baptised at Cley on 30th October 1659. A daughter, Margaret, was baptised on 24th June 1662 and a stillborn son Bernard two years afterwards, born and buried on 12th April. A second daughter, Frances, was baptised at Blakeney on 19th September 1665 and a third, Priscilla, at Cley on 26th July 1667. Although most of these mentions of Richard Shawe occur in the Cley parish registers and the token refers to his being located there in 1667, he is placed at Blakeney in the Hearth Tax assessments for 1664 and 1666, assessed for tax on two hearths on each occasion.[12] The two places are only about a mile apart – perhaps the family lived at Blakeney but their business premises and the church they attended were at Cley.[13]

As we have just seen, Richard Shawe was assessed in the Blakeney hearth tax for 1664 and also for that of 1666. Carnell made the interesting observation that Francis Shawe of Holt also issued tokens, in this case farthings dated 1658 (fig. 2).[14] These also depict a chandler at work and Carnell suggested that candle making was a family business. Indeed, recent research has discovered that Francis Shawe was Richard Shawe's older brother, born in 1630. He married Priscilla Hannon at South Lynn on 30th December 1652 and her initial appears on his tokens issued a few years later.

A Richard Shawe was also assessed for two hearths at Barningham Town – which is about ten miles from Cley – in both 1664 and 1666.[15] Was this a second business outlet of Richard Shawe of Cley or does it instead refer to another relative?

There seems to be nothing else relating to Richard Shawe's career in the records held in the Norfolk Record Office. The lack of a will is particularly unfortunate and, in the absence of further records, we cannot provide a fuller biography.

Fig. 3. John Wilch's first token issue, c.1658 (16mm diameter, found Blakeney), obverse on the left and reverse on the right

John Wilch

John Wilch, an issuer of farthing tokens in the 1650s, operated from the George Inn at Cley and died in 1660.[16] He is described as a mariner in the various records although it seems likely that at least a part of his time was taken up with running the George. Certainly, the fact that it passed to his son James on John's death demonstrates that John Wilch was the owner of the George and not merely living there. Furthermore, the description of him in his will (see below) as an innkeeper is telling evidence that he had more than a passing interest in the place. The George is still in business today although, given the 1897 rebuilding, we can be sure that John Wilch would not have recognised the hotel that now bears the name of the inn he once owned.

Wilch's tokens (figs. 3-4) were struck from two obverse dies in conjunction with a common reverse die.[17] Both have the same legends and general appearance, an obverse inscription of IOHN WILCH AT THE surrounding a figure of St. George and the dragon, coupled with a reverse legend of GEORGE IN CLAY encircling the letters I W. The first obverse die has the legend starting at about two o'clock and a die axis of five o'clock; the example in Norweb collection is described as being of brass. Significantly, the dies from which these tokens have been struck were manufactured using the same puncheon for the letter 'N' on both obverse and reverse dies. Thus, each die was produced at the same time.

The Norweb example struck using the second obverse die, with a legend starting at twelve o'clock and a six o'clock die axis, is described as being of mixed metal. On this obverse die the puncheon used to form the letter 'N' is obviously a different one; the letter is wider and the uprights thicker. Thus, this die is later than the first obverse die and was clearly prepared to make a second run of tokens. On some examples of this combination the reverse die shows signs of wear, most notably a die flaw developing between the letter 'O' in GEORGE and the inner circle.

Although the metal from which other examples have been produced cannot always be ascertained due to the effects of patination, every example of each die combination studied shares the same die axis as the Norweb specimens and appears to be produced from the same metal.

The approximate date at which Wilch's tokens were produced initially appears impossible to closely determine since the same puncheon of St. George slaying the dragon used to prepare the dies was evidently employed for a number of years. A study of the eight catalogues of the Norweb collection, illustrating many thousands of tokens, found it had been used on the issues of at least seven other traders. Its first dated occurrence is on a token of John Smith of Northampton of 1650[18] and its last on one of Edward Hayman of Kingsbridge in Devon of 1659.[19] However, study of the 'N' puncheons by Michael Dickinson enables a dating of 1658 to be applied to the first token issues and one of 1659-60 to the second.[20]

Investigation of the Cley parish records and others by online searches reveals some background to John Wilch's life. There are three possible baptisms that initially appear promising, a John Welche baptised at Great Yarmouth on 9th August 1590, a John Welch baptised at Norwich on 27th February 1596/7, and a Johannes Welch baptised at Houghton in the Hole near Fakenham in 1592. However, as is made clear by one of the documents relating to the George mentioned below, we can be sure that John's father was named William and this tallies with none of the three baptisms just noted. Searches reveal that William Wilch of Blakeney had several children baptised there from the late 1580s to the very early 1600s; although John must surely be one of his sons, his baptism record cannot thus far be found.

Nor can any marriage record can be traced for John Wilch. However, he was plainly married to Mary by 1626 since the first of their children was born late in that year. On some of these records their residence is described as Bodney; this must have been a small and now vanished hamlet near Cley. It can hardly refer to the parish lying between Mundford and Swaffham, far to the South.

The baptisms of a number of John and Mary's children are recorded, that of Martha (30th May 1636),

Fig. 4. John Wilch's second token issue, c.1659-60 (16mm, found at Sheringham). Again, obverse on the left and reverse on the right

Christopher (17th July 1637), Sara (31st October 1639), and Cecylye (11th April 1642). Two boys called John were described as the sons of John Wilch. One was baptised on 20th November 1626 and was buried less than a month later on 10th December of the same year. Another John, son of John, was baptised on 2nd March 1629/30. This giving of the name of a dead elder sibling to a younger sibling was common practice in this period. Two girls called Mary, both described as the daughter of John, were baptised, one on 7th May 1628, and the other on 10th April 1632. Both were surely the children of John and Mary, the elder daughter having been buried on 6th June 1630. Another daughter, Alice, daughter of John, was baptised on 17th July 1634.

John Wilch was buried at North Barningham, about ten miles from Cley, on 12th October 1660. Many of the family were buried at Barningham rather than Cley; presumably the family came from there. His will was a nuncupative one, given by word of mouth in front of two witnesses as he lay on his deathbed in October 1660 (fig. 5 on p.16).[21] It is stored at Norfolk Record Office and a transcription has been taken. This reads (with added punctuation):

Be it remembered that upon or about the 13th day of October in the year of our Lord one thousand six hundred and sixty, John Wilch of Clay next the Sea in the county of Norfolk, innkeeper, being sick of the sickness whereof he died but in perfect mind and sound memory did seriously declare his last will by word of mouth as followeth. It is to say I make my son James Wilch my executor and I will it he should take all and pay all and if there should be any overplus I will it to Philip my grandchild, son to my daughter Mary, [who] may have five pounds. Then, what shall remain, I will it, it shall be equally divided betwixt my two daughters, to say Mary Wilch and Cicely Wilch. Which, his will, in these or words tending to the same purpose, sense and effect, he uttered and delivered in the presence and hearing of Robert Burton, gentleman, and Chrestian Newbegin.

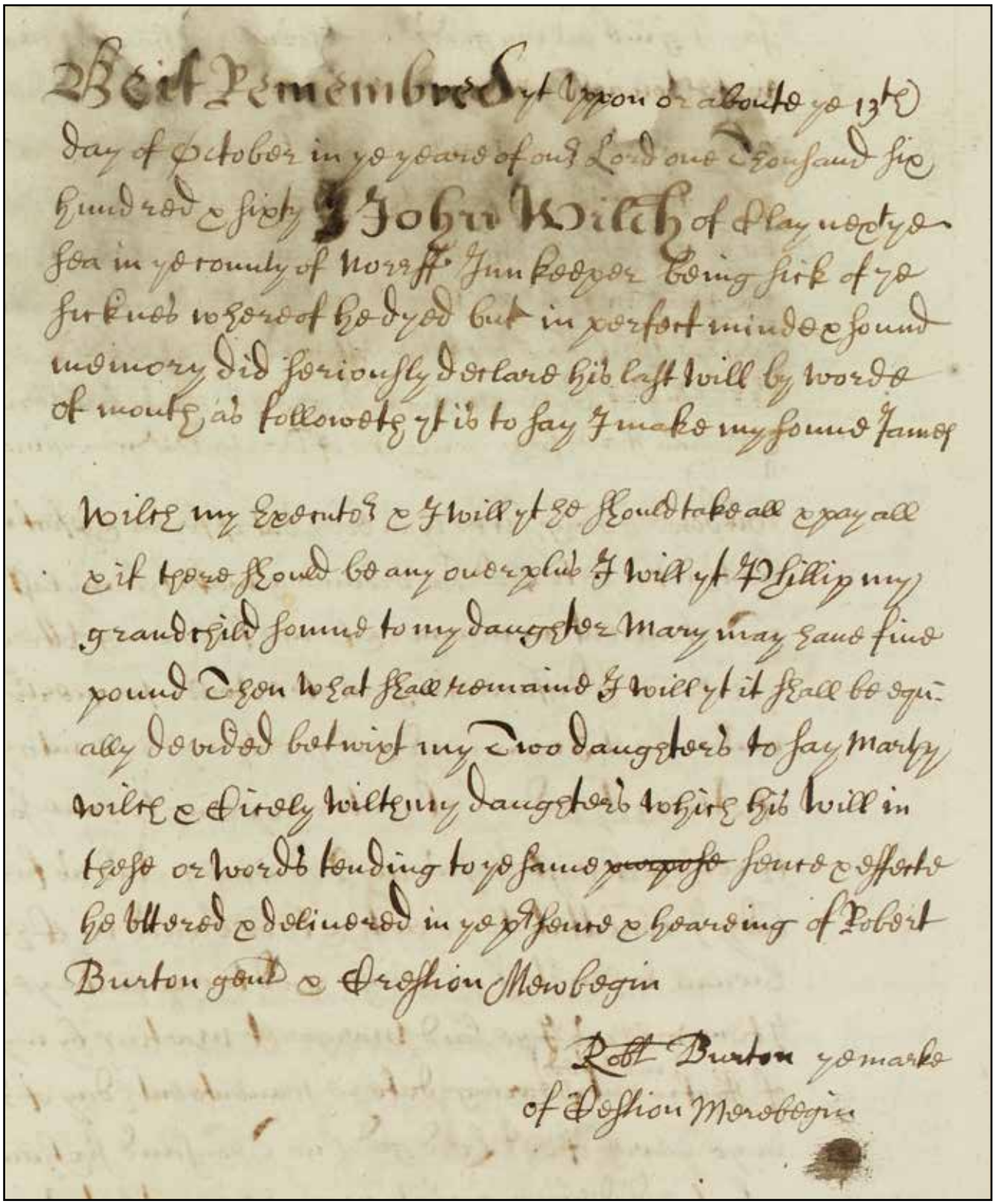
Robert Burton [signature], the mark of Chrestian Newbegin.

Robert Burton, gentleman, was assessed for eight hearths at Cley in 1666.[22] A Christian Newbegin, daughter of Peter and Mary, was baptised at Cley on 24th September 1637. The discrepancy in the record of Wilch's burial in the parish register (12th October) and the making of his will (13th October) can only be explained by one or other of the documents being inaccurate.

The lack of any mention of a wife in the will is good evidence that John Wilch's wife, Mary, presumably the mother of James Wilch, was dead by 1660. The fact that no wife's initial appears on the tokens also implies that she was dead when they were produced although a wife did not always receive recognition on her husband's tokens. In fact, the burial of Mary Wilch, wife of John, is recorded as having taken place at North Barningham on 6th May 1652.

There is no record of James Wilch's baptism although he was clearly the James Wilch of Great Yarmouth who had several children there by his wife Ann in the 1650s. Most probably he had been sent to Yarmouth as a youth in order to take up a position, perhaps as an apprentice. Unfortunately, no record of any apprenticeship of a James Wilch at Yarmouth can be found in the records. Nonetheless, his son John was baptised there on 17th August 1653, and several daughters, Ann on 20th May 1655, Elizabeth on 28th July 1656 and Hanna on 9th August 1658. After his father's death James clearly moved to Cley to take over the George; further baptisms of his children are recorded there, Nathaniel on 15th June 1663, Thomas on 2nd January 1664, and Joseph on 3rd September 1666.

James Wilch was assessed for seven hearths at Cley in 1664[23] and for six in 1666.[24] Carnell makes the interesting suggestion that the reduction may have been the result of successfully having a hearth used in trade exempted from the tax. He goes on to cite a number of documents relating to the George held in the Norfolk Record Office; these record the passing of the inn from William Wilch to his son John by 1650, from John to James, and then, upon his death, from James to his



Be it remembred yt vpon or about ye 13th
day of October in ye yeare of our Lord one thousand six
hundred & sixty I John Wilch of Blaynoe tyd-
fea in ye county of Norff. Junkeeper being sick of ye
sickness wherof he dyed but in perfect mind & sound
memory did seriously declare his last will by words
of mouth as followeth yt is to say I make my sound & lawf

Wille my Executor & I will yt he should take all & pay all
& if there should be any overplus I will yt Philip my
grandchild found to my daughter Mary may have & find
found & keep what shall remaine I will yt it shall be equi-
ally devided betwixt my two daughters to say Mary
wife & Cicely wife to my daughters to this his will in
these or words tending to ye same purpose sworn & affirm
he uttered & delivered in ye p[re]sence & hearing of Robert
Burton gent & Chrestian Newbegin

Robt Burton ye marke
of Chrestian Newbegin

Fig.5. The noncupative will of John Wilch as recorded by Robert Burton and Chrestian Newbegin while he was on his deathbed, October 1660. Norfolk Record Office

son, John. John sold the George in 1682.[25] Thus, although no burial record or will can be found for James Wilch, he was clearly dead by 1682.

Clearly, by the time he made his will, only two of John Wilch's daughters had survived, the second Mary and Cicely. Late in 1660, Mary, the elder one and mother of Philip, would have been 28 and Cicely just 18. It is unusual that Mary was still using her maiden name despite being a mother; had she reverted to her maiden name upon the death of a husband or was young Philip born out of wedlock? Strangely, a Cley baptismal record dated 28th November 1654 for a [Johifry] Wilch, perhaps a garbled transcription of Philip, does not give a father's name, only that of the mother, Mary Wilch. It is difficult to come to any other conclusion than that Mary had a child without having been married, an unusual situation at the time.

Fig. 6. 'Claye In Farthing' (21mm diameter, Norwich Castle Museum)

'Claye In Farthing/Hoult Hondred' issues

The rather enigmatic tokens with the obverse inscription of CLAYE IN FARTHING surrounding an anchor and the reverse legend of HOVLT HONDRED around a horseshoe are worth some investigation (fig. 6).[26] They are large farthings of approximately 21mm diameter. As the inscription makes clear they were produced under the auspices of Cley and the Holt Hundred. They look, to all intents and purposes, to be a corporation issue but, since neither Holt nor Cley had anything approaching what might be called a corporation, they cannot be considered as such in the usual sense of the term.

The pierced sexfoil initial mark at least enables a reasonably close dating. This is from the same puncheon used on the Richard Shawe 1667 halfpennies and on a number of other tokens, most significantly on the Great Yarmouth corporation farthings of 1667 and 1669 and on those of King's Lynn corporation dated 1669. All of Norfolk's corporation farthings are late in date – 1667 or later – and so is the use of this puncheon. A late date also fits the large size of the Cley Holt Hundred type and its appearance, so like that of a corporation issue. These tokens must date to around 1667-70. All examples so far noted have a nine o'clock (270 degree) die axis and seem to be made of brass.

They are not particularly rare in terms of representation in public collections or in terms of how often examples turn up on the market. Norwich Castle Museum, for example, has seven specimens.[27] They are, however, rare as finds, only five having been recorded from Norfolk as a whole. To give this figure some perspective we should consider the number of finds of Norwich corporation farthings so far recorded on the NTP list – 332 examples – those of King's Lynn – 163 examples – and of Great Yarmouth – 276 examples.

Plainly the Cley Holt Hundred farthings were not issued in very large numbers to begin with. Only one pair of dies was used in their production. They remain an enigmatic issue. Perhaps they were produced at a very late date, around 1670, when the use of farthing tokens was in the process of being made illegal. This might account for the fact that few were lost and a large number remained above ground. If, furthermore, no arrangements were forthcoming for their redemption then it is easy to see how a comparatively large number subsequently found their way into collectors' cabinets.

James Wilson of 'Blaky'

Carnell also mentions James Wilson who issued a token from 'Blaky' in 1668.[28] This is cited by Dickinson who suggests Blakeney as an origin and is also mentioned in the Norweb volume dealing with Norfolk.[29] The correct identification was arrived at by Thompson in 2009[30] and this was incorporated in the addenda of the last Norweb volume.[31] The token issuer James Wilson was not based at Blakeney but at Blakey in the county of Lancashire, the name of a now-lost settlement in the parish of Whalley. Thompson provides an abstract of his will, proved in 1675.

Tokens found in the Cley area

It is best to consider first the lists of tokens found in the Cley area as a whole. For the purposes of this study, tokens found in the parish of Cley and the adjoining parishes of Wiveton, Blakeney, Glandford with Letheringsett and Salthouse will form the corpus compiled for discussion (Appendix I). In future it will no doubt be instructive to extend these parameters but, for the time being, this group of five parishes forms a suitable area to commence investigation of token circulation in Cley and its hinterland. The large numbers of tokens found by the detectorists of Discovery Tours are supplemented by those found by other detectorists in the locality. All have been recorded, some in the HER's paper files, others on spreadsheets which have been added electronically to the HER, and others on the PAS database. The Corpus, currently standing at 129 identified seventeenth-century tokens, is listed as an Appendix, finds being grouped by issuer's parish, issuer's name, parish where found, and HER number.

It is not surprising that 41 of the total are farthings of John Wilch. The proportion as a percentage of the whole is almost identical to that of Carnell's much smaller sample. These account for about one third of the total number of farthings found in the Cley area. Plainly, in the environs of Cley, Wilch's tokens must have been a very common sight in their day. His death in 1660 may have meant that his tokens ceased to be accepted but it

is more probable that his son James – whose initials of I W would have been the same as those of his father – would have continued to honour them. It would have been unlikely, given the depiction of the George and Dragon on the obverse of the tokens that a new incumbent of the George would have refused to accept these tokens.

The small number of Richard Shawe halfpenny tokens recovered is striking. Only four have so far been found in the Cley area, a number which stands in stark contrast to the quantity of Wilch farthings recorded.

Only one of the rather odd Holt Hundred farthings has been recovered from the Cley area. More – although not very many more – have been discovered further afield. These tokens clearly moved beyond Cley and are discussed below in the section relating to the circulation of Cley tokens beyond the Cley area.

Recent research has shown that the corporation farthings of Norwich, King's Lynn and Great Yarmouth achieved – relatively – a much wider circulation than the private issues of the same places.[32] The corporation farthings were not only larger in size but they also had the backing of the relevant corporation. These two factors clearly ensured that they were accepted much further afield than their private counterparts.

In the light of this, it is not surprising that the lists of non-Cley tokens are dominated by the corporation issues of Norwich and Yarmouth. Twenty-four corporation issues of Norwich and eighteen of Great Yarmouth account for about a third of the total number of tokens listed in the corpus. This figure accords very closely as a percentage with the numbers recorded by Carnell although the relative proportions of Norwich and Yarmouth tokens do differ.

The small number of King's Lynn corporation farthings recorded, only six, appears strangely low. There are four Lowestoft corporation issues, almost as many, present on the list. It seems that visitors, commerce, and the accompanying use of tokens were coming into Cley from the East and the South rather than from the West. Two Diss corporation farthings reached the area, surely on account of their larger size and the fact that they were corporation issues.

The breakdown of the private issues from outside the Cley area provides no surprises. Most are relatively local and this is usually the case with the issues represented by more than one specimen; there are two halfpennies of James Nailer of Swanton Novers (eleven miles from Cley by road), three farthings of Richard Mansuar of Wells (nine miles), three of Daniel Roll of Holt (four miles), two of Edward Benn of Foulsham (fourteen miles), and two from North Walsham (twenty miles). The most unusual case is furnished by two tokens of the King's Lynn issuer Bryan Midletun, one found at Blakeney and the other at Wiveton. Lynn is 36 miles from Cley by road and it is a strange coincidence that these two tokens have made the journey there; perhaps they travelled to the area together in the purse of a visitor from Lynn and, having been accepted for local use, were lost separately. Or perhaps they were not accepted and were discarded to find their way in night soil to different fields.

Many of the other private tokens are single strays of various Norfolk issuers. Some of these are also local in origin. One is a farthing of John Starlen of Binham, only six miles distant from Cley by road. Starlen's tokens seem to be relatively rare and this is probably the reason why only one has so far been discovered. A halfpenny token of John Partington of Walsingham was issued ten miles away (by road) and another, of William Shildrack of Fakenham, fourteen miles from Cley.

The other Norfolk tokens have come from further afield. From coastal settlements, two more private tokens from King's Lynn have been recovered and three from Great Yarmouth (45 miles distant by road). Only one private token from Norwich (28 miles away by road) has been found. A token of Thomas Dawson of Swaffham was issued 30 miles away (by road).

The fact that most of these well-travelled Norfolk tokens are from the coastal settlements of Lynn and Yarmouth might be taken to suggest that movement of tokens by sea was more common than movement by land. However, both Yarmouth and Lynn were large towns with many issuers and so a few of the products of these two places are likely to be present in any large sample of tokens from any area of Norfolk. The vast majority of tokens seem to have travelled from one place to another by road – when they travelled at all.

There are very few farthing tokens issued outside Norfolk in the corpus. As mentioned above, four corporation issues of Lowestoft have been found in the Cley area. Privately-issued tokens from outside the county are even rarer as finds but they do demonstrate how far individual specimens could sometimes travel. A farthing of Robert Betts of Lowestoft (55 miles by road from Cley) was found at Blakeney whilst one of Robert Rishton from Spalding in Lincolnshire (62 miles away) had travelled some distance before being lost or discarded at Letheringsett. A token of Philip Williams of Cambridge (81 miles away from Cley by road) has been found at Wiveton and one of John Reede of Ely (60 miles away) in the same parish. Finally, a farthing of Francis Godfrey of Bury (61 miles away) was recovered at Blakeney. Tokens from London do turn up as stray finds in Norfolk; none have so far been found in the Cley area.

The number of private farthings from outside the locality of Cley – here defined as within twelve miles – is small, accounting for about fifteen percent of the total number of tokens recovered. This is very different to the picture of token use at Wymondham informed by a recent survey of tokens found there.[33] In Wymondham, as at Cley, the corporation issues of Norwich and Yarmouth were found in significant numbers. However, the tokens of the two Wymondham issuers, John Burrell and Anthony Lock, are almost non-existent as stray finds. As a result, private tokens found at Wymondham come from much further afield. Clearly, in the absence of local products, the inhabitants of Wymondham made use of whatever small change came their way. The abundance of John Wilch's tokens meant that the men and women living in Cley did not need to rely on so many non-local issues.

The final question that remains is how these tokens found their way into the ground. Carnell supposed that most were thrown away and were then deposited on the fields with night soil. The author does not agree with this hypothesis but would rather contend that most of the tokens were lost during the period of their circulating life. The corporation farthings in particular – which account for about forty percent of the sample discussed here – circulated widely across the county and, as discussed above, were clearly not casually thrown away. It seems, that in outlying areas like Cley and its environs, they may have continued in use for a long time. Even the private issues may well have been accepted as small change for many years after the towns and cities of Norfolk had outlawed their use.

In the light of this, the NTP would suggest that the tokens found in the Cley area forming the corpus un-

der discussion here were lost whilst serving as small change. They may then have subsequently found their way onto fields in night soil but this would have been a secondary event, not altering the fact that they were lost during their lives as part of the circulating medium rather than thrown away after they had ceased to have any use whatsoever. It remains possible that John Wilch's tokens became worthless after his death in 1660 but it seems far more likely that, since the George was taken over by his son, they were allowed to continue in use.

Distribution of the Cley issues outside the Cley area

Having considered the tokens found within the immediate environs of Cley, it is time to discuss how far outside those environs tokens issued at Cley circulated. As mentioned above, there are now well over two thousand records of token finds entered on the NTP's list.

Only five of Richard Shawe's tokens have so far been recorded from Norfolk. As we have seen, four of these are from Blakeney, next door to Cley. One travelled some way further west to Ringstead, a distance of about thirty miles by road. This very limited distribution of recorded finds suggests that Shawe's tokens did not generally travel very far beyond the immediate area of Cley. It also suggests an issue that was small to begin with. The 1667 issue date – as befits a halfpenny token – is also relatively late and it may be that Shawe's tokens did not have long enough in circulation to travel far or to be lost in large numbers. The use of only one pair of dies also suggests that large numbers were not produced.

In terms of issue volume, Wilch's tokens were a different matter and it is clear that a reasonably large number were produced to begin with. As discussed above, many of his tokens have been found in the immediate environs of Cley, especially at Wiveton and Blakeney where Discovery Tours predominantly detect. Others have been found at the nearby settlements of Salthouse (two miles by road from Cley), Letheringsett (three miles), Sheringham (eight miles) and Hindringham (eight miles). However, only two have so far been found much further afield, one from Titchwell, about twenty miles west along the coast, and another from North Walsham, approximately twenty miles south-east of Cley. Plainly, they did not generally move very far from their area of issue.

So few of the Cley Holt Hundred types have been recorded that any conclusions on how far they travelled are somewhat speculative. The five recorded examples have been found at Blakeney, a mile away, two at Woodbastwick (33 miles), Trowse (29 miles) and Postwick (31 miles). This does suggest, however, that they could circulate some distance. Those found at Trowse and Postwick, on the outskirts of Norwich, probably represent tokens that were being used in the streets of the city when lost, subsequently finding their way to where they were recovered during the transportation of night soil from Norwich. Interestingly, a wider circulation relative to the Wilch issues – on account of their larger size – is paralleled by the way that corporation farthings travelled further than the private issues of traders in the same town or city.[34]

Conclusions

It is hoped that this article has added to Peter Carnell's brave beginnings nearly twenty years ago. Some conclusions are obvious. First, the farthings of John Wilch must have been well-known in the immediate environs of Cley but did not, with the odd exception, travel very far beyond this area. This trend is identical to that revealed by the circulation patterns of tokens issued at other small settlements. For example, the way in which the Foulsham issues moved – or did not move – furnishes a very close parallel.[35]

Second, the corporation issues of Norwich and Great Yarmouth were evidently also a very common currency in the Cley area. Unlike the Wilch farthings, they also circulated widely across Norfolk. The relative lack of King's Lynn corporation farthings is strange and might seem to suggest that currency was moving into Cley more from the East and from the South rather than from the West. Admittedly, the King's Lynn corporation farthings do seem to have been produced in slightly smaller numbers than those of Norwich and Yarmouth. Nonetheless, they were still issued in what were essentially very large numbers indeed and, all things being equal, we might have expected to have seen more of them in the Cley area.

Third, the halfpenny tokens of Richard Shawe and the Cley Holt Hundred farthings are rare compared to the issues of John Wilch. Their date of issue is late but no later than some other tokens which are very common in their area of issue such as those of Edward Benn of Foulsham dated 1668. Those of Richard Shawe were probably not issued in large numbers in the first place. The Holt Hundred issues seem to have come too late to have been lost in large numbers but many seem to have remained above ground. Probably there were no effective measures for their redemption when the use of unofficial farthings was outlawed in 1670 and so many stayed above ground, put aside as curiosities that now reappear on the market from time to time.

The picture formed from the Cley area token corpus is thus in accord with the NTP's work across Norfolk as a whole. Corporation issues were generally dominant but, in many small localities, they were no more dominant than some of the tokens issued by the men and women of those places. Examination of the tokens found in Cley exemplifies this trend and the sample considered here – over five times that discussed by the late Peter Carnell – parallels closely the breakdown in his lists. Large amounts of information can sometimes revise the picture provided by smaller ones but in this instance they have merely reinforced it.

APPENDIX I: Tokens found in the Cley area

Issue Location	Issuer's name and date if given	Quantity	Find Spot	HER Number
Binham	Starlen, John (1659)	1	Wiveton	15636
Cley	Claye in Farthing	1	Blakeney	33247
Cley	Shawe, Richard (1667)	2	Blakeney	33247
Cley	Shawe, Richard (1667)	2	Wiveton	15636
Cley	Wilch, John	8	Blakeney	33247

Issue Location	Issuer's name and date if given	Quantity	Find Spot	HER Number
Cley	Wilch, John	1	Blakeney	33820
Cley	Wilch, John	9	Blakeney	33837
Cley	Wilch, John	2	Blakeney	58007
Cley	Wilch, John	4	Cley	32332
Cley	Wilch, John	1	Cley	62204
Cley	Wilch, John	1	Letheringsett	28045
Cley	Wilch, John	2	Salthouse	43197
Cley	Wilch, John	1	Salthouse	44081
Cley	Wilch, John	3	Wiveton	15636
Cley	Wilch, John	1	Wiveton	25893
Cley	Wilch, John	2	Wiveton	33250
Cley	Wilch, John	1	Wiveton	39543
Cley	Wilch, John	2	Wiveton	49883
Cley	Wilch, John	2	Wiveton	60095
Cley	Wilch, John	1	Wiveton	60176
Diss	Corporation (1669)	2	Salthouse	43197
Fakenham	Shildrack, William (1657)	1	Salthouse	44081
Foulsham	Benn, Edward (1668)	1	Blakeney	33820
Foulsham	Benn, Edward (1668)	1	Blakeney	33837
Holt	Roll, Daniel (1666)	2	Blakeney	33247
Holt	Roll, Daniel (1666)	1	Blakeney	33820
King's Lynn	Corporation (1668)	1	Blakeney	33247
King's Lynn	Corporation (1668)	1	Blakeney	33819
King's Lynn	Corporation (1668)	1	Blakeney	33820
King's Lynn	Corporation (1668)	1	Salthouse	44081
King's Lynn	Corporation (1669)	1	Blakeney	33247
King's Lynn	Corporation (1669)	1	Blakeney	33837
King's Lynn	Garrard, Seth (1652)	1	Blakeney	33837
King's Lynn	Midletun, Bryan	1	Blakeney	33820
King's Lynn	Midletun, Bryan	1	Wiveton	15636
King's Lynn	Wolterton, Richard (1656)	1	Salthouse	44081
North Walsham	Cooke, John	1	Wiveton	25893
North Walsham	Richardson, Peter (1657)	1	Wiveton	6143
Norwich	Corporation (1667)	1	Blakeney	33819
Norwich	Corporation (1667)	1	Blakeney	33820
Norwich	Corporation (1667)	4	Blakeney	33837
Norwich	Corporation (1667)	2	Cley	42836
Norwich	Corporation (1667)	4	Salthouse	44081
Norwich	Corporation (1667)	1	Wiveton	33250
Norwich	Corporation (1667)	1	Wiveton	60095
Norwich	Corporation (1668)	1	Blakeney	33247
Norwich	Corporation (1668)	1	Wiveton	33250
Norwich	Corporation (1668)	2	Blakeney	33837
Norwich	Corporation (1670)	1	Blakeney	33803
Norwich	Corporation (1670)	1	Blakeney	33247
Norwich	Corporation (1670)	1	Blakeney	33819
Norwich	Corporation (1667-70)	2	Blakeney	33247
Norwich	Corporation (1667-70)	1	Wiveton	33250
Norwich	Leverington, John	1	Salthouse	44081
Swaffham	Dawson, Thomas (1659)	1	Wiveton	15636
Swanton Novers	Nailer, James (1667)	1	Blakeney	58007
Swanton Novers	Nailor, James (1667-71)	1	Wiveton	39543
Walsingham	Partington, John	1	Blakeney	33837
Wells	Mansuar, Richard	1	Blakeney	33250
Wells	Mansuar, Richard	1	Blakeney	33819
Wells	Mansuar, Richard	1	Blakeney	33837
Yarmouth	Corporation (1667)	5	Blakeney	33247
Yarmouth	Corporation (1667)	1	Blakeney	33820
Yarmouth	Corporation (1667)	1	Blakeney	33837
Yarmouth	Corporation (1667)	1	Blakeney	58007
Yarmouth	Corporation (1667)	1	Wiveton	33803
Yarmouth	Corporation (1667)	1	Wiveton	39543
Yarmouth	Corporation (1669)	1	Blakeney	33820
Yarmouth	Corporation (1669)	1	Blakeney	33837
Yarmouth	Corporation (1669)	1	Letheringsett	30017
Yarmouth	Corporation (1669)	1	Salthouse	44081

Issue Location	Issuer's name and date if given	Quantity	Find Spot	HER Number
Yarmouth	Corporation (1669)	1	Wiveton	44041
Yarmouth	Corporation (1669)	1	Wiveton	49883
Yarmouth	Corporation (1669)	1	Wiveton	58910
Yarmouth	Corporation, (1667-1669)	1	Salthouse	44081
Yarmouth	Lincolne, William (1652)	1	Blakeney	33837
Yarmouth	Trotter, Clement (1653)	1	Salthouse	44081
Yarmouth	Uncertain private (1656)	1	Wiveton	33250
CAMBRIDGESHIRE				
Cambridge	Williams, Philip	1	Wiveton	33250
Ely	Reede, John (1656)	1	Wiveton	60095
LINCOLNSHIRE				
Spalding	Rishton, Robert (1666)		Letheringsett	28045
SUFFOLK				
Bury St. Edmund	Godfrey, Francis	1	Blakeney	33247
Lowestoft	Corporation	1	Cley	62204
Lowestoft	Corporation	2	Salthouse	44081
Lowestoft	Corporation	1	Wiveton	33250
Lowestoft	Betts, Robert (1655)	1	Blakeney	33819

APPENDIX II: Cley tokens outside the Cley area

Issuer's Name	Williamson	Find Spot	HER Number
Claye in Farthing	19	Postwick	51834
Claye in Farthing	19	Trowse	40903
Claye in Farthing	19	Woodbastwick	49802
Claye in Farthing	19	Woodbastwick	51263
Shawe, Richard	20	Ringstead	30558
Wilch, John	21	Hindringham	29133
Wilch, John	21	North Walsham	56657
Wilch, John	21	Titchwell	41159

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* Available online at: https://norfolktokenproject.wordpress.com/downloads/

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Finally, Michael Dickinson, doyen of 17st century token studies has been most helpful in offering dates for the two varieties of John Wilch token.

Notes

1 Carnell 2001.
2 See Marsden 2016a, 13-17 for a discussion of the Norfolk corporation issues.
3 See Thompson 1989 for an excellent survey of this subject.
4 Oddie 2016. Available online at the NTP website: norfolktokenproject.wordpress.com
5 See Thompson and Dickinson 1993, nos. 3049-59.
6 Wodderspoon 1859, 251.
7 Williamson 1967, 842, no. 20, Norweb 1993, 3018, Carnell 2001, 29-30, Marsden 2016a, 23.
8 Marsden 2015, 297.
9 Marsden 2015, 296-301. See also Marsden 2018 for a fuller discussion on the ban on privately-issued tokens in Norwich, King's Lynn and Great Yarmouth.
10 Williamson 1967, 849, no. 86. Marsden 2016a, 38.
11 Williamson 1967, 850, no. 99. Marsden 2016a, 40.
12 Frankel & Seaman 1983, 48, and Seaman 1988, 50.
13 Carnell suggests that the family moved to Blakeney by 1665 but the baptism of Priscilla at Cley in 1667 makes this unlikely.
14 Carnell 2001, 30. For the token see Williamson 1967, 846, no. 58.
15 Frankel and Seaman 1983, 72, and Seaman 1988, 54.
16 Wilch's tokens are certainly farthings and not, as Carnell states, halfpennies. Their size is that of a farthing token and halfpennies do not appear in the county until the late 1660s, several years after Wilch's death.
17 Williamson 1967, 842, no. 21. Thompson and Dickinson 1993, 3019-20.
18 Thompson and Dickinson 1993, 3411.
19 Thompson 1984, 725.
20 Michael Dickinson, personal communication 17/9/2017.
21 Hawes 2005, 110. The will was proved in the Archdeaconry Court of Norwich. Available on microfilm at the Norfolk Record Office: MF/RO 329, no. 42.
22 Seaman 1988, 46.
23 Frankel and Seaman 1983, 48.
24 Seaman 1988, 46.
25 These are NRS 20470a, 20471a and 20471b. Another document records the release by Godfrey Hemblinge to John Wilch of the George on 12st January 1681/2: MC 3156/1, 1038X7.
26 Thompson and Dickinson 1993, 3017.
27 Marsden 2013, 65-6.
28 Carnell 2001, 31-2.
29 Dickinson 2004, 166.
30 Thompson 2009.
31 Thompson and Dickinson 2011, no. 9439. See also Marsden 2015, 306.
32 Marsden 2015, 302. The maps do not show the large number of corporation farthings (and many private issues) recovered from the Cley area; these records have mainly been recovered recently from the Identification and Recording Service's paper files in the course of the research for this article.
33 Marsden 2015, 303-4. Also see Marsden 2018a (forthcoming).
34 Marsden 2015, 302-5.
35 Marsden 2015, 302-3.

North Norfolk from the Sea: Marine Charts before 1700

John Wright

Synopsis
Blakeney Haven and other harbours along the north Norfolk coast have had a long history of maritime activity with merchants trading around the North Sea and the Baltic, and a fishing industry once extending to Iceland. How did sailors find their way around these waters before modern methods of navigation became available? This article describes the development of marine charts before 1700 and shows how some features of the Norfolk coastline have been portrayed on them.

1. Introduction

In 1586 John Darby prepared a map of Blakeney Haven showing in some detail the estuary of the River Glaven. Previous articles in this Journal have commented on particular aspects of this map and on the reason for its creation. The sea at the top emphasises the impression of a harbour seen from the landward side. This hand-drawn map was not designed for navigation: one beacon is marked, well inside the estuary, but no buoys. Yet masters of ships visiting north Norfolk would have needed to know the nature of the harbours there and how to reach them, and Haven men would have had the same needs as they travelled to ports further afield. What maps could they use before modern ones became available?
Methods of navigation improved considerably during the 1700s with the publication of Halley's worldwide map of magnetic variation, the invention of the octant and the sextant, and the construction of Harrison's chronometers. Such introductions enabled shipmasters to find their position at sea more accurately and also led to more accurate charts. The loss of Sir Cloudesley Shovell (a Haven man who became Admiral of the Fleet) and nearly 2,000 sailors on the Isles of Scilly in 1707 is a reminder that greater accuracy was sorely needed. The officers in Shovell's fleet did not know exactly where they were and, in any case, the charts they had were not accurate.

Fig. 1 shows an extract from one of the best charts available in 1707. It was first published by the Dutchman Johannes van Keulen in 1681 and re-issued, with minor changes, many times thereafter. A quick glance shows that it is geographically inaccurate, with some unusual spelling and a puzzling array of lines. Why the errors and where does it fit into the history of marine charts?

Early medieval mariners accumulated much knowledge about their usual routes which they passed on to their successors, either orally or in writing. What written guidance survives and what does it tell us about

Fig. 1. Extract from chart by Johannes van Keulen (c.1688-1704)

medieval voyaging? Is it really true that mariners kept within sight of land or did they head out to sea directly towards their destinations?
To answer such questions, this article describes the development of written sailing instructions and the production of both manuscript and printed charts before 1700.

The first section comments on navigation methods and then outlines what is known about sailing directions and charts in the Mediterranean and their subsequent development for the North Sea. The second section looks at the work of three prominent cartographers who, amongst many others, produced collections of charts for western Europe in the later 1500s and 1600s: Lucas Waghenaer, Johannes van Keulen and Greenvile Collins. All produced charts with north Norfolk havens marked on them. The following section comments on what these charts have to say about the Norfolk coastline in general and the final section looks in more detail at charts of Blakeney Haven.

2 Navigation before printed charts

Sailing directions

For thousands of years Polynesian people made long voyages between the scattered islands of the South Pacific using their deep knowledge of the stars, ocean currents, wave patterns, weather systems and the habits of birds. Oral traditions passed on this knowledge, sometimes secretly, sometimes encapsulated in songs and stories, and sometimes demonstrated on small di-

agrams made of sticks and shells.[1] In Europe the Phoenicians may have reached Britain well before the Romans made their first fearful crossing of the Channel but it was the Norse who led the way in long-distance voyaging. Their settlement of Iceland began in the 870s, unsettling some Irish monks already there, and a century later they were setting up homes in Greenland.

To reach Greenland from Norway they sailed between the Shetland Islands and the Faroe Islands, leaving Iceland some 150 miles to the north, to reach the south-eastern shores of Greenland, a distance of over 1,000 miles. This feat of navigation preceded the use of the compass and relied on keeping the midday sun, or the Pole Star, at the same angle to the horizon. This ensured that the ship was sailing due west, or east, along a particular latitude. If the angle became greater or smaller then the ship was deviating from the intended course and a correction would be made – although measuring the angle between the Pole Star and a wavy horizon from the deck of a heaving ship in the north Atlantic (at night and assuming no cloud cover) was no easy matter. The course from just north of Bergen straight across to Hvarf in Greenland was roughly the latitude 61 degrees north. The Vikings had no sure method of finding longitude, nor did anyone else until the introduction of chronometers in the late 1700s.[2]

Despite these Viking achievements, the nursery for European marine charts and their continued development was the Mediterranean, an enclosed and almost non-tidal sea with many island 'stepping stones'. The Phoenicians developed a substantial knowledge of celestial navigation and Homer shows that he is aware of it. Odysseus decides to go home from Troy by a coastal route but other heroes choose a sea route that would have been out of sight of land for long periods. They knew how to use stars for navigating at night and, like the Vikings much later, how to sail along a latitude. The Greek historian, Herodotus, writing in the 5th century BC, also describes the use of a sounding lead to bring up a sample of the seabed thereby helping to gauge a ship's position.

These examples show that from a very early period navigation methods consisted of far more than proceeding from one headland to the next. No doubt that was often sufficient, but there was always the danger of being blown onto a lee shore when it would have been safer out at sea.

Knowledge inherited by one generation was passed on to the next. The Greeks were among the first to prepare written sailing directions, which they called *periploi*. Very few have survived; the most comprehensive one describes ports and routes through the Red Sea and around the Indian Ocean.[3] This use of written directions continued, or was revived, in the early medieval period, when the texts became known as *portolani*. The earliest one known, *Lo Compasso da Navigare* ('compasso' meaning a circuit), is dated 1296 but was probably compiled at least 50 years earlier.[4] It contains distances and bearings between ports clockwise around the Mediterranean and Black Sea, as well as depths, anchorages and landmarks for entering harbours. Much of it relates to coastal routes but many routes out of sight of land are also described, with bearings and distances. It is primarily the use of the compass which distinguishes the *portolano* from the *periplus*.

The area covered by sailing directions was extended to north-west Europe increasingly during the 1300s. The earliest surviving directions in English were written some time during the 1400s and copied in 1486 by William Ebesham, a scribe employed by Sir John Paston in the service of the Earl of Oxford when he was Lord High Admiral of England.[5] These very brief instructions run southwards from Berwick through the English Channel, down the Atlantic coasts of France and Spain, and then round the coasts of Wales and Ireland. There is no mention of northern Europe, or Iceland, a regular haunt of north Norfolk fishermen. At this time the coast from the Low Countries to the Baltic was covered by directions in Dutch and German.

For centuries sailing directions remained in manuscript form. One of the earliest printed versions, focusing on the English Channel and the Bay of Biscay, was published in 1483-84 by Pierre Garcie as *Le Routier de la Mer*, with an expanded edition in 1520 and many reprints thereafter. Garcie's first *Routier*, corrupted to 'rutter' in English, was translated by William Copeland and published in 1528 as the first printed version in English.[6] Editions issued from the 1550s included more detailed instructions for the east coast of England, based on those written out by William Ebesham and first printed separately by Richard Proude in 1541.[7] Sailing directions of this kind were continually developed to become the extensive Admiralty sailing directions (or 'pilots') of today.

Manuscript charts

During the 1200s, charts were being added to the manuscript handbooks containing sailing directions. Now known as *portolan charts*, or just *portolans*, the oldest date from around 1300 and depict the whole Mediterranean coastline. On these portolans the coastlines are shown with remarkable accuracy but it is not known for certain how this was achieved. They carry a dense sequence of place-names, packed in at right-angles to the coast, the more important ones usually in red, others in black. The charts are furnished with the compass rose, and 'rhumb lines' radiating from the centre in the direction of compass points enabled sailors to read off bearings of one port from another. The magnetic compass was in use during the 1100s in the form of a needle magnetised by a piece of ironstone (or 'lodestone') and allowed to rotate to show (magnetic) north. Soon the needle was attached to a 'wind rose' card which had for centuries been the means of describing directions in the Mediterranean where winds from each direction usually had particular characteristics of temperature, dryness or saltiness and could be used to denote the cardinal and intermediate points.

The accuracy of portolan charts and their practical purpose are in striking contrast to the Hereford *Mappa Mundi*, made about 1300, which shows a world based on theology rather than geography.[8] Yet the charts still had to be used in conjunction with the written portolanos. Even these could not convey all that a sailor would need to know on approaching a harbour, and a chart far less.

Fig. 2 illustrates a portolan chart with the usual excellent outline of the Mediterranean Sea and the Black Sea but with a less realistic portrayal of north-west Europe.[9] Dated 1569, it is a late example; early ones are very similar but are often in poorer condition and more difficult to reproduce in publications where densely-packed place-names are rarely legible. In eastern England, Lynn and Yarmouth can often be deciphered but it is difficult to say from illustrations

Fig. 2. Portolan chart by Forlani (1569)

whether Blakeney features on Mediterranean portolans. On this example some notional cities were drawn in later, following common practice on maps being made of lands newly discovered. Red arrows within circles indicate magnetic north but Forlani still uses the old practice of using winds to show directions. The 'M' in the North Sea stands for 'Maestro' meaning north-west (derived from the Mistral wind), and in Egypt the 'S' is for the Scirocco wind (meaning south-east). The cross symbol in Turkey denotes east, a recognition that on many earlier maps east was represented by Jerusalem.

Beyond the Strait of Gibraltar, the Atlantic was a more daunting place for Mediterranean sailors, with rougher weather, strong tides, and no known land beyond the horizon. Both the Atlantic and the North Sea were therefore less well-known and coastlines shown on the north-west periphery of portolan charts are not as accurate as for the Mediterranean. In contrast, the Atlantic and North Sea coasts were home waters for sailors living there – as Chaucer described at the end of the 1300s. His shipman riding to Canterbury could 'reckon well his tides and currents', was skilled in navigation, and 'knew all the havens from Gotland to the Cape of Finisterre, and every creek in Brittany and in Spain'.[10] He might never have seen a portolan chart but he may have had a rutter – although he would have needed at least two in different languages to cover the whole area described by Chaucer.

Within the course of one lifetime the world known to the Europeans was to expand enormously. The Portuguese had been working their way down the coast of Africa and finally rounded the southern Cape in 1488, Columbus reached the Caribbean in 1492 and Magellan's round-the-world expedition was completed in 1522. The lands discovered were soon being mapped and though some of the earliest maps were in the form of extended portolan charts, world maps and marine charts would soon go their separate ways.

Early portolan charts are usually Italian or Majorcan in origin but in the early 1500s the Portuguese became dominant. It was they who started to add coastal profiles to their written portolanos which by this time were beginning to be printed. But despite the voyages of discovery Portuguese and Spanish portolans still showed the North Sea and the Baltic poorly. Mediterranean traders did not intrude much into Hanseatic territory, and those of the Hanse, who seem not to have carried portolan charts, rarely ventured into the Mediterranean.

Portolan charts had been known in England at least from the 1360s and by 1500 foreign-born chart-makers, especially Portuguese and Dutch, were creating charts for English clients. During the 1500s it was the Dutch who became increasingly prominent in chart-making as their ships expanded their trading range and Antwerp became the biggest commercial centre in Europe. A 'Thames School' of English chart-makers did develop, but not until the late 1500s when many printed charts were already available. They were copyists rather than cartographers and most of their charts were manuscripts, and mainly for areas overseas.

If the English had little enthusiasm for chart production it was because most Tudor seamen were unconvinced of their merits – they could get from rutters what they needed to know, especially as some later ones contained sketches of landmarks and sections of coast. In the Mediterranean, portolan charts enabled pilots to find the distance and bearings between any two ports, not just those listed in the rutters. This facility could not be used in northern waters where meridians converging towards the north pole meant that a constant bearing would take a ship not on a straight course but on a spiral.

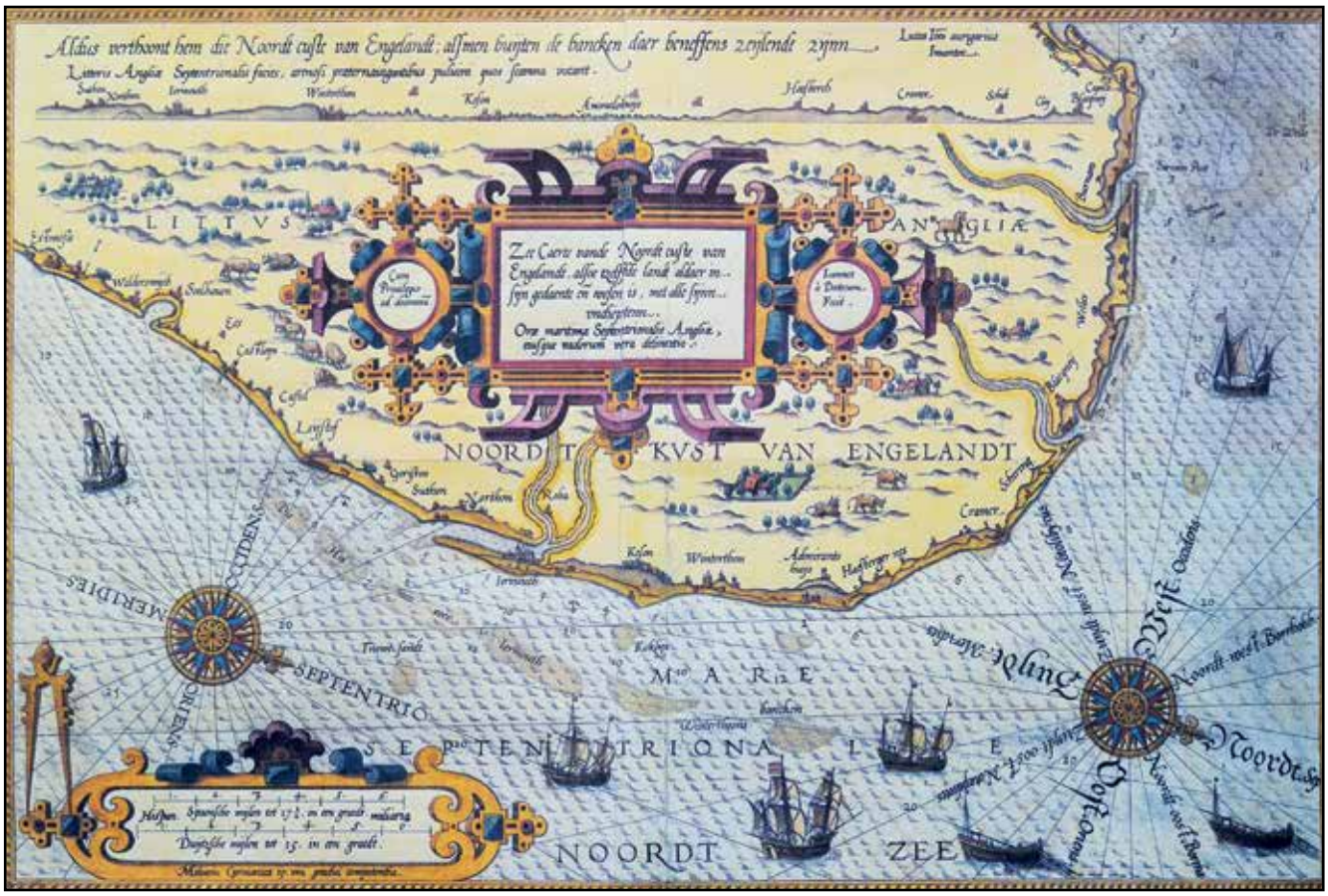


Fig. 3. Chart by Waghenaer (Latin edition 1586)

3 Printed charts

Lucas Janszoon Waghenaer

With the Dutch ascendancy in trade and mapping during the 1500s it is no surprise that one of their own was to envisage and create the first marine atlas of printed charts. Lucas Janszoon Waghenaer was born in 1533 (or 1534) in Enkhuizen, just inside the former Zuider Zee, and grew up there during its boom period as a fishing port and trading centre. He spent a long time at sea and acquired an extensive knowledge of the coasts of western Europe. In later years his interest in mapping led to the publication of some of his own maps and in 1579 he gave up the sea and obtained various positions ashore in order to fund, with considerable difficulty, his revolutionary work, the *Spieghel der Zeevaerdt.*[11]

This atlas was the first to fuse the two traditions of sailing directions and marine charts. The directions continued long-standing practice but his charts had no direct precedent and were to remain influential for many years. The atlas was issued in two volumes, each with 22 charts covering the coastline of western Europe, and with a portolan-style chart of the whole area in the first of them. All the charts were prepared to a standard format with the same scale, about 1: 400,000, although harbours and estuaries are shown to a larger scale with the intervening coastlines reduced. The charts carry the compass rose, but no rhumb lines were drawn across the charts, and no projection (for showing latitude and longitude) was used.

Waghenaer's charts went close to introducing standard symbols for shoreline features and dangers, such as beacons, anchorages, rocks and shoals. Features onshore include prominent houses, church towers and windmills. Particularly important were soundings in fathoms, at half-tide values, many of which Waghenaer had taken himself. Another innovation was the inclusion of coastal profiles on each map, rudimentary ones having appeared in some earlier sailing directions.

Each chart was allowed four pages, the first contained sailing instructions for the area, the two facing pages carried the chart, and the back page was blank – Waghenaer expected shipmasters to make their own additions and corrections. In the first volume were 33 pages on navigation techniques, some never printed before. The charts for the Channel coast of England are in the first volume and those for the North Sea coast are in the second.

The first part of the *Spieghel der Zeevaerdt* was published in 1584 and the second in 1585. Copies quickly reached Queen Elizabeth's Court where admiration was tempered by some disappointment that the language used was Dutch. Such comments persuaded Waghenaer to issue in 1586 an edition with text in Latin, the *lingua franca* of Europe at the time, although Dutch was retained on the charts. This still did not satisfy the English Court and Anthony Ashley, Clerk to the Privy Council, was charged with producing a text in English, together with a completely new set of plates. The result was published, with just a few minor changes from the original, in October 1588 as *The Mariners Mirrour*. Some authors have described this as a 'pirated' edition but not so, because Waghenaer's copyright was valid only for the Low Countries. Waghenaer subsequently published further editions, including Dutch (1589), German (1589) and French (1590), but none in Spanish.[12]

Fig. 3 shows Waghenaer's chart of the coast of East Anglia from Walberswick and Southwold round to St Edmund's Chapel at Hunstanton. Although the accompanying sailing instructions are in Latin the words on the chart are still in the original Dutch with some Latin additions. The long coastal profile at the top, Waghenaer's own invention, is intended to give pilots an impression of the coastline viewed from seaward together with prominent seamarks on shore. Many coastal settlements are named but nothing at all is shown inland. Sea monsters do appear on some of Waghenaer's charts but on this one Dutch ships typical of the period fill the sea, two of them herring busses with masts lowered and operating drift nets. The chart dimensions are 20 ins x 13 ins. (Detailed comments on particular coastal features are made in Section 4 below).

Waghenaer's main purpose was to help pilots recognise landfalls, to enable them to derive compass directions for harbours, and to show dangerous features to be avoided. Although the atlas sold well, criticisms were soon being made. Many shipmasters thought it too expensive and too big for practical use, the charts were not sufficiently accurate and the sailing instructions were less detailed than those in the rutters they were used to. It also became apparent that Waghenaer had not always used the best sources, especially for England and Scotland.

Waghenaer's immediate response was to prepare a new set of charts which he published in 1592 as the *Thresoor der Zeevaert*. This atlas contained only 20 charts but they were accompanied by a much longer and more detailed text on navigation methods and sailing instructions. The charts were drawn to a smaller scale than those in the *Spieghel* (about 1: 600,000) and the coast profiles were moved from the charts to the text. The result, in a smaller format than the *Spieghel*, was much more like the old and trusted rutters but it set new standards for works of that kind.

In 1598 Waghenaer produced a third atlas, cheaper than the previous two, still with detailed text and many coast profiles but no charts. He died in 1606, no doubt with the satisfaction that his many competitors had produced no atlas demonstrably better during his lifetime. One result of his pioneering work was that for many years all such marine charts were known to English sailors as 'waggoners'.

Johannes van Keulen

With the rise of Dutch voyages to India and beyond, and commercial expansion in Flanders and West Friesland, Waghenaer and his atlases faced increasing competition from other cartographers and printers based in Antwerp and elsewhere in the Low Countries. Aelbert Haeyen, for example, a pilot from Haarlem, produced charts in 1585 that were superior to Waghenaer's in presenting a better description of banks, channels and harbour bearings in a smaller format and accompanied by a more detailed text. They were also cheaper, but they covered only the coasts of the Low Countries and northwards to Denmark, and although the Amsterdam City Council intended to commission more they found that Waghenaer had already taken the market.

In 1589 Cornelis Claesz (1551-1609), a publisher and bookseller resident for a while in Enkhuizen, purchased Waghenaer's worn-out plates and the copyright and published new editions of the *Spieghel* while Waghenaer himself was busy with his next atlas, the *Thresoor* (1592). Then in 1608 Willem Blaeu (1571-1638) published an atlas with 42 charts for north and west Europe which resembled the *Thresoor* and went into many editions with translations into French and English. When his copyright expired Johannes Janssonius, also known as Jan Jansson (1588-1664), published essentially the same work in 1620 with four reprints. Blaeu responded with a new and enlarged atlas, the *Zeespieghel*, with 15 editions between 1623 and 1652, four of them with English text. In 1632 Jacob Colom (1600-1673) produced an atlas purporting to correct errors in Blaeu's work, provoking yet another round of publications.

Among the many competing Dutch chart-makers and printers of the 1600s it was the van Keulen family who were to achieve long-lasting prominence. The early chart-makers like Waghenaer and Haeyen drew on their long experience as pilots but in the 1600s there were few such people in the trade and chart-makers typically obtained their information from people who had been to sea and from charts already published. There was little innovation until Johannes van Keulen (1654-1711), a bookseller and publisher in Amsterdam, published in 1680 the first part of his five-volume *Zee-Atlas* with 30 original charts. This was followed immediately in 1681-85 by 135 charts in the more ambitious and longer-lasting *Nieuwe Groote Lichtende Zee-Fakkel*, also in five volumes, with the first covering the North Sea and the Baltic and the second including the North Sea and Channel coasts of England. The *Zee-Fakkel* was generally regarded as the best sea atlas in its day with charts that were considered detailed and up-to-date, although later editions did not keep pace with expanding knowledge.

In 1693 Johannes acquired the stock of rival publisher Hendrik Doncker, having already taken over copperplates, stock and copyrights from many other firms, including Blaeu, Goos and Hondius. His son Gerard van Keulen (1678-1726/7), primarily an engraver and mathematician, took over the business in 1704 and expanded it, producing books on navigation and geography and hundreds of manuscript charts. His son Johannes was to take over after Gerard's death and was made Hydrographer to the Dutch East India Company, a post created to recognise the service the firm already provided. He published in 1753 the sixth and last volume of the *Zee-Fakkel* containing the previously secret maps of that Company. By the end of the 1600s the van Keulen firm was the only chandler with a printing section left in Amsterdam; it continued to prosper until it was wound up in 1885.

In his editions of the *Zee-Fakkel* Gerard van Keulen was one of the first to issue charts using Gerard Mercator's projection, even though Mercator, of German origin and Flemish upbringing, had published a world map on his new projection in 1569. The essence of his projection was that a 'rhumb line' of constant bearing (between two ports for instance) remained a straight line on a map if the lines of latitude were spaced ever more widely as they approached the poles. This should have been convenient for long-distance voyages but the difficulty of measuring distances discouraged its use at sea. The problem was solved by Edward Wright's 1599 publication *Certaine Errors in Navigation* which for the first time explained Mercator's projection and contained an accurate scale multiplier for each minute of latitude (up to 75 degrees) which enabled charts to be constructed and used much more easily. He also issued the first world map to be produced in England.

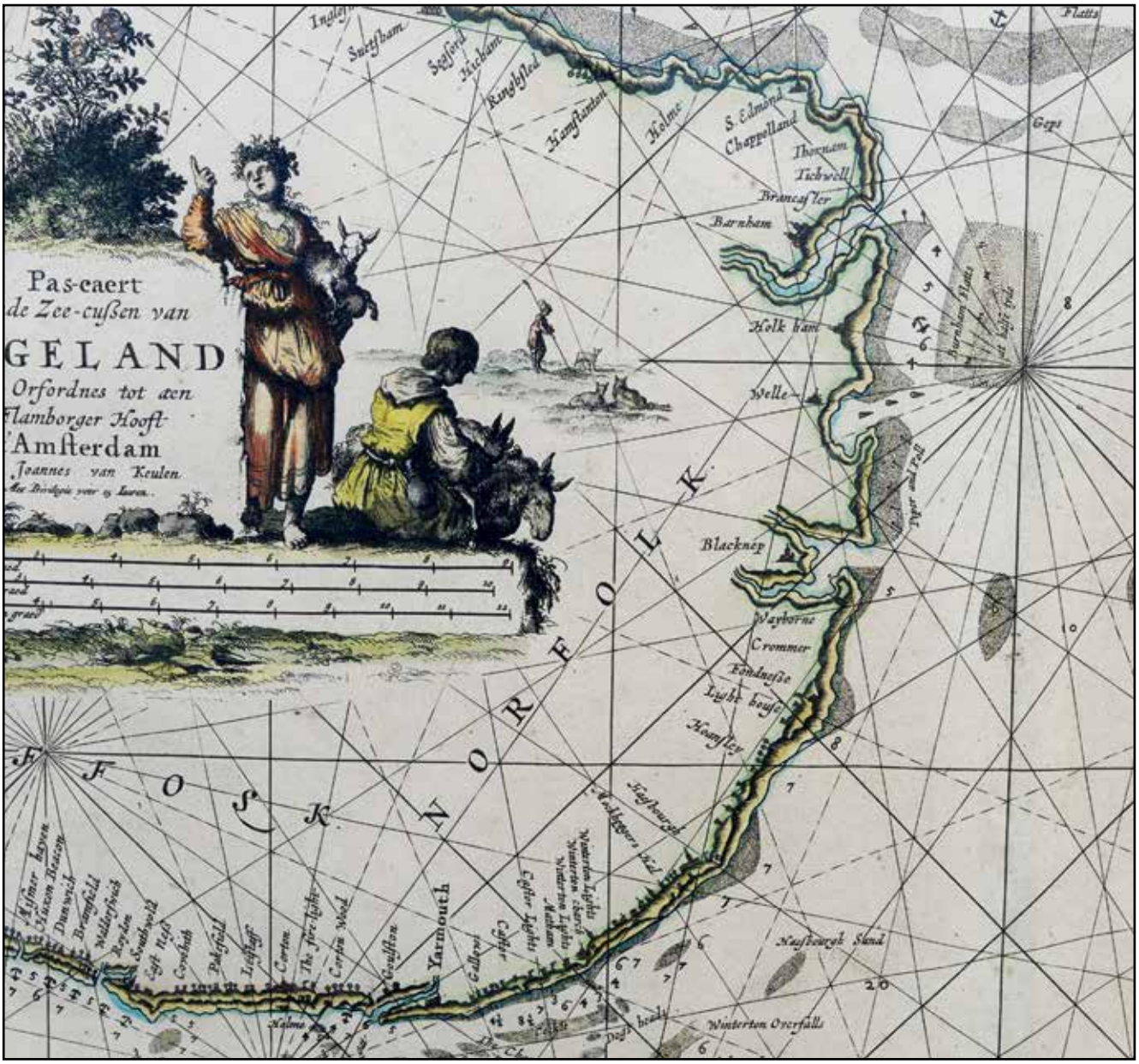


Fig. 4. Extract from chart by Johannes van Keulen (c.1688-1704)

Much later, in 1645, Robert Dudley published in Florence his *Dell' Arcano del Mare*, a marine encyclopedia which contained the first world atlas by an Englishman and also the first world atlas on the Mercator projection. The van Keulens' *Zee-Fakkel* eventually grew to comprise c.400 charts of the maritime world, using the Mercator projection, and remained in print until c.1800 with over 120 editions in various languages.

Fig. 4 is an extract from Johannes van Keulen's chart of the coast between Orfordness and Filey in Yorkshire made some hundred years after Waghenaer's chart (fig. 3).[13] There are a number of similarities. The scale of the chart is the same as Waghenaer's, with estuaries also shown to a larger scale than the coast between them. Likewise latitudes are absent, van Keulen's grid being composed of north-south and east-west (magnetic) lines emanating from each compass rose. Only coastal settlements are shown together with prominent navigational features, such as lights and sandbanks, anchorages and depth measurements. Van Keulen's chart shows more settlements than Waghenaer's, and more sandbanks, but does not include a coastal profile, nor is the sea enlivened by sea monsters or ships. The chart measures 23 ins by 20 ins.

More detailed comments on the Norfolk coastal features are made in Section 4 after introducing the work of Greenvile Collins.

Greenvile Collins

The commentary so far has emphasised the dominance of the Dutch in the preparation of marine charts in the later 1500s and 1600s. This activity was not accidental. The portolan charts of the Mediterranean had been produced by the states most heavily engaged in maritime trade, and the discovery of lands beyond Europe by the Portuguese and Spanish was also accompanied by a surge in their chart-making. Soon it was the Dutch who began to challenge Iberian empire building with the development of their commerce in the East Indies as well as their fishing industry in the North Sea. By comparison England was a slow starter but in the 1600s competition at sea and political events led to a series of Anglo-Dutch wars. In 1667, during the second of these, the Dutch sailed up the Medway to Chatham

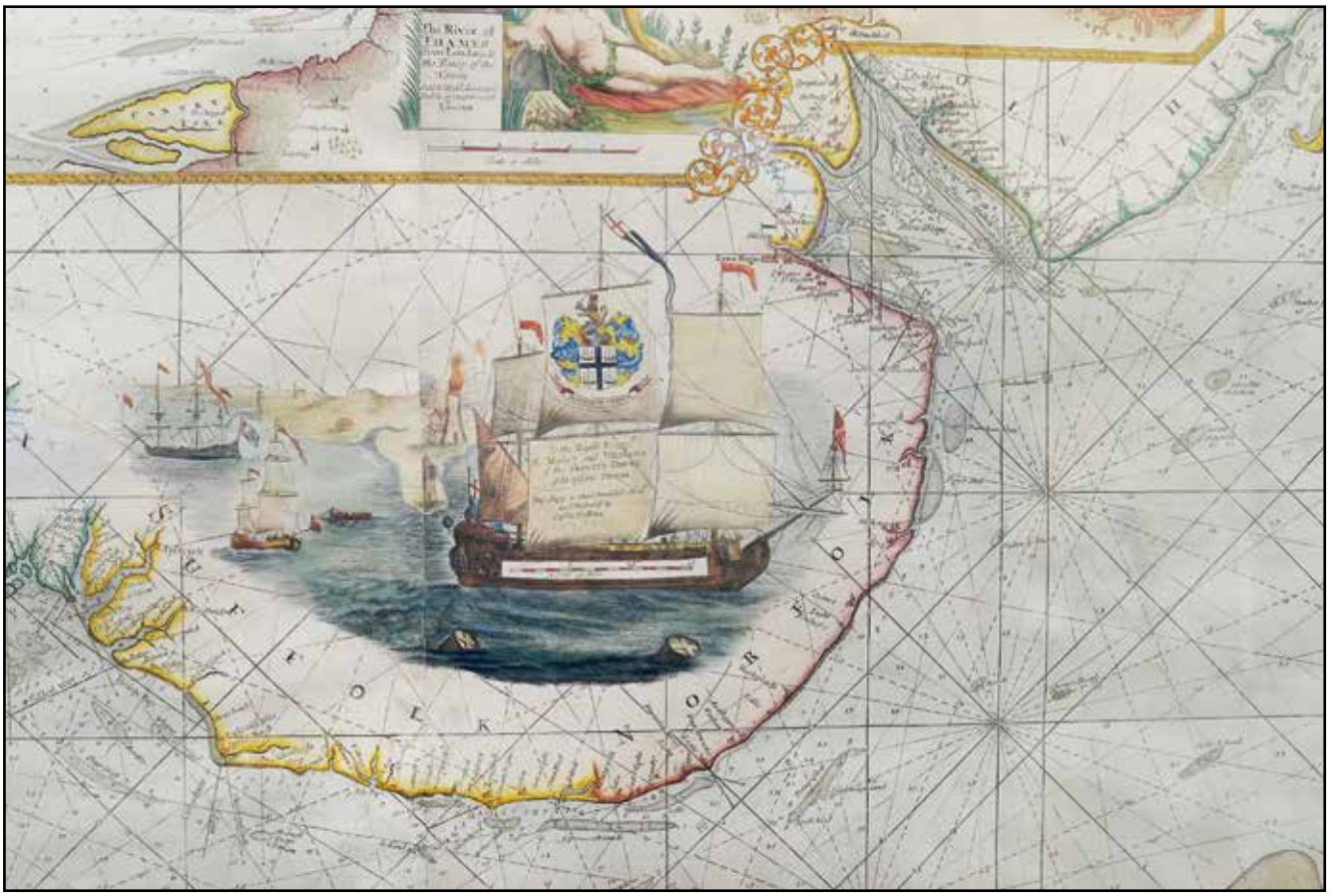


Fig. 5. Extract from chart by Greenvile Collins (1693)

and sank, burnt or towed away the bulk of the English fleet, although by 1672 the losses had been made good sufficiently to repel another Dutch attack at Sole Bay (Southwold).

These actions against the Dutch emphasised what sailors already knew: that the best charts of English coastal waters had been made by the Dutch. Samuel Pepys (1633-1703), as Secretary to the Navy, felt the embarrassment keenly. He recalled that even the 1588 publication of the *Mariners Mirrour* had been followed by only one further edition in 1605 (for which there remains scant evidence). Nevertheless, some charts were being printed. In 1657 Joseph Moxon (1627-1691) published six printed charts of the European coasts in his *Book of Sea-Plats* and republished them in 1665, but with very little change – he had copied them from charts by the Dutchman Pieter Goos (1630-1697). Moxon did little thereafter as he lost his premises in the great fire of 1666.

John Seller (c. 1632-1697) was the first Englishman to establish a business comparable with those then flourishing in the Netherlands, offering a great range of products, with books and instruments as well as charts. His shop was in Wapping, an area frequented by mariners from whom he could learn much about foreign shores. He planned a three-part work containing charts of the English coasts to be called the *English Pilot*, two parts coming out in 1671 and 1672. An incomplete third appeared in 1675, the same year as his *Atlas Maritimus*. He received criticism for using Dutch plates with little modification, but he had little option at the time and the support he was given by the King was a measure of the urgency to become less reliant on Dutch charts. For reasons still unclear, in 1679 Seller passed over the rights in his existing works to William Fisher. His unfinished works he made over to John Thornton, who completed the *English Pilot* which became a well-used atlas throughout the 18th century.

Seller, Thornton and others had long experience of chart drawing, printing and publishing, but Greenvile Collins came from a different direction. It is not known where or when he was born (1643 perhaps) but between 1669 and 1671 he was sailing with Sir John Narborough (another Glaven man) on a South Seas voyage as master on the *Sweepstakes*, and in 1676 he was master of the *Speedwell* on a voyage to investigate a north-east passage to China. Both his captains praised his abilities as a navigator. He sailed on several ships in the Mediterranean thereafter, including Narborough's flagship the *Plymouth*, again as master, and in 1674 he was gazetted captain.

The journal he kept in the Mediterranean impressed those in authority at home and in 1680 the King, supported by Pepys, approved Collins' proposal for a survey of the coasts of Britain and Ireland. In the seven years between 1681 and 1688, using the yachts *Merlin* and *Monmouth*, Collins surveyed the whole coast of Great Britain to produce the first British charts of British waters.[14] Some 120 charts were completed and in 1693 a two-part work, *Great Britain's Coasting Pilot*, was published by Freeman Collins (presumably a relation).[15] The initial printing contained the 48 charts that had then been engraved, together with 27 pages of tide tables and sailing directions. The total cost of the survey came to three times the estimate and although Collins was eventually paid in full it was thought to be too expensive to complete the survey of Ireland, and Collins died in 1694. *The Coasting Pilot* was re-

published in 1723, which would probably not have had Collins' approval as he thought that all masters' journals should be scrutinised by Trinity House and charts updated as necessary. Yet it proved to be popular and a further nineteen editions were published up to 1792, probably because the sailing instructions were at least as useful as the charts.

Even so, some disappointment with the *Coasting Pilot* was evident from the beginning as other chart-makers, sometimes out of professional jealousy, pointed out various inaccuracies. This was probably inevitable bearing in mind the methods that Collins had to use. His appointment required him:'*to make a survey of the sea coasts .... taking all the bearings of the headlands with their exact latitudes, the true plots of all harbours and rivers, roads, bays, creeks, islands, soundings and the setting and flowing of tides ....*', a formidable instruction. He had a chain to make measurements on shore and a quadrant to make estimates of latitude – but no means of assessing longitude. At the mercy of the weather, and with his ship at anchor, he had to estimate the distance to shore and take bearings on prominent landmarks to fix his position. The results enabled him to produce 'plane' charts that were not based on any map projection.

Despite Collins' considerable achievement it was perhaps his misfortune to publish his *Coasting Pilot* in the same year that *Le Neptune François* with charts for western Europe was published in France. Pepys, with his concern about foreign competition, asked John Thornton to compare the *Coasting Pilot* and *Le Neptune François* in their treatment of the coast at the Lizard. He found little difference; the modern assessment is that Collins had misplaced it by ¾ mile but no-one could have been certain of that at the time. A more critical view is that Collins had misplaced by nine miles the rocks on which Cloudesley Shovel had come to grief.[16] The surveyors for *Le Neptune François* had the advantage of being able to use triangulation – the start of a major French advance in cartography (overtaken by British surveyors in the 19th century). *Le Neptune François* was republished immediately and then extended by Pierre Mortier in Amsterdam, but it was too sumptuous a publication to be much used at sea.[17]

Fig. 5 shows an extract from a chart in the *Coasting Pilot* covering the area between Dover and Spurn Head published shortly after van Keulen's *Zee-Fakkel*. Collins' chart (measuring 36 ins x 23 ins) has no latitudes but unlike Waghenaer and van Keulen he does not enlarge the scale of bays and estuaries. His scale is given as about 5 miles to 1 inch (approx 1:300,000).

4 Charting the Norfolk coast

Place-names round the coast

The first half of this article has described the development of marine charts up to c.1700 and given an indication of how the Norfolk coastline has been portrayed on just a few examples. This section considers the coastline in more detail. One method would be to assess the degree of accuracy of the selected charts but with the means available to early chart-makers there was little chance of them achieving a modern standard of geographical accuracy. The alternative is to comment on some individual features, and this begins with place-names onshore.

The purpose of fig. 2 was to show that medieval mapmakers had a remarkably accurate knowledge of the Mediterranean, although this accuracy waned somewhat

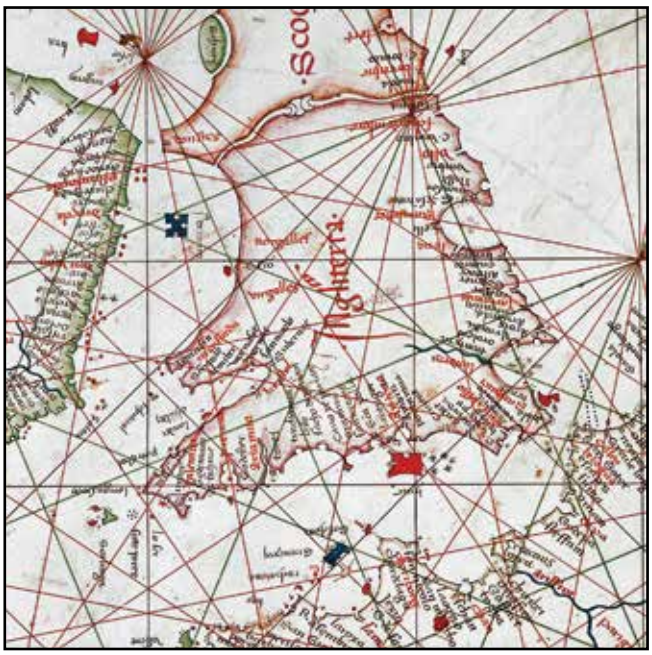


Fig. 6. Extract from chart by Benincasa showing England (1473)

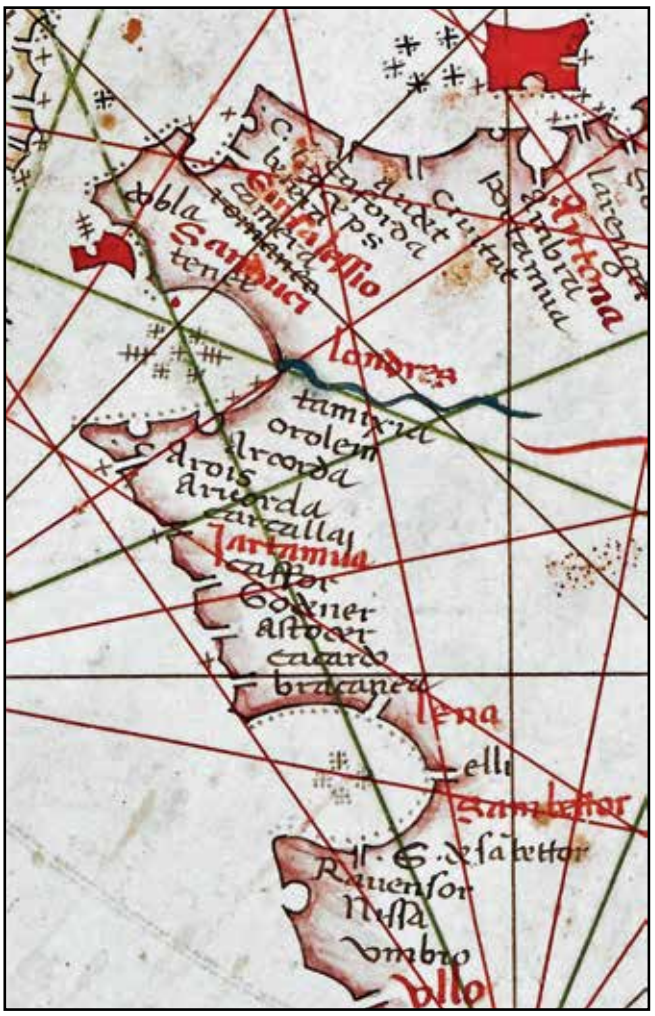


Fig. 7. Extract from chart by Benincasa showing the east coast of England (1473)

north of the English Channel. On that chart, as illustrated, the place-names could not be read but they can on charts showing just the Atlantic coast of Europe.

Fig. 6 is an extract from one such chart drawn in

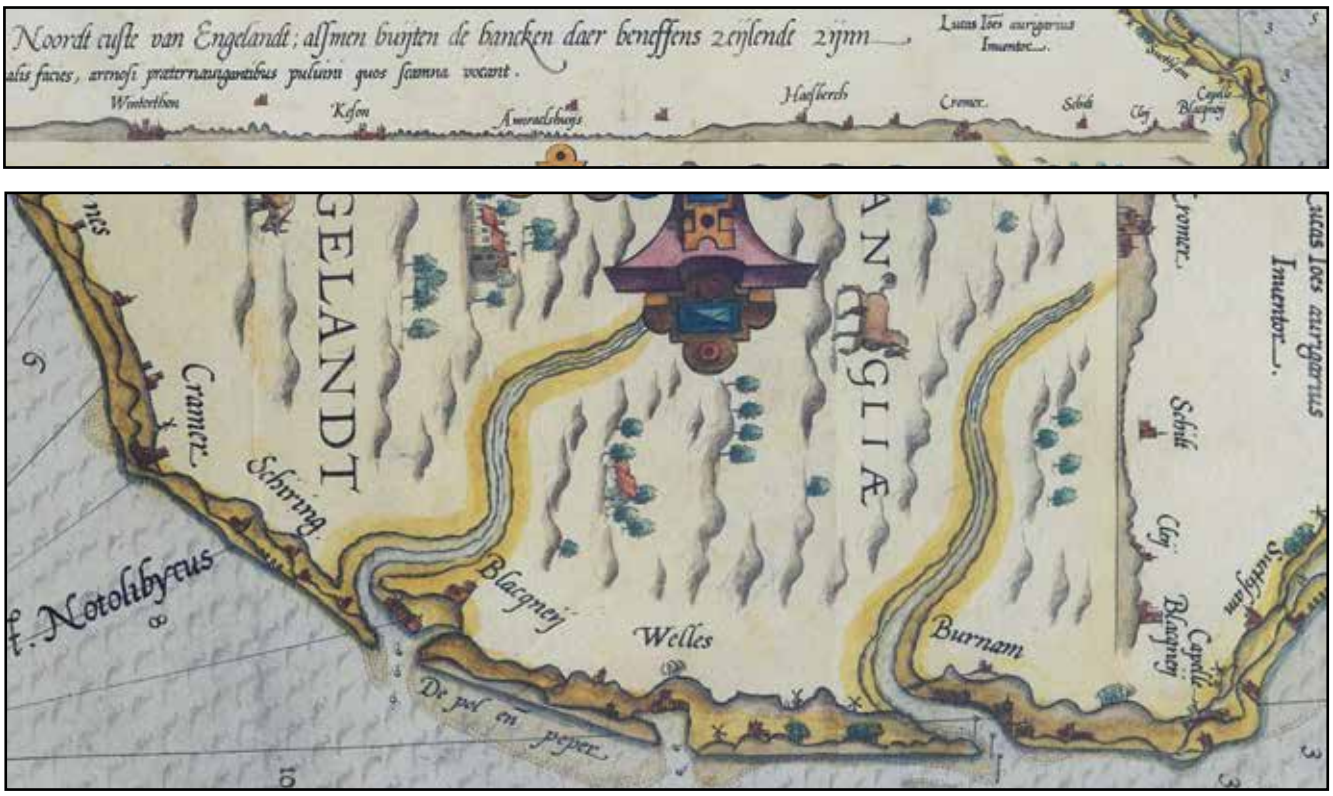


Fig. 8. Coast profiles from Waghenaer's chart (1590)

1473 by Grazioso Benincasa (1400-82).[18] The outline of Britain is not at all accurate but it was drawn that way by successive mapmakers well into the 1500s. Showing Scotland as an island was an invention by Benincasa which was also copied by many others. Place-names are written not in the modern, aligned, fashion but as a seaman would read them as he sailed along the coast. On the original portolan chart north is to the right, as it is on the much later van Keulen and Collins charts, but fig. 6 has been rotated in order to show the shape of England more conveniently. On the east coast the Thames Estuary and the Wash are dominant, as they are in reality.

Fig. 7 shows the east coast of England 'upside down' so that the names of the harbours can be read. Among the names in red, the important places, are London, Yarmouth and Lynn (*Lena*). Further north (or 'down') Hull (*Ullo*) and the Humber appear, but Ravenserodd is somewhat misplaced: it was a port at the end of Spurn Point (the north bank of the Humber) which lost ground to the sea and effectively disappeared in the great storm of 1362. It ought not to be on the chart at all, although Ravenspurn was built to replace it and survived long enough to get a mention in Shakespeare's *Richard II* before it too was lost to the sea.

Between Yarmouth and Lynn five harbours are named – by an Italian using older material inherited from Italian and Catalan mapmakers, so the names are not easy to interpret. 'Casser' and 'Brancanea' indicate Caister and Brancaster – but what of Codener, Artocer and Cacardo? Other charts have other spellings, such as Gordaner, Stacer and Cadoco, but variations are more likely to be copying errors than corrections. Perhaps the middle name, geographically, should represent Blakeney, but the author has found no corroboration.

Fig. 8 shows why Waghenaer's charts made such an impact on seamen used only to small portolan charts of the kind shown in fig. 6. A simple profile of the whole coastline runs along the top of the chart, and much more detail is shown along the actual coast where Waghenaer shows both the foreground and the background of the view from seaward. The place-names are readable, despite the aberrant spelling. On the upper profile the whole of Blakeney church is shown together with the upper portion of Cley church, as they would have been seen from seaward. The chart itself presents almost a bird's eye (or crow's nest) view of the coast: Blakeney Point protects the Haven, Blakeney village nestles below the hill topped by its prominent church, and is served by a creek, while the Glaven flows past Cley church. The harbours at Wells and Burnham are prominent, with the settlements shown at sea-level, but it is not easy to identify the unnamed village symbols. Like the River Glaven, the Burn was once tidal; Burnham Market was an important early settlement with a Carmelite Friary close by, and with Burnham Overy ('over-ea' meaning 'over the water') lying on the opposite side of the river valley. Brancaster is not named. The coastal profile at the top of the chart does not extend west of Blakeney, perhaps because it is easier to show features on a cliffed coastline than one with extensive salt marsh.

Van Keulen's chart shown in fig. 9 makes an interesting comparison with Waghenaer's chart drawn a century earlier, and in many respects it is not an improvement. Harbours have been enlarged further and the coast in between has shrunk, and there is a less successful attempt to show foreground and background in the manner of Waghenaer's chart, although there is more information about sandbanks out at sea. Geographical inaccuracy precludes its use as evidence for the development of Blakeney Point or Scolt Head Island, although it is a reminder that Scolt may have

Fig. 9. Van Keulen (1688-1704)

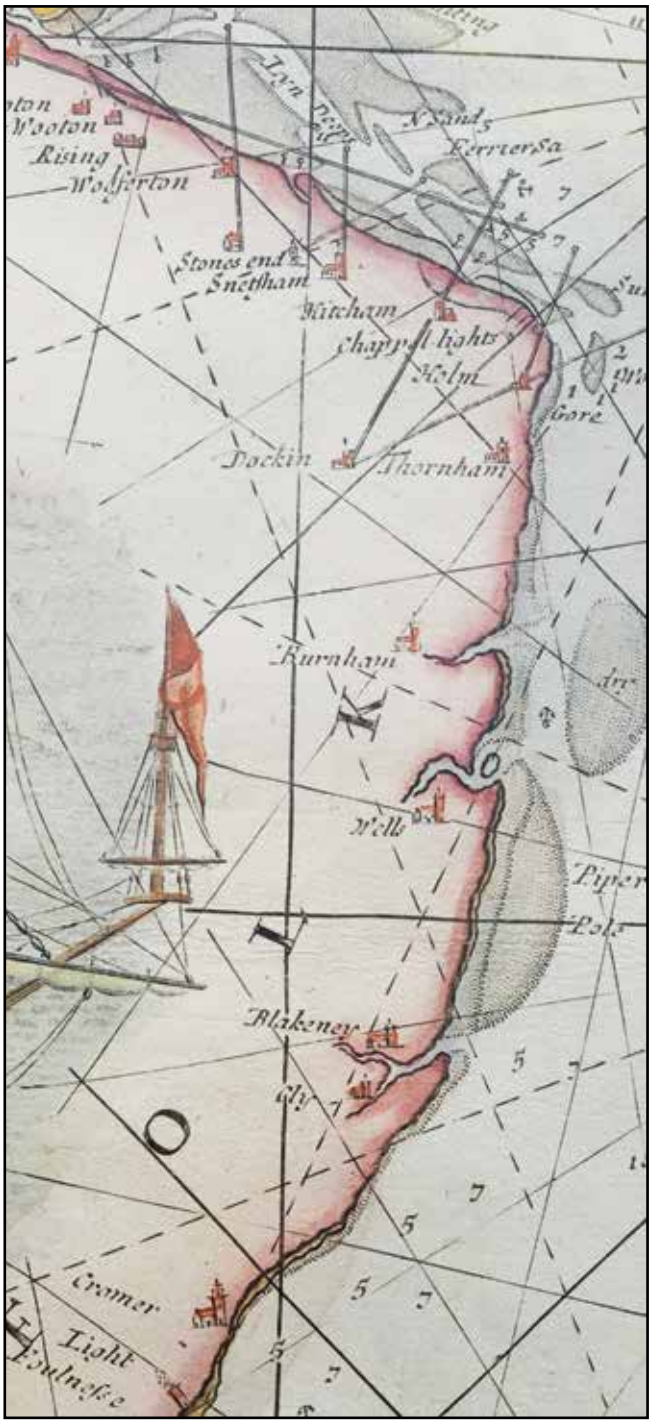


Fig. 10. Collins (1693)

been a spit in its early days. There are some extra village names but Sheringham is missing: it would have been a small settlement at the time, an offshoot of what is now Upper Sheringham.

Fig. 10 shows the same area on the chart resulting from the survey work by Greenvile Collins which was not available to van Keulen. The difference is striking and demonstrates that, despite criticism made at the time and since, the Collins charts were not only an improvement on existing ones but freed British seamen from their long dependence on the Dutch.

The name Burnham may refer to Burnham Market as Burnham Overy Staithe only became prominent when the Burn was no longer navigable. Thornham is shown but not Brancaster, a selection that probably tallies with the trade of these villages. In the early 1500s Burnham (harbour) and Thornham both took part in the coal trade from Newcastle in which Brancaster hardly featured at all. At first sight it might seem surprising that the chart gives bearings for Docking church when seen from seaward of Hunstanton cliffs, but as the top of the church tower is arguably the highest point in Norfolk and the ship was some three miles from shore the bearings could have been taken at deck level.

Anyone looking at charts of the Norfolk coastline from this period might be intrigued to see the name **'Mockbeggers Hall'** between Happisburgh and Winterton. It is present on both the Collins and van Keulen charts, just north of Waxham village (figs 4 and 5). The name Mockbeggers Hall has an interesting history. There were others around the country, including one

at Claydon, near Ipswich. The term arose in the later 1500s to denote a house that had the appearance of wealth but was either unoccupied or else inhabited by someone unable, or unwilling, to give help to the poor. It was a time when country landowners were moving to the towns in sufficient numbers to give rise to a well-known ballad with many verses, each ending with the line *'while mock begger hall stands empty'*.

Why a Mockbeggers Hall at Waxham? Waghenaer provides a key to the puzzle by calling it the 'Admirals House'. Waxham Hall was the seat of the Woodhouse family which reached their greatest prominence in the later 1500s, when Sir William had a distinguished military career and his son Sir Henry, who married a daughter of Sir Nicholas Bacon, was appointed Vice-Admiral for Norfolk and Suffolk. He did run into financial difficulties, relieved in part by the sale of his property in Ingham to Nathaniel Bacon of Stiffkey. By local tradition the Hall, now very close to the sea, was once several miles from it, and much of this land was flooded during a catastrophic storm in 1607 when the area was known as *'Little Waxham or Waxham Mockbegger'*.[19] This appellation might well have continued in local use into the 1700s when the Hall was bought by the notorious Brograve family. The Mockbegger name survives on a 1730 revision of the chart by van Keulen shown in fig. 4 even though it appears as the Admiral's House on de Wit's chart of 1675 (fig. 10).

Passage round the coast

Britain became an island (again) only in about 6,000 BC as Ice Age glaciers melted and the North Sea rose. The water covered 'Doggerland' and began to flow into the low-lying land of what is now East Anglia, flooding river valleys and turning the high ground of glacial deposits into islands and promontories. Since then erosion by the sea has created a much more regular, rounded coastline from Weybourne round to Southwold and beyond. In the process promontories have been worn away, mostly in prehistoric times but some more recently, including one in the vicinity of Cromer. The lost village of Shipden is now nearly half a mile offshore, and close by was a high headland with cliffs on all sides known by a name evocative to seamen: **Foulness.**

In 1549 Foulness was made a beacon site in a chain extending from Norwich out to Weybourne, but a permanent light would have been a boon for collier traffic between the Tyne and the Thames. An Act of 1566 made Trinity House of Deptford responsible for the provision of lights wherever they thought fit, but not one was provided during the 1500s, the first being at Caister in 1600, followed by Lowestoft in 1609. Eventually John Clayton and George Blake applied for permission to build private lighthouses at Flamborough, Foulness, and Corton (in Suffolk), and in 1669 they received a 60 year permission despite strong objections. In origin lights were essentially business ventures rather than safeguards for ships and sailors, a view maintained by Trinity House. The Brethren at Newcastle and Hull said they would damage the coal trade because merchants' profits would be reduced and those at Dover said they would be dangerous because ships might be lost by mistaking the lights.[20]

Foulness was considered to be part of Cromer but was actually in Overstrand parish; Clayton paid the Lord of the Manor there for a 60 year lease and the light was up by 1674. The Corton light came into use in 1675 but Trinity House caused considerable problems by discouraging shipmasters from paying the dues. This and legal objections persuaded Clayton to give up his grant for Flamborough and Foulness and neither light was ever lit. Both Collins and van Keulen show the Foulness light on their charts but in his sailing instructions Collins notes: *'Foulness .... is a high land on which standeth a lighthouse but no fire kept in as yet'*.

Clayton's Flamborough light still stands but his Foulness light disappeared in a cliff fall about 1700, and the remains of the headland were washed away during the 1800s. Edward Bowell had erected a replacement light there in 1718, having pacified Trinity House by agreeing to pay them a rent and making the light over to them at the end of the lease. Not until 1837 did all private lights pass into the ownership of Trinity House.

Daniels Defoe's journeys around Britain in the early 1700s produced a long comment about the heavy sea-traffic between the North-East and London, and the dangers encountered in rounding north-east Norfolk.[21] **Winterton Ness** (shown on fig. 5) was the most feared point on that journey and he records 200 colliers coming to grief in a single night in or about 1692. Of Cromer he says that, apart from good lobsters, it too is famous only for being the terror of sailors. At Winterton there was also a long history of disagreement about the provision of lights, but at least they were provided, one privately and one by Trinity House, each party collecting the relevant dues. In 1687 Sir Edward Turnour replaced his first lighthouse and Trinity House dragged theirs to a new position in relation to it. Meanwhile local fisherman were maintaining two lights on the Ness itself, the outer one being washed away in 1714. Greenvile Collins and van Keulen both show 'lights' either side of Winterton village. The Ness is no longer prominent as it was centuries ago, the present sand dunes lying within the curve of the coastline.

Happisburgh Ness is a prominent name on Waghenaer's chart and the Ness itself features prominently on van Keulen's chart, as does Foulness. On *Le Neptune Francois* (1693) both Foulness and Winterton Ness are also very prominent. In contrast, the coastline shown by Collins is almost as smoothly rounded as on today's charts. The reason is very probably due to differences in their origin: Collins was able to survey the coast whereas van Keulen was dependent on earlier Dutch charts, including Waghenaer's, which made a point of exaggerating features of interest or potential danger to seamen. On modern charts Foulness is marked and has shallow water out to half a mile off shore, Winterton Ness similarly for a quarter of a mile. Happisburgh, on the other hand, has no 'ness' today, except for relatively small irregularities created by rapid erosion, and there is deep water close inshore.

The portrayal of **sandbanks** on charts of the 16th and 17th centuries is sometimes rudimentary although the largest are usually shown. If their location seems to differ from those known today it may be due to inaccuracy or else to subsequent changes in their size and shape. It is also a matter of scale; Collins shows more detail on his larger-scale charts of harbours than he does on those of a smaller scale covering a larger area. The names of individual sandbanks often have a long history. All three charts selected for discussion show the Cockle off Caister, the Sunk off Hunstanton, and Burnham Flats, all names on current charts.

One name which also had a long currency was the

Pole and Piper, the sand flats between Blakeney and Wells, whose western end was more recently known as Bob Hall's Sand. The name featured on many charts and had many variants, including '*Pol en Peper*' (Waghenaer), *'Piper and Poll'* (van Keulen), and *'Piper and Pole'* (Collins). If anyone has worked out the origin or meaning of this name, the author has not seen it. Dictionaries suggest some tenuous possibilities for pol(e), including a witch flounder (from pole-dab, where 'pole' is from Norman-French), and a tussock of grass (Dutch). Wright's dialect dictionary has 'poyll' for a small rounded bight, and 'pepple' for coming to the surface, as fish to a fly. Interesting, but not convincing.

Another possible, but unlikely, origin might be found in the Gironde, the estuary of the Garonne in Gascony. This river provided access to areas around Bordeaux, the source of wine brought to England in substantial quantities during the medieval period. Although Blakeney and Wells were mainly fishing ports, their merchants occasionally sent ships down with the wine fleet. Actual references are few, one such being a list of ships arrested in 1326-27 on the way to Gascony which included the *Nicholas* of Blakeney, 120 tons. A notice issued in 1301 to all ports, including Blakeney, required them to travel in fleets when sailing to Gascony to fetch wine.

Mid-way in the mouth of the Gironde was a lighthouse called the Tower of Cordouan, one of the best-known such structures of its day, built by order of the Black Prince in c.1360. It was known to English seamen as the Pole Head. On the northern shore of the river mouth was a sandbank called the Horseshoe (now two banks called La Mauvaise and Le Cuivre). These seamarks appear in William Ebesham's text of 1486: *'.... gi your cours with the Pelehead south est and by south and ye be in xii fadome dede, and then shall lede you without the Poulis. Fro the Pelis ye must go north est till ye be above the Piper, than go est and by north for the cause of the Horshoo ....'* and so on into the Garonne.[6] If the Piper still exists it has another name today, but it was clearly a sandbank associated with the Pole. If these names are relevant, how come they were transferred to sand-flats by the mouth of the Glaven?

In Tudor times Blakeney Point was shorter than at present. Charts prepared in the 16th and 17th centuries (described below) appear to show that the sandhills which now form the Hood and the Long Hills successively mark the end of the Point as it grew westwards from its beginnings perhaps a thousand years ago. The harbour entrance has moved with it but without any fundamental change in shape: the names change but there are still extensive sand flats to the west of the channel which carries the last of the ebb tide round the Point and northward to the sea.

The flood tide at Blakeney flows initially from the east, so there was a danger of incoming ships being carried on to the Pole and Piper. Waghenaer's directions vary marginally according to the language. The English version (in the *Mariners Mirrour*) reads: *'Blakenie is a bard [ie 'hard'] haven, you must enter along the shoare, and in the entrie lie buyes'*. The French (translated) version is: 'Blakeney is a tidal harbour entered along the shore and there are barrels [buoys] in the mouth'. The Latin text seems to mean: 'Blakeney is a harbour with strong tides having an entrance along the shore with mudbanks in the mouth'. There is no mention of a 'pole' but one could have been erected on a central sandbank at a time when the Glaven had two entrances, as it has had on occasions since. One hundred years later van Keulen marked beacons on the outer edge of the Piper and Poll, so perhaps they had a prominent predecessor. Should we imagine that local sailors were so proud of their Haven that visiting seamen mocked their pretensions by awarding them the Gironde's 'pole and piper'?

Fig. 11. Extract from chart by Frederick de Wit (1675)

William Ebesham has another local reference of interest: *'.... And yif ye go fro the Spone to the Shelde and that the wynd be at northwest your cours is southest till ye be pass'd Welbank ....'* The Spone is the modern Spurn Head and Welbank is a large sandbank some distance north-east of Cromer. but where is the Shelde? Another question arises from the English version of Waghenaer's chart of the Wash and the Humber. Where other charts have 'Pole and Piper', the *Mariners Mirrour* labels that sand as '*Dagger and* ....' This looks like a mistake - in keeping with locating Holkham between Blakeney and Wells. A further reference appears in the Close Rolls for 1326 (No. 613) which refers to named ports between Blakeney and Snettisham, saying that their ships shall remain on that coast *'in the parts of Sheld and St Edmundesness'*, St Edmunds being the chapel and its light at Old Hunstanton. Waghenaer's own chart gives no clue to the missing word and has no mention of 'Dagger', but a look back at fig. 8 shows the word *'Schilt'* in the top profile in the approximate position of Weybourne. Perhaps Upper Sheringham was intended but *'Schiring'* is the spelling on the main chart and it seems more likely that Waghenaer is denoting the 'shelde'. A printed chart of 1675 by Frederick de Wit (fig. 11) has *'Dager and Shild'* written not on the Pole and Piper sandbank but on the coast between Sheringham and Cromer.

The location of the Dagger and Shield is plotted more explicitly on one of the coastal profiles included in the *Coasting Pilot* published by Collins in 1693. The words appear above two unnamed settlements which to judge from their position between Cromer and Cley ought to be Sheringham and Weybourne (fig. 12). The hump to the west of the Shield (to the right on fig. 12) would then be Muckleburgh. Linking the Shield to Weybourne would then tally, if fortuitously, with Waghenaer's chart.

Bearing in mind the long tradition of cartographers borrowing from their predecessors it is no surprise to find this same illustration appearing in a Dutch work. Fig. 13 is a profile from Johannes van Keulen's atlas re-published by his son Gerard in 1730.[22] The likeness is unmistakable.

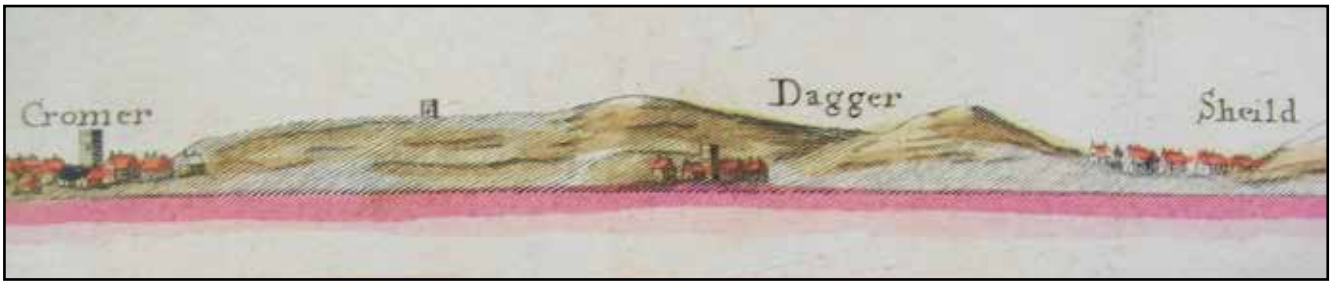


Fig. 12. Part of the Foulness to Blakeney profile by Greenvile Collins (1693)

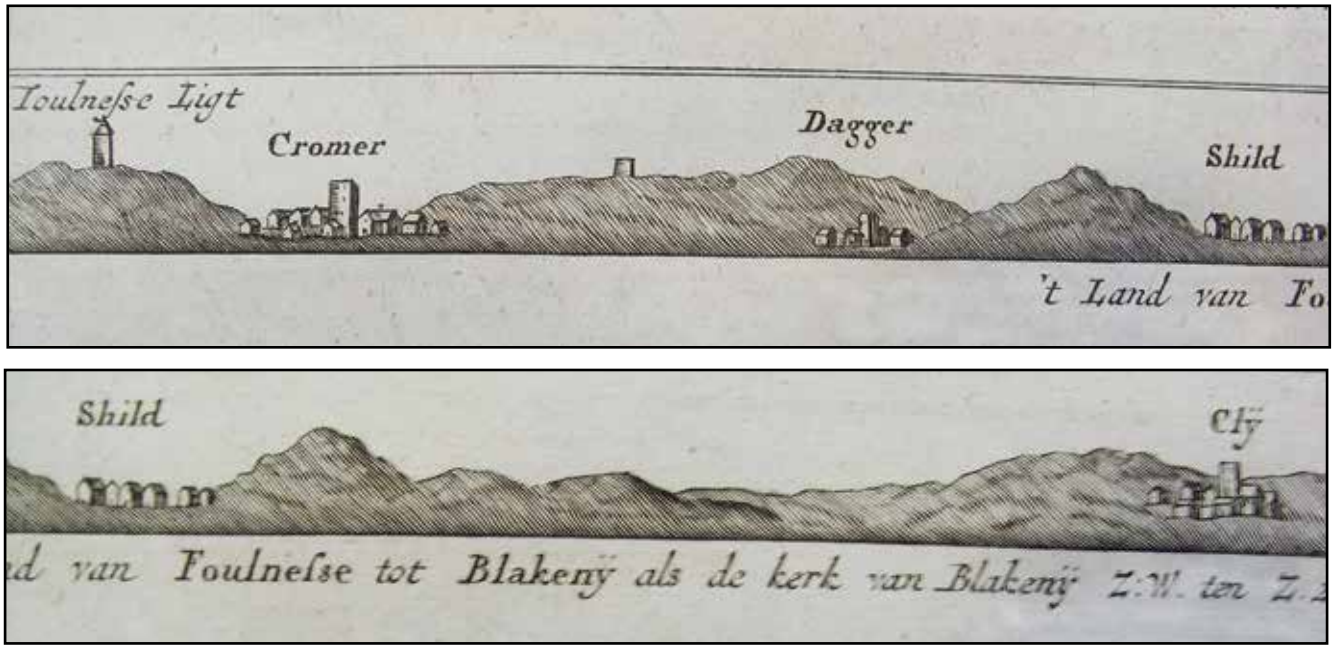


Fig. 13. Part of the Foulness to Blakeney profile by Gerard van Keulen (1730)

Unfortunately, no matter how many charts bear the names, it is still not apparent what the terms Dagger and Shield refer to. One suggestion is that 'shield' derives from the old word 'sheld' meaning 'piebald' (as in shelduck), hence could describe cliffs of variegated colours, although this would apply more obviously to Hunstanton than to Weybourne or Sheringham.

While many potentially dangerous headlands came to be marked by lights, and sandbanks could be avoided by knowledge of the ship's approximate position and the use of the lead, harbours were usually supplied with **buoys and beacons**. Waghenaer's chart for the Thames estuary has two prominent beacons marked ¾ of a mile out to sea off the Essex coast: one labelled the *'Whittaker Beaken'*. Today three beacons and a buoy carry this name and help to mark a passage into the rivers Colne and Blackwater, and also the Crouch. Beacons shown at the entrance to Burnham harbour and the channel to Lynn feature in Waghenaer's sailing instructions, as well as buoys at Blakeney and Wells. For north Norfolk, van Keulen follows Waghenaer's depiction of beacons and buoys, with the addition of the beacons on the Piper and Poll; Collins shows none here on his chart but does refer to them in his instructions.

5 Into Blakeney Haven

County Maps

The principal function of the early county maps was to show all towns and villages in their correct relationship to each other. The main rivers were shown from the outset but it would be many years before roads appeared. The map of Norfolk completed in 1574 by Christopher Saxton (c.1540 – c.1610) was the first printed map of its kind in the country, and was included with 33 other county maps in his *Atlas of the Counties of England and Wales* published in 1579, just five years before Waghenaer's *Spieghel der Zeevaerdt.* How did Saxton achieve so much in the five or six years that it took him? Some have suggested that he used a form of triangulation, perhaps using the national beacon system, but he must also have made good use of information already available from the work of other surveyors.[23] The proofs of each map were sent straight to Lord Burghley, then Queen Elizabeth's Lord High Treasurer, who annotated them with comments about defence measures. It has been suggested that Saxton's atlas was intended mainly for national defence, with parks shown as places for mustering horses and coastlines mapped as accurately as possible.

Saxton's maps were copied by many others throughout the 1600s. Among the most notable were John Norden, William Smith and John Speed, cartographers who improved on Saxton's maps. Those who followed were mostly printers who made little attempt to update the work of their predecessors. John Speed, whose atlas published in 1611 contained 67 maps, was the first to cover the whole of the British Isles. John Norden was the first to add important roads on his maps of the southern counties, but the main roads

Fig. 14. Extract from (reproduction) map of Norfolk by Saxton (1574)

in Norfolk were not shown on any county map until Morden's in 1695.

The Dutch were prominent in producing not only marine charts but also English county atlases. Both Johannes Janssonius (1636 and 1646) and Joan Blaeu (1645) issued county maps based on Speed, and Blaeu's plate of Norfolk, having survived a major fire, was used again in David Mortier's *Atlas Anglois* (1714). John Seller, who had initiated *The English Pilot*, proposed a county atlas but the project was abandoned before a map of Norfolk had been prepared. Not until 1730 were maps published based on a new national survey by a professional surveyor, James Corbridge, whose work was immediately pirated by Goddard and Chase (1731). Even so, Saxton's plate for the Norfolk map had an exceptionally long life, with amendments being made by various owners over the course of some 200 years.[24]

The most striking feature of fig. 14 is the irregularity of the coastline portrayed by Saxton, which was to be copied by almost all Norfolk maps during the 1600s. Winterton Ness is particularly prominent, and is named; other promontories shown appear to be much exaggerated, if not imaginary, but Foulness is not obviously among them. The name 'Weybourne Hope', long known for having deep water close in ('hope' meaning a small bay), seems to be the only faint indication that Saxton might have had coastal defence in mind while preparing the Norfolk map. No lights or beacons appear on it, although perhaps this was a defence measure. On Saxton's map, and therefore on other similar maps of the county for more than 150 years, the river Glaven is shown running straight out to sea, thereby making Blakeney Point an island. Whilst it is possible for a storm to breach the shingle ridge any new channel would have filled very quickly.

Robert Morden's map of 1695 is still based on Saxton and Speed but has a number of innovations, including main roads, and is only the second (after small maps by John Bill in 1626) to show latitude and longitude, with longitudes calculated from London. The map carries some navigational information in the form of a beacon at Bacton, and lights at Caister, Winterton and near Eccles. The coast has a smoothed outline, foreshadowing Corbridge's later survey, but with shallows extending offshore at Foulness and to a lesser extent at Winterton Ness. The Glaven still flows straight out to sea but with apparently enclosed marsh either side.

Five years later Morden published a small map of Norfolk only a quarter of the size of the 1695 map and which might therefore appear to be a reduced version of it. Yet this cannot be the case as the coastline is the same shape as on those maps derived from Saxton with Winterton Ness prominent. The map appears to have been engraved before the larger one but not published till later.[25]

The new survey by Corbridge, as published by Goddard and Chase (fig. 15), shows a very different coastline from Saxton's: much deeper north to south, and as smoothly rounded as on the modern map; Winterton Ness is still apparent but has shrunk considerably. The other principal difference is in the treatment of Blakeney Haven where Corbridge shows the Glaven turning to the west, as it does now, and running some distance before rounding the Point.

Collins and van Keulen

As well as Saxton's printed maps, many manuscript maps were prepared during the 1500s. These included plans and sketches of ports and harbours, often related to the government's fear of invasion, especially during Henry VIII's reign. A map of 1539 of the coast from the Orwell up to Yarmouth shows a beacon on Orford Castle which would have been part of the coastal beacon warning system.[26] Precautions were needed again in the years leading up to the Spanish Armada in 1588. In 1583 Lord Burghley, then Elizabeth's Lord High Treasurer, formed a committee to conduct extensive surveys of the coasts, and in 1585 a second committee began to draw up maps of potential landing places. In 1587 a further survey was initiated to update all the information and draw up plans of specific danger points. Sir John Norreys was in charge of much of this work assisted by two other commissioners and three chief cartographers, one of whom was Edmund Yorke.[27] In practice, Yorke was more than a 'cartographer': he had designed fortifications and would be responsible for building those at Waterford in 1590.

One of the 'Armada' maps was for the area between

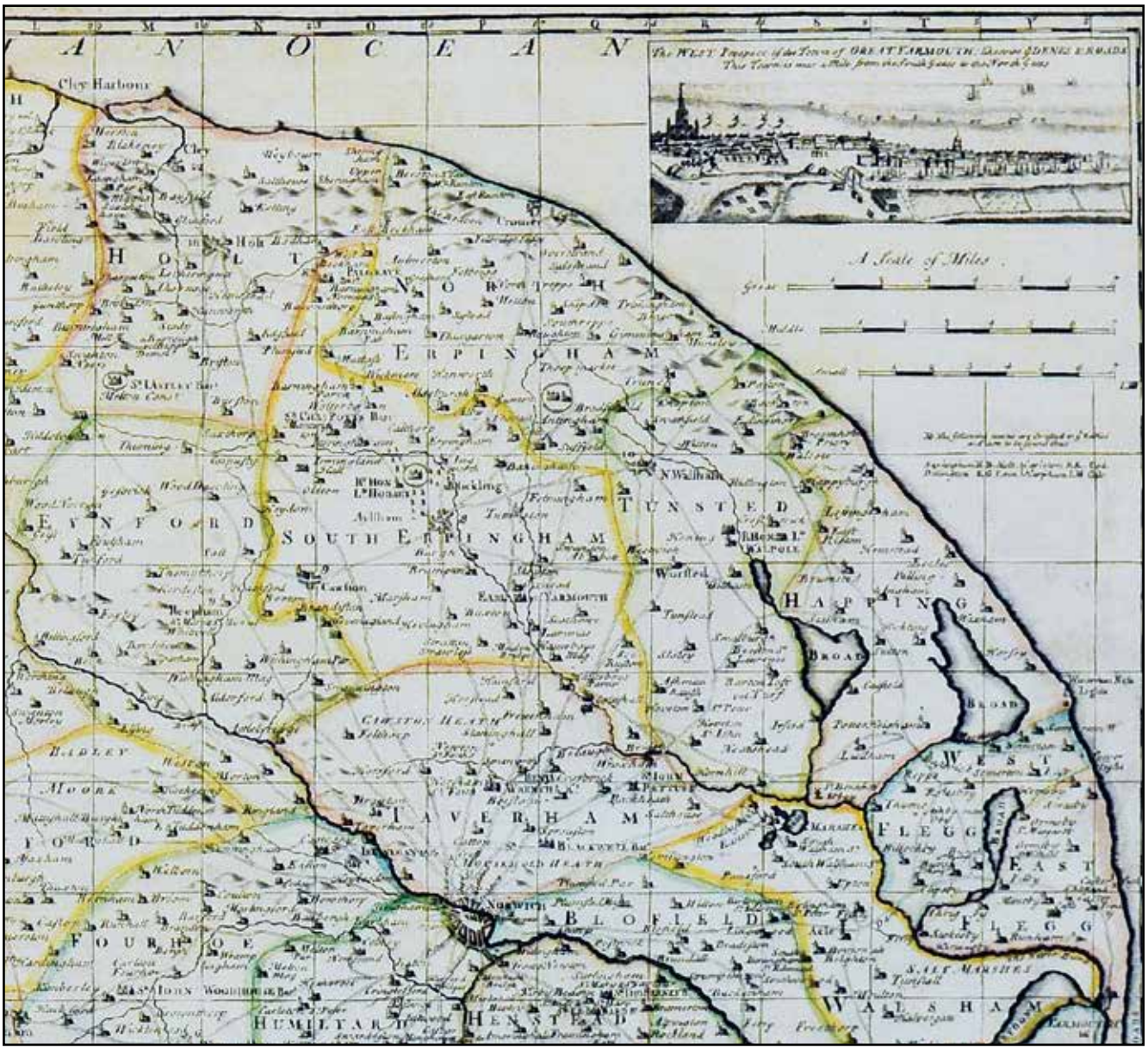


Fig. 15. Extract from map of Norfolk by Goddard and Chase (1731)

Weybourne and Salthouse. It is dated 1st May 1588 and carries the initials EY, almost certainly for Edmund Yorke. A note affirms that the map was 'made in haste' and is not to scale. It shows an elaborate rampart extending over two miles along the inner edge of the salt marsh (where the coast road now runs) shaped according to the military conventions of the day. The plan also features two forts: one at Weybourne and one apparently on Cley Eye ('eyes' being the mounds of sand and gravel surrounded by marshland on this part of the Norfolk coastline). The plan is associated with a document, dated one day earlier, which refers to the need for *'a sconce at Waborne hoop'* and another *'at Blakkey to garde ye entry at Claye haven'*, a 'sconce' being a small fort.

Published photographic reproductions of the plan appear to show the Cley fort on the seaward side of the Eye but a site on the western side, back from the beach, would be needed to guard 'Cley haven'. There are today some low earthworks which, although on the marsh beside the Eye, could be interpreted as the remains of such a fort – which would probably have been of earthen construction. The name written on the plan appears to be *'Black Joy forte'* with two more words (*'star sey'*?) written faintly above which a sight of the original might clarify. There is no apparent reason for the name 'Joy' and some have supposed it might be a mistake for 'Eye'.[28] If so, the mistake could lie in the modern reading of the name because in earlier times 'I' and 'J' were the same letter. An alternative transcription would therefore be 'Ioy', perhaps a representation of the word 'Eye' (especially if said with a Norfolk accent).

On a 1704 field map of Weybourne is written the name *'Sconce and no man's friend furlong'*. One small part of this furlong was evidently missing as a result of cliff erosion. It does not follow that this was the actual site of a sconce but perhaps the name is more likely to have survived if the fort once existed than if it was just the memory of one proposed in 1587.[29]

While such maps are of local interest they are not nautical charts, and there would be none until Greenvile Collins had completed his survey of the British coast. The charts in his *Coasting Pilot* published in 1693 depict not only coastlines but also individual harbours, and Blakeney Haven is included. It is the only

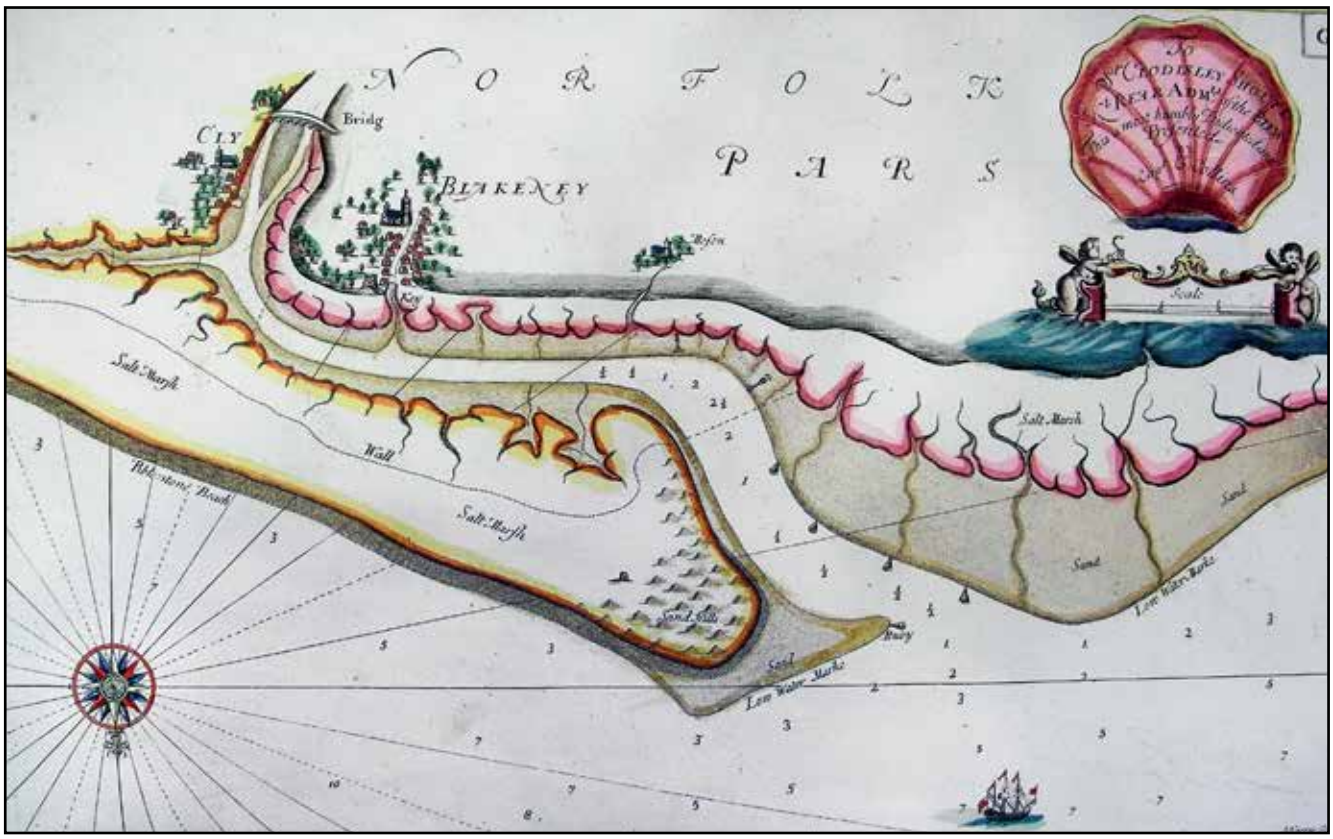


Fig. 16. Blakeney and Cley by Greenvile Collins (1693)

detailed chart for north Norfolk and the sailing instructions explain why: Wells, Burnham, Kings's Lynn and Boston were excluded because Collins had not surveyed them, having been *'hindered by this present war'* (against the Dutch).

The war did not hinder his preparation of sailing instructions which needed to be read in conjunction with the charts. For Blakeney his text is as follows:

To sayl into Blackney
'From Cromer unto Blackney it is two or three leagues. At Blackney standeth a high steeple which you may see alongst far over the land; when it cometh to the little steeple, then you have the first buoy of the channel which lieth at the south end of the Pole which is a sand at the west side of the channel of Blackney, go from the first buoy to the other and so alongst by them until you come within the Haven; this is a tyde-haven and is dry at low-water'.

Blakeney and Cly
'Blakeney & Cly are two small towns which lye into a small creek ten miles from Foulness. Blakeney is a great church and a high square steeple, bring the church south-east and run in so into five or six fathom water till you see the buoys, there is but half a fathom of water at low water but at high water thirteen or fourteen foot: you sail in between two buoys and then keep the rest of the buoys on the starboard side going in till you come up with the beacons and there you may anchor where you will have two, and two and a half fathom at low water; if you run higher up you lye aground at low water. It is high water here at full and change east south-east'.

The Blakeney Haven chart (fig. 16) measures 17 x 10½ ins and in the shell cartouche is a dedication by Collins to *'Sir Clodlsley Shovel, Kt, Rear Admirall of the Blew'*.[30] Collins would have chosen him because of his known association with the Haven. Cloudesley Shovell was born in Cockthorpe in 1650 and went to sea as a cabin boy under Vice Admiral Sir Christopher Myngs and later served under Rear Admiral Sir John Narborough, both of them with strong local connections. Shovel himself was appointed Rear Admiral in 1690, promoted to Vice Admiral in 1694 and then made Admiral of the Fleet in 1705.

The depths marked on the chart show deep water (three fathoms or 18 ft) close in, shallowing on approach to the bar where there is only 3 ft at low tide. Buoys are marked either side of the entrance, with three more to starboard (on the right) going in, although the sailing directions suggest that more were present. Inside the harbour the water deepens to 12-15 ft in an area that has long been called the Pit although there is no longer any depth of water deserving the name.

This area on the chart is marked by two beacons with fires alight on the tops. How were these fires maintained and who looked after them?

In 1583 Nathaniel Bacon of Stiffkey made an agreement with Edward Thompson for *'his kepinge of the haven with beakons'* allowing him poles for the purpose as well as his accommodation, and Thompson was also entitled to take 2s from every ship.[31] Later, in 1630, the Port Court of the manor of Cley appointed Henry Wilson to be 'Supervisor of the Port and Haven Man', so presumably he was responsible for maintaining the buoys and beacons.[32] In 1667, though, the local merchants petitioned the Lord High Admiral to pay the salary of a Haven Man as trade was in decline after the heyday of the 1500s. Collins' chart suggests that the funds were found.[33]

The chart shows the main channel to be the estuary

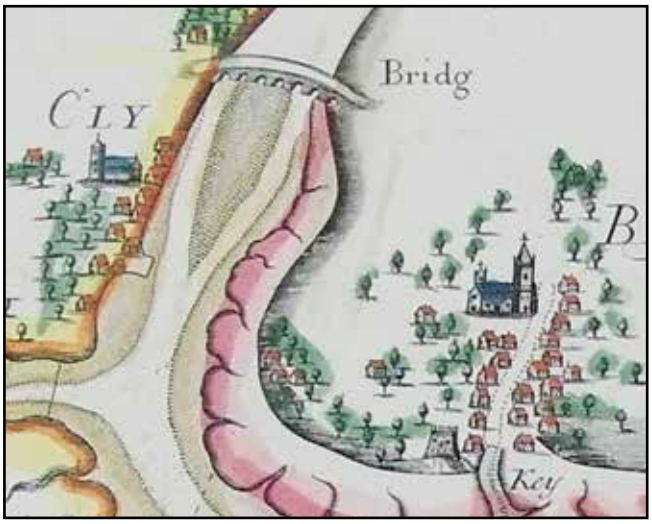


Fig. 17. Extract from chart by Collins showing churches (1693)

of the River Glaven, flowing past Cley, with a subsidiary channel through the marshes towards Salthouse and Kelling. A map of 1649 made by John Hunt shows this channel whose southernmost bends can still be discerned, the rest of it having been overwhelmed by the inward movement of the shingle beach.[34] The creeks serving Blakeney and Morston (*'Moson'*) are of little interest to Collins whose concern for navigation stops at the Pit, but he does name a 'key' at Blakeney and draws one at Cley.

Coastal charts normally show features ashore which can aid navigation, their locations being more important than architectural accuracy (fig. 17). Cley church would not have been a prominent one so perhaps it was of little concern that the tower is placed at the east end of the church instead of the west. Blakeney church has its characteristic second tower but the spirelet on the main tower may be just a means of elevating the cross. Blakeney Guildhall is shown as a castellated building, which it may have resembled if the top floor had already been lost, but the former friary is represented just by a house like all others in the village. The two channels of the Glaven are shown issuing from a bridge or causeway that spans the flood plain of the river. In reality there was a bridge over each stream: the stone bridge on the Wiveton side which still exists, and a wooden bridge on the Cley side whose brick bases are now buried out of sight.

The chart shows that the bar, where river finally meets the sea, was then where the inward end of the spit curved round towards the land. If accurately drawn, this contrasts with its position today when the channel rounds the end of the spit and extends some distance seawards between sandbanks before reaching the bar. What has not changed is the shallow depth of water on the bar. The chart shows sandhills only at the end of the Point; their remnants may form the present Hood, or else the Long Hills – it is difficult to be precise about the chronological evolution of the Point. What is certain is that the Point was then much shorter and was further out to sea: storms have rolled the shingle landwards during the intervening centuries.

The surprising feature on the chart is the 'wall' extending all along the Point and *through* the marsh: 'salt marsh' is written on its seaward side and there must have been salt marsh on the estuary side as well. It is unlikely to have been a pure invention so may have existed in some form, in which case it would have had some function, either then or previously. It is worth noting that until recently the beacon now on 'Shingle Knoll' south of the sandhills forming the Hood was known as the 'Wallsback' and marked the end of a shingle ridge curving round from the Hood which has now almost disappeared into the marsh. Perhaps it is an echo of a wall once envisaged as part of the Armada defences.

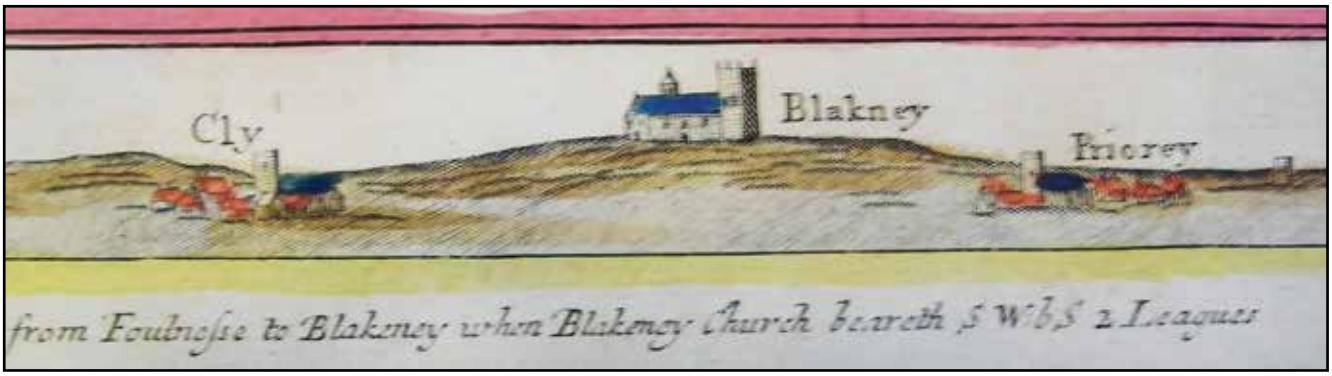
It is to be expected that the harbour is drawn as seen from seaward, so south is at the top of the chart and north at the bottom. The chart (presumably) shows magnetic north rather than true north. In his *Coasting Pilot* Collins notes that he found the magnetic variation at Greenwich in 1685 to be 6 degrees 30 minutes. Oddly, he doesn't say whether the variation was east or west of true, but from other sources it must be west.[35]

An important feature of any map or chart is its scale. On the Collins chart the scale line is not immediately helpful: 3 inches represents something unstated but presumably one mile. But which mile: nautical, statute or some other? As the nautical mile is based on latitude, which Collins does not use, this interpretation seems unlikely. Early maps used a variety of miles longer than eight furlongs, but in 1593 Elizabeth decreed an 8 furlong mile for London which soon became adopted over the whole country (the current statute mile), eventually displacing other measures collectively known as the Old English Mile. Collins will have used the 'new' English mile but Johannes van Keulen, on his chart for eastern England (fig. 4), preferred to show only Dutch, Spanish and French ones as well as English.

The importance of coastal profiles is illustrated by comparing the buildings on the profile (fig. 18) with those on the chart. The church towers have lost their spirelets and, as seen from seaward, it is no longer clear which end of Cley church has the tower. Blakeney church is dominant, as expected from its height above sea level and the apparent lack of trees tall enough to obscure the view. More obviously, the friary (or *'Priorey'*) is prominent on the profile but does not feature at all on the chart. Although most of the friary buildings would have been demolished soon after the Dissolution the Collins profile shows the tower of the church still standing. It is shown on Darby's map of 1586, and on a later document, probably from the 1600s, is a note that *'the steeple of the church remains for a land mark yet'*.[36] The farmhouse built in the ruins of the friary carries the date 1667 but the evidence suggests that the church tower may have co-existed with it for a while.

In the first half of the 1600s it was the English mapmakers who copied from the Dutch; by the end of the century the converse more usually applied. A chart of Blakeney Haven by Gerard van Keulen, published in 1734, shows what can happen in the process (fig. 19). The chart is clearly derived from that by Collins but some additions have been made – which provide yet another reminder that maps cannot be relied upon for accuracy. The topography is the same, with the addition of a symbol to denote salt marsh, although it is not applied to seaward of the wall on the spit. Creeks draining the marsh are more emphatic and a mini-cliff line has been introduced where the land gives way to marsh. Some additional depths have also been added, perhaps interpolated rather than measured.

Other additions include the name '*Piper and Pool*' on



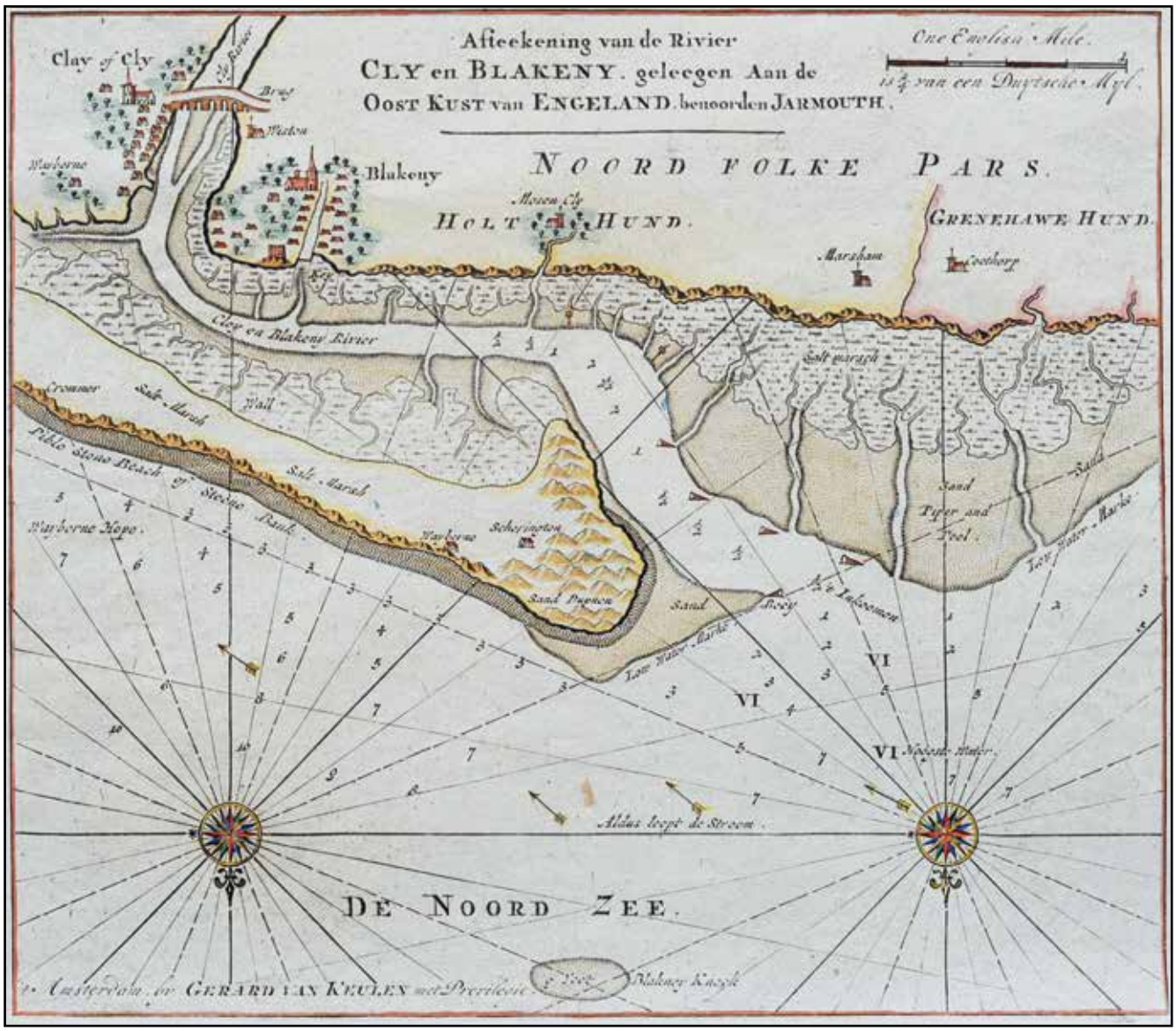


Fig. 18 (top). Extract from chart by Collins showing coastal profile (1693)
Fig. 19 (above). Blakeney and Cley by Gerard van Keulen (1734)

the sands west of the harbour entrance, an occasional extra tree, and many settlement names, mostly in the wrong places, thereby providing (for local people) more amusement than instruction. A small building on the end of Collins' spit becomes Sheringham, with Weybourne close by and Cromer not much further off – all on Blakeney Point (fig. 20). Weybourne appears again at the east end of Cley (where the mill and quay are today), and Morston, as *'Marsham'*, also appears twice. In contrast, Wiveton has been added in the correct location. The chart, measuring 11½ x 9½ inches, is much smaller than the one by Collins but shows all details as clearly. In van Keulen's atlas it appears on the same page as a chart of Margate.

John Darby

And so back to John Darby and his map made in 1586, only two years after Waghenaer's first marine atlas of 1584 and two years before publication of

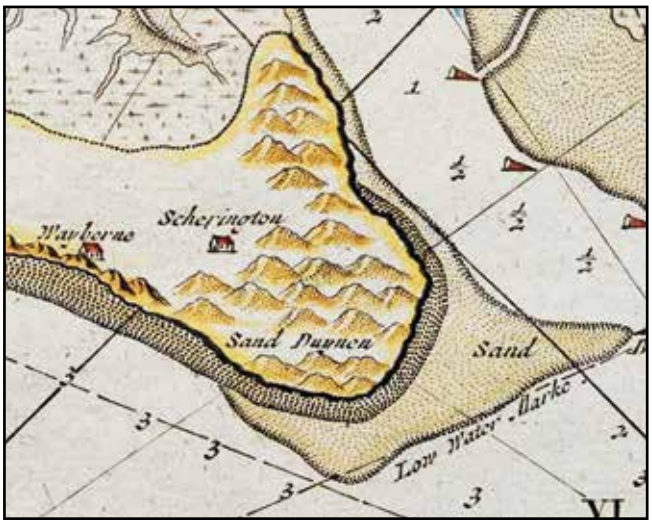


Fig. 20. Extract from chart by Gerard van Keulen (1734)

the English version. Fig. 21 shows a modern version of Darby's map made by Godfrey Sayers using two copies from the 19th century, the original having been lost. Only recently has the reason for its existence been discovered: to inform a lawsuit about which manor had the right to wreck and other items washed up on the foreshore. This and other aspects of the map are discussed in the first three articles in this issue and in previous issues of this Journal.[37]

The villages on the map have been drawn in their appropriate locations and mostly with some appreciation of their shape. Blakeney houses are concentrated in the High Street and the friary church with its tower is drawn as if it were still in use. The main church has only one tower, instead of two, but there is debate about whether another might have been shown on the original map. Cley houses surround the green in front of the church (with a spire) and extend northward along by the river, as they do today. The two bridges are shown separately; Wiveton church stands beside the stone bridge and the village straggles northward, again as it still does. As drawn, Cley village does look to be too far north but if the map is tilted down a little to the right the directions on land come more nearly true, and the shoreline trends a little more towards the northwest as might be expected.

Comparison with the Collins map is more easily made if one of them is rotated to match the other. In fig. 22 it is the Collins chart which has been turned because with more features and names it would be disconcerting to invert Darby's map. The difference between the two reflects the reasons why they were made. Collins shows what appears to be a more realistic topography of the Point and the navigable channel up to the Pit, as well as the beacons, buoys and depths necessary for pilotage. Darby is not concerned with these aspects. He draws the map to inform proceedings in court, shows the channel and sands in question and includes many of the names that feature in the evidence presented at court. It can be argued that the channel he shows is the forerunner of today's; it appears to run out to sea between the present Hood and the Long Hills where boreholes have shown a depth of sand that would have filled the former channel.

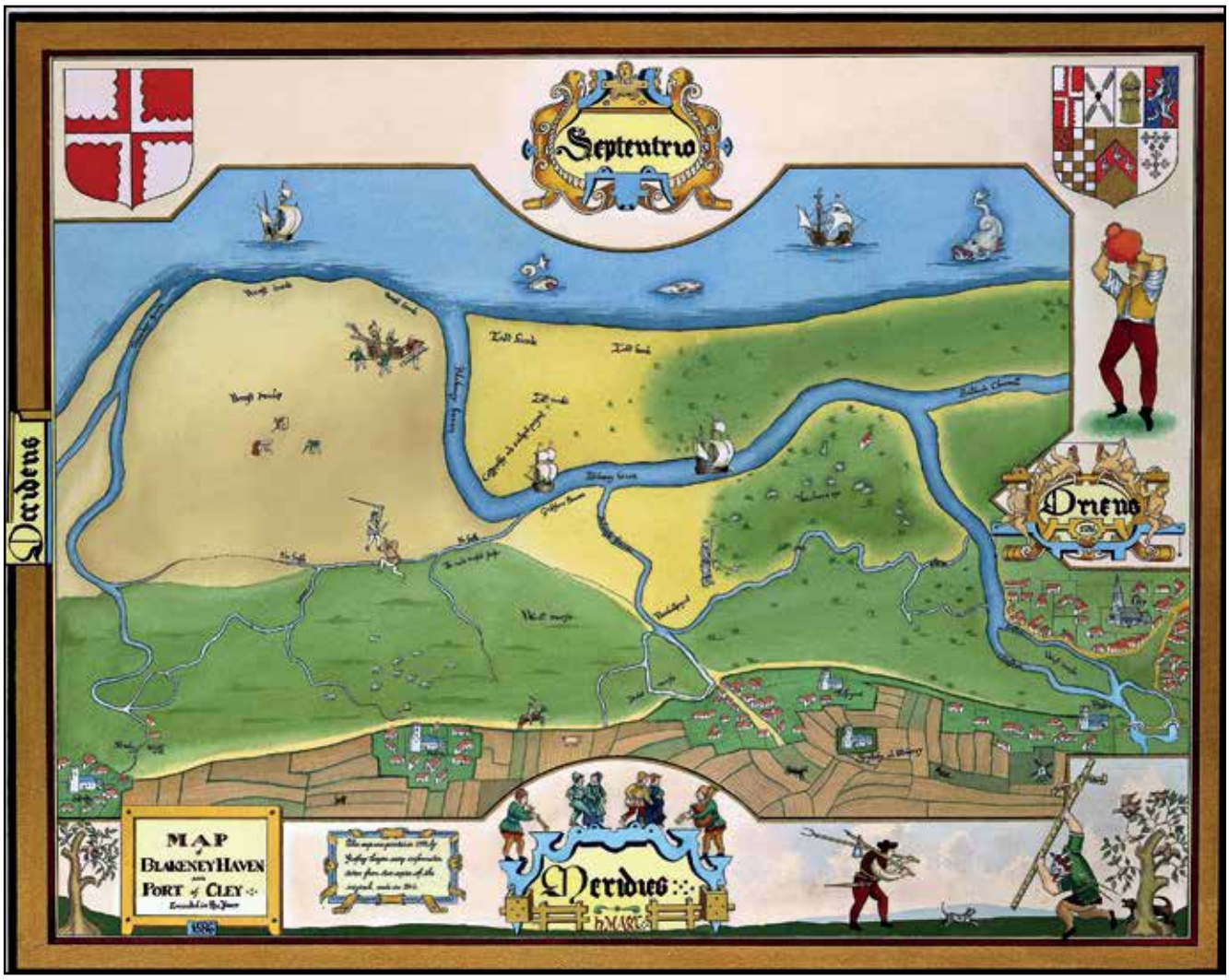
6 Conclusion

This article has described the origin of European charts in the Mediterranean and their gradual progression round the Atlantic and North Sea shores. At first, charts were all hand-drawn, mostly by professional map-makers copying from predecessors and often making changes in the process, whether by error or intention. Once charts were printed their numbers increased substantially but a few examples can illustrate general trends. As the 1700s progressed and chart-making methods improved so the results became more recognisably the forerunners of modern charts. While it is tempting to look at older charts and criticise their inaccuracies the conditions under which they were prepared should not be forgotten.

Early manuscript charts prepared for use at sea have been lost, having served their purpose, whereas those now surviving in libraries across Europe, some lavishly presented, were only intended to be used ashore. Some of the earlier charts were produced by experienced seamen but later ones were usually issued by cartographers and printers, using information gleaned from various sources. For seamen sailing in both home and foreign waters charts were never their foremost guides, being preceded and then accompanied by sailing instructions which continued to develop, voluminously, into modern times. Charts provided the opportunity to work out bearings for routes not listed in the directions but cannot show all the information that the directions provide. Even these do not dispense with the need to engage pilots on approaching harbours, nor can they describe a route in all the details that even an experienced seaman would need to know. A reminder can be seen in Proude's sailing directions where he says of a passage round the Norfolk coast: '*.... if it be the night ye shall go off but x fathom from the coast .... but the most wisdom is to bide till day*'.

Early printed charts, from the later 1500s and through most of the 1600s, could not be based on any specific projection, even though Mercator's was available from about 1600, because longitude was almost impossible to calculate and therefore accuracy to near-modern standards could not be achieved. Not that accuracy was necessarily the main objective; sometimes harbours and estuaries were deliberately enlarged at the expense of the intervening coastlines. Features onshore were only relevant if they had navigational significance so they represent only a selection of those that were present.

With the pace of modern movement and ever-increasing technological capability it can be difficult to appreciate the limitations of surveying in earlier times, whether on land or at sea. Ships could be wind-bound in harbour for many days, rough weather would make measurements difficult, and accurate instruments had yet to be developed. Detailed measurements ashore could only be made at walking pace. In these early days 'time meant money' as it does today, and those looking to make extensive new surveys or a major new atlas would be faced with financial problems. Waghenaer was always in trouble and needed help from friends, Saxton was privately financed even though Lord Burghley valued his maps, and Collins was not given funds to finish his survey of Ireland. Extensive new surveys



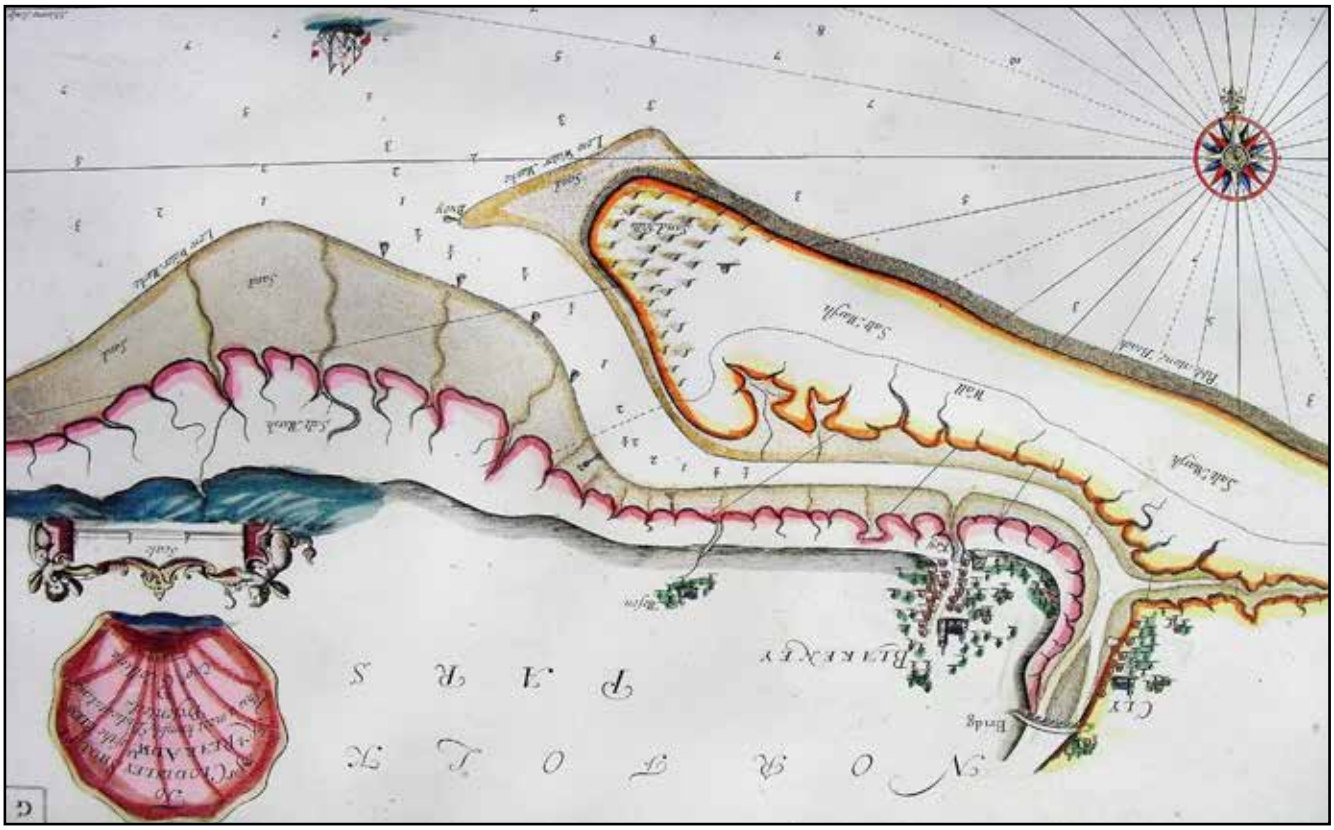


Fig. 21 (upper). Blakeney Haven by John Darby (1586)
Fig. 22 (lower). Blakeney Haven by Greenvile Collins (1693) rotated to match

were always very difficult to carry out and improved accuracy came about mostly by slow incremental change.

These factors emphasise that early charts do not reliably show land forms as they existed at the time and so the physical development of Blakeney Haven cannot be studied from charts alone. The same reservations apply to contemporary terrestrial maps.

Acknowledgements
The author is grateful to Jonathan Hooton for his comments on the draft text but is responsible for any errors which remain.

Sources and Copyright
All illustrations are from photographs by Richard Kelham and the author, except for figs 6, 7 and 11 which are from internet sources. Most of the charts used for illustrations are in private ownership, including Saxton (1574, reproduction), Waghenaer (1586), Darby (1586, modern version), Johannes van Keulen (1688), Collins (1693) and Gerard van Keulen (1734). The source of the others has been acknowledged in the text and relevant end notes.

Notes

1. Ben Finney, 'Nautical Cartography and Traditional Navigation in Oceania', Chapter 13 in J. B. Harley and D. Woodward (eds), *The History of Cartography* Vol. 2, 3. This extensive work in six volumes is not yet complete but the first three volumes (1987-2007) are available on-line. The essential elements of ancient navigation techniques survived into modern times on just a few small islands in Micronesia.

2. G. J. Marcus, *The Conquest of the North Atlantic*, Boydell Press, 1980.

3. The *Periplus of the Erythraean* (or *Red) Sea*, was probably written in the mid first century AD, although the earliest version now dates from the 10th century. It names many ports on the west coast of India and some on the east coast of Africa, and includes comments on trading opportunities as well as sailing instructions. Another example is the *Stadiasmus Maris Magni,* dating from the later third century AD.

4. R. B. Motzo, *Il Compasso de Navigare*, Gagliari, 1947. Contains a facsimile of the portolano.

5. William Ebesham's text, bound with other material, is in the British Library (MS Lansdowne 285, ff 136-40).

6. D. W. Waters, *The Rutters of the Sea: The Sailing Directions of Pierre Garcie*, Yale University Press, 1967. Contains facsimiles of Garcie's *Le Routier de la Mer*, the expanded edition *Le Grant Routtier* and William Copeland's *The Rutter of the See*, as well as a typed version of William Ebesham's text, known as 'the Lansdowne manuscript'. A more recent article argues that two documents from the 1460s – 1470s are the earliest English rutters and sets out a transcription of one of them, the 'Hastings' rutter: Robin Ward. 'The earliest known Sailing Directions in English: Transcription and analysis', *Deutsches Schiffahrtsarchiv* Vol 27, pp. 49-92, 2004.

7. To modern eyes Proude's instructions seem too brief to be of much value and the meaning is not always clear. In the typed version by Waters the sea route from Whitby to Winterton is described in only ten lines, much relating to tides.

8. David Woodward, 'Medieval Mappaemundi', Chapter 18 in J. B. Harley and D. Woodward (eds), *The History of Cartography,* Vol. I, 3. (See Note 1)

9. Portolan chart engraved by Paulo Forlani in Venice in 1569 using information supplied by the Portuguese cartographer Diego Homem. Earlier portolans were all hand-drawn but this late example was engraved for publication and re-issued several times. Forlani's dedication says that as such a map *for the use of mariners has not yet been published... I, desirous of serving the world, am doing so.* National Maritime Museum G 230: 1 / 21.

10. Gotland is an island in the Baltic, an important trading centre at least up to 1400. 'Britaigne' is always said to mean Brittany, which is a pity: if Chaucer had meant 'Britain' then all the coasts of north-west Europe would be covered in his description, and without duplication. Even so, it is unlikely that any shipman could have known all the creeks that Chaucer claims – at many harbours ships took on local pilots.

11. Both the Norfolk Record Office (NRO) and the Norfolk Heritage Centre in the Millennium Library at the Forum in Norwich have copies of the French edition of Waghenaer's chart portraying the coastline of East Anglia: NRO RFM 2/8 1031 x 7; Heritage Library, *Zee Carte vande Noordt Custe von Englandt* (Drawer 3.53). A facsimile edition of the *Spieghel* was produced in 1964, accompanied by a book: C. Koemann, *The History of Lucas Janszoon Waghenaer and his 'Spieghel der Zeevaerdt'*, Sequoia S A, 1964.

12. It is known that the Spanish Armada had their own sailing instructions for the Channel and for the southern North Sea as far north as Harwich, and they probably had copies of the *Spieghel* aboard as well. This might have been of some use along the North Sea coasts of England and Scotland, but once in the Atlantic the fleet returning to Spain would have been reliant on small-scale maps and whatever knowledge their captains and pilots possessed.

13. Without expert knowledge it can be very difficult to date a print that was sold separately or has become detached from the atlas that once contained it. Fig. 4 is a 'second state' example printed in 1688 or else between then and 1704 when Gerard van Keulen took over the business.

14. The *Merlin*, built in 1666, had a keel length of 53 ft, a relatively shallow draft of 7 ft 4 ins, and carried a crew of 30. The *Monmouth* had very similar specifications. Collins had numerous short-term commissions to both vessels, neither of which appear to have been at sea during January and February.

15. Greenvile Collins, *Great Britain's Coasting Pilot [etc]*, Mount and Page, 1753. A facsimile (but reduced) copy of this late edition was published in 1964 by Sudbrook Press and George G. Harrap. Spelling was inconsistent in the 17th century and though 'Greenvile' has become the usual spelling in recent times alternative forms, such as 'Greenville', are sometimes used and Collins himself often used 'Greenvill'.

16. Catherine Delano-Smith & Roger Kain, *English Maps: A History,* The British Library, 1999.

17. The full title is *Le Neptune François ou Receuil des Cartes Marines levées et gravées par ordre du Roy*. It was published in 1693 by A.-H. Jaillot with 29 charts of the coasts of western Europe. Pieter Mortier of Amsterdam had already acquired the copyright and had the charts re-engraved to publish them in the same year under the short title, with later supplements.

18. British Library, Egerton MS 2855, f.8r. *(This chart is free from reproduction restrictions.)*

19. C. Davison and R. Pestell, *Wild Waxham*, Norfolk Historic Buildings Trust, 2004. (This book can be seen in the Norfolk Record Office but there is no copy in the Norfolk County Library.)

20. Neville Long, *Lights of East Anglia*, Terrance Dalton, 1983.

21. Daniel Defoe, *A Tour through the Whole Island of Great Britain*, 1724-26. A version published by Penguin in 1971 warns that the work is an embodiment of Defoe's skills *'as chronicler, polemicist and creative writer. It is, in short, a deeply imagi native book'.* The basis for this comment is that the *Tour* is not a simple eye-witness account but an amalgamation of memories from various journeys undertaken over many years and incorporating material from elsewhere.

22. Gerard van Keulen, *De Nieuwe Zee Fakke*l, 1730. British Library C 8 d 6. This revision of Gerard van Keulen's atlas depicts Blakeney Haven in similar fashion to Corbridge (fig. 14) and introduces a bridge and houses at Cley as well as buoys and depths.

23. Peter Barber, 'Map-making in England c.1470-1650', Chapter 54 in J. B. Harley and D. Woodward (eds), *The History of Cartography*, Vol. 3, 2. (See Note 1)

24. Raymond Frostick, *The Printed Maps of Norfolk 1574-1840,* privately published, 2011. The essential reference book for the printed maps of Norfolk, listing every one with a short commentary on each.

25. Frostick (op. cit.) suggests the reason is that the smaller maps were intended for inclusion in a new edition of Camden's *Britannia* but were considered too small. The larger map can be seen on-line in the Norfolk chapter of a 1722 edition *(ebooks.adelaide.edu.au*).

26. British Library, Coloured chart (1539), Cotton Augustus 1.1, No. f.58.

27. John Nolan, *Sir John Norreys and the Elizabethan Military World*, University of Exeter Press, 1997.

28. B. Cozens-Hardy, 'Norfolk Coastal Defence in 1588', *Norfolk Archaeology* 26, 1938. B. H. St J. O'Neil, 'The fortification of Weybourne Hope in 1588', *Norfolk Archaeology* 27, 2, 1940. This article includes a photographic copy of the1588 plan. Jonathan Hooton, *The Glaven Ports*, Blakeney History Group, 1996. This book includes a re-drawn version of the original plan, and further reference to Black Joy Fort is contained in BAHS Newsletter No. 42, January 2017.

29. NRO MC 2443/2, *A Mapp of Wayborne in Norfolk 1704.*

30. Greenvile Collins, *Great Britain's Coasting Pilot*, 1693, British Library Maps C 8 d 7. The Norfolk Heritage Centre in the Forum, Norwich, has a copy of the last edition published in 1792.

31. A. Hassell Smith (ed.), 'The Papers of Nathaniel Bacon of Stiffkey Vol. II 1578-1585', *Norfolk Record Society* XLIX, 1982 & 1983.

32. Basil Cozens-Hardy, 'Havens in North Norfolk', *Norfolk Archaeology* 25, 3, 1972.

33. Magnus (Peter) Catling, *History of Blakeney and its Havens,* Typescript, c.1960. (reported in Hooton, *The Glaven Ports.*)

34. NRO PD 23/29, Copy of map of Salthouse Marshes by John Hunt, 1649.

35. Website *maps.ngdc.noaa.gov* has maps of magnetic variation for areas the size of the North Sea anywhere on the globe from 1590. For eastern Britain in 1690 the figure was approximately 6 degrees west. In 1590 (in Waghenaer's time) it was 12 degrees east.

36. NRO NAS 1/1/14/Blakeney (Frere MSS).

37. Jonathan Hooton, 'The 1586 Map of Blakeney Haven & Port of Cley, Part I', *Glaven Historian* 1, 1998 (introduces the map and its copies). John Wright, 'The 1586 Map of Blakeney Haven & Port of Cley, Part II', *Glaven Historian*, 2, 1998 (describes the court case). Raymond Frostick, 'The Map of Blakeney Haven & Port of Cley, 1586', *Glaven Historian* 9, 2006 (comments on John Darby). Diana Cooke, 'Sir William Heydon and his Heraldic Heiresses', *Glaven Historian* 15, 2017 (explains the heraldry on the map) Jonathan Hooton also discusses the map in *The Glaven Ports*.

William Allen: Weybourne ship owner

Jonathan Hooton

Synopsis:
William Allen was born in Weybourne in 1831 and lived in the area all his life, apart from a period at sea as a young man. In 1861 he acquired an interest in his first ship, the Parthenia, and over the next 21 years he acquired nine more ships, in whole or in part. No fewer than seven of these were lost and in 1882 he gave up ship owning and settled in Kelling as grocer, draper, postmaster and farmer, until his death in 1903.

When I wrote The Glaven Ports my predominant view of the 19th Century was primarily one of a slow, but inexorable decline in the face of embanking, railways, larger ships and the move away from sail.[1] Certainly the start of the century saw a thriving coastal port and after the end of the Napoleonic Wars, confidence was high and, with the formation of the Blakeney Harbour Company in 1817, there was a definite upturn in the shipping trade. However by the time of the Tidal Harbours Commission in 1845, a sorry picture of silting and decline seemed to set the pattern for the rest of the century. Head port status was lost in 1853 when the Customs House was transferred to Wells and with the railways continually edging nearer to north Norfolk, the Glaven ports began a struggle to survive which finally finished with the First World War. This dismal picture may well be true of the final years of the 19th century, but the spirit of enterprise was flourishing for much of the century. There were those who continued with the coasting trade quite successfully until the approach of the railways, and others, undeterred by the silting and narrowing of the local ports began to own and invest in larger ships which would never enter the Glaven, but trade with Europe and the rest of the world, often captained and manned by local men. William Allen (fig. 1) was one of these men.

William Allen was born on 14th August 1831.[2] He was the son of Philip Allen, who originally came from Bodham but was now a farm bailiff in Cley. Philip had married Anne Mason, from Gunthorpe, the previous November.[3] William was the eldest child but soon he was followed by three sisters and then three brothers. He was ten when the 1841 census was compiled but both he, and his younger sister Sarah, had left home by the time of the next census in 1851.[4] Sarah had gone into service with W. J. J. Bolding, brewer and the major landowner in the neighbouring village of Weybourne.[5] There was no mention of William Allen. It was likely that he had gone to sea, on ships sailing out of Cley, and was on a voyage at the time of the census. Certainly by 1853 he had reached the rank of mate serving for six months on the *William IV* from 9th February to the 28th October that year.[6] The *William IV* was a schooner of 62 tons built along the coast at Wells in 1830 and registered at Cley. She had been jointly owned by Margaret Moore, a widow who had 40 shares, and Thomas Beckwith, a clerk from Cley who owned the other 24. However, in 1850 they had sold their shares to Zaccheus Baines, who was the sole owner and master by the time that William Allen served on her.[7]

Fig. 1. Mr Allen. This photograph was taken by W. J. J. Bolding and identified as Mr Allen, a farmer from Cley, probably taken in the 1860s and is most likely to be William Allen. *(Courtesy Picture Norfolk)*

This may have been the last time that William went to sea. Sometime after 1853 he followed his father's profession and became a farm bailiff in the neighbouring village of Weybourne.

Which farm he was employed on is at present unknown. The 1851 census records the following farmers in Weybourne:
W. J. J. Bolding Farmer of 194 acres employing 11 labourers (by 1861 this was 280 acres employing 14 men, 12 boys & 4 girls)
Richard Copling Farmer of 23 acres employing 1 labourer

William Dixon Farmer of 500 acres employing 15 labourers
John Dawson Farmer of 50 acres employing 2 labourers
David Dady Farmer of 27 acres employing 5 labourers
Adam Beckham Farmer of 12 acres[8]

It was more likely to be one of the larger farms; it may have been in the neighbouring village of Kelling. William Allen did have his sister employed as a servant with the Boldings, and this may have led to work here; also later, he owned ships with William Dixon, so perhaps he was employed by Dixon. However, he was also to have a close connection with Richard Copling since he was soon to marry his niece.

The next we hear of William Allen is in 1858 when he married Mary Pigott. Mary was born in November 1829, the first child of John Pigott and Mary Ann White. John was a brewer and by the time of the 1841 census Mary had five more brothers and sisters, which is probably why, at the age of ten, she was living a little further down Crown and Anchor Street with her aunt and uncle, Richard and Mary Copling. Richard Copling was a grocer and draper, as well as being a farmer of 23 acres. The grocer's shop must also have been the post office since Whites Directory for 1854 lists Richard Copling as a grocer and the post office being at Richard Copling's. It was most likely to have been under the control of his wife, Mary Copling, since in Craven's directory for Norfolk of 1856 Mary Copling is described as a "Grocer and Draper" and later, as the postmistress, letters arriving at 10.30 am and dispatched at 2.00 pm.[9] Ten years later when their niece, Mary Pigott was twenty, she is recorded as being an assistant in the grocer's and draper's shop. Her younger sister, Sarah Ann, was also living there listed as a scholar in the 1851 census. By the time of the 1861 census, when Mary Pigott had been married to William Allen for three years she was described as a shopkeeper and had obviously taken over her uncle's grocery and drapery business. By then her uncle would have been in his seventies.

William Allen entered the 1860s as a newly married farm bailiff. By the census of 1871 he was described as a shopkeeper, but his business interests had widened much further so that in Harrods directory for 1868 he is not only the sub-postmaster, but is also described as a grocer, draper, outfitter, clothier, ironmonger and shipowner.[10] The first four occupations can be seen as a natural expansion in the retail trade but it is a much bigger leap to become a ship owner and one that required far more capital. William had had experience of going to sea and was providing a home, for his sea-going brother-in-law John Pigott, when he was ashore.[11] In 1861 Allen paid £500 10s for the *Parthenia* and then two years later £1,300 for the *Elizabeth*. The National Archives Currency Converter estimates the 2017 equivalent value of the purchases to be £29,594 for Parthenia and £76,868 for the Elizabeth. It is true that Allen sold some of the shares on, but he still held 32 shares in the Parthenia and 35 in the Elizabeth. It seems unlikely that from a life at sea, employment as a farm bailiff, and the proprietor of the local drapery and post office he would be able to save that amount. Neither did he have sufficient collateral to raise a loan. How he managed to get the funds needed for investing in this venture is not known, perhaps he had inherited money. However, it is interesting to try and piece together the networking through friends and business acquaintances in the local area that led to him taking the risks involved in being a ship owner.

Fig. 2. Weybourne Main Street 1870s. This was Crown and Anchor Street, where William Allen lived whilst owning and managing his fleet of ships. *(Courtesy Picture Norfolk)*

Three people seem to be influential. The first was William Dixon, who farmed the 500 acres of Abbey Farm, and who may have employed William Allen as his farm bailiff. He had already invested in shipping. Two years before William Allen bought the *Parthenia,* Dixon had invested in 22 shares of the *Riga*, a 177 ton brig, owned by the Cley merchant James William Porritt. Dixon went on to buy 16 shares in *Parthenia* and although not the major shareholder, became the managing owner.[12] He did not invest in the *Elizabeth*, but went on to purchase shares in at least three other ships owned by Allen. Perhaps he encouraged William Allen to go into the ship owning business.

Another influential figure appears to be James Jary, master mariner from Cley. He not only purchased as many shares as Dixon, but became the master of the *Parthenia.*[13] At 183 tons, the Parthenia was too large to come into Blakeney and probably operated out of the Tyne. At any rate, by the time Allen bought the *Elizabeth*, in which Jary had five shares, he had moved to the North East, being described as a master mariner of South Shields.[14] Four years later, he also took five shares in Allen's next ship, the *Osborne & Elizabeth*, by which time he was described as a ship owner of South Shields.[15] There is also evidence to indicate he was involved in purchasing shares in another of Allen's ships, the *Alswold* as he is mentioned by name along with Allen and six others.[16] Since the *Alswold* was purchased from owners in South Shields, it is quite likely that Jary suggested, or helped with the sale. Since many of Allen's ships operated out of the North East ports having Jary as a member of the South Shields ship owners on site to deal immediately with any problems, must have been a great help to William Allen. So perhaps Allen's friendship with Jary may well have helped him decide to buy the *Parthenia*.

Lastly, there was William Johnson Jennis Bolding. He was already employing Allen's sister, Sarah, as a servant in 1851. The Boldings were the most

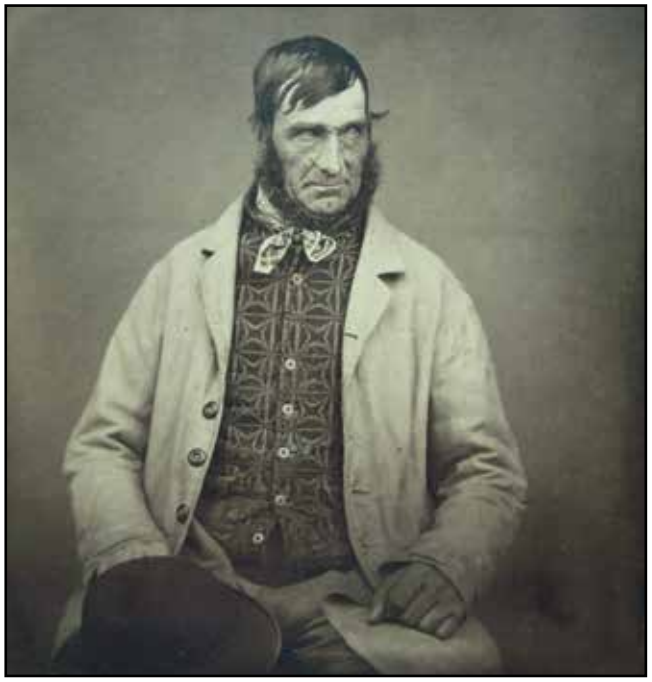


Fig. 3. William Cooke 1860s. This is another of W. J. J .Bolding's photographs. William Cooke was Bolding's gardener and invested in 6 shares in the Elizabeth and 4 shares in the Osborne & Elizabeth. *(Courtesy Picture Norfolk)*

prominent family in Weybourne. When W. J. J. Bolding inherited his estate in 1847 on the death of his father, he was the largest landowner and farmer in the parish as well as owning the watermill, maltings, a brewery and several public houses in north Norfolk.[17] Two of Bolding's sisters, Hannah and Esther, had eight shares each in a 72 ton Blakeney schooner, the *Camellia* which was part of the Temples' fleet.[18] In 1845 Esther had married William Monement, a cork merchant in King's Lynn. In 1846 Bolding joined William Monement as a ship owner, purchasing the *Enterprise* to help with importing cork for Monement's business. The *Enterprise* was a schooner that had been built locally at Morston (and commissioned by the Temples[19]) in 1842 and owned by group of local people, none of whom had more than eight shares. It was probably through William Bolding's connections that the *Enterprise* was purchased. One of the owners, Elizabeth Martha Johnson was married to Bolding's uncle, Salthouse farmer John Francis Johnson. She had inherited the shares on the death of her husband and sold them, along with all the other shareholders, to Bolding and Monement. Further dealings led to Bolding and Monement owning 28 shares each, having sold eight to the new master of the vessel, John Hutchins Cornhill, a master mariner from Brixham.[20] The *Enterprise* was small enough to use Blakeney but once she was sold, she began trading out of King's Lynn, although she returned to Blakeney once a year in the autumn to settle the account and pay over the profit to Bolding and Monement.[21] This venture must have been successful since Bolding and Monement went on to buy a newly built ship in 1853. This was the *Parthenia*, built in King's Lynn in 1853. William Monement and William Bolding had control with 17 shares each, with the remaining shares being split between Robert Henry Cooper (gentleman) of Wiveton (14 shares) and John Hutchins Cornhill (master mariner) of Brixham (16 shares) and the latter moved from the *Enterprise* to become master of the *Parthenia*.[22] The *Parthenia* was to become Allen's first ship, so it is likely that Bolding may well have persuaded Allen to move into ship owning.

As we have seen, William Bolding owned the *Parthenia* and the *Enterprise* jointly with his brother-in-law, Frank Monement and John Hutchins Cornhill, the master. However, the ships were registered in King's Lynn and were employed largely in Monement's cork business. The surviving copy of the *Enterprise's* log book showed that she spent most of her time taking coal out to Spain and returning with cork for Monement in Lynn and lead for Newcastle.[23] It is likely that the *Parthenia* did the same. The *Enterprise's* last voyage was from Newcastle to Lynn when she was driven ashore at Newbiggin-by-the-Sea (which is actually north of Newcastle), in a force 10 easterly gale accompanied by sleet, on 4th January 1857. She drifted off again, but was driven ashore once more and went to pieces. Interestingly the master was described as Cornhill, so presumably the *Parthenia* was out of action at this time and he had returned to the *Enterprise*.[24] Four years later Monement decided to stop owning ships and sell the *Parthenia*. His partner, Bolding, must have been aware that his local post master was interested in becoming a ship owner, and may have persuaded him to buy the *Parthenia*. In addition, Allen might have taken James Jary's advice, since Jary became *Parthenia's* master, and purchased 16 of the shares. Allen, it seems, did not buy this first ship outright. The Bill of Sale only records Allen purchasing 17 shares from Bolding and 15 from Monement so it is not clear whether Allen purchased the rest of the shares and sold them on or not.[25]

Trading with the *Parthenia* must have been successful because two years later in November 1863 he bought the *Elizabeth*, a brig of 167 tons. She was built in Lancaster in 1840, registered at Liverpool and owned by a London shipbroker, William Henry Atkinson, from whom William Allen bought all of the ship for £1300 on 6th November 1863. Soon he set about selling on the shares. James Jary (now living in South Shields) bought five shares in December. Thomas Lynes (ship owner in Kelling) bought fifteen on 2nd January and on 11th January 1864, six shares were sold to William Cooke of Weybourne, (who was W. J. J. Bolding's gardener: fig. 2) and three shares went to William's brother-in-law, William Piggott, master mariner from Weybourne.[26] Clayton's Register of Shipping for 1865 lists William Allen as the managing owner and a 'J' Piggott as the master, which I believe should be William Piggott, the shareholder and brother-in-law.[27] By 1869 William had moved on to become master of the *Azoff*, another of Allen's ships and was replaced by William Mann, an experienced master from Cley. Mann then left the *Parthenia* in 1871 after he had saved enough money to buy his own brig – the *Mary* 152 tons of which he was the managing owner and master.[28] He sailed the Mary until 1876 when she was broken up and he retired from the sea.

Both of these ships traded successfully for five years which gave Allen the confidence to buy more ships and this led to a twenty one year period during which William Allen was a ship owner. The growth and decline of his business is shown in the table below.

YEAR	SHIPS OWNED	SHIPS BOUGHT	SHIPS SOLD	SHIPS LOST
1861	1	Parthenia		
1862	1			
1863	2	Elizabeth		
1864	2			
1865	2			
1866	2			
1867	3	Osborne & Elizabeth		
1868	4	Azoff		
1869	5	William & John		
1870	7	Lizzzie Waters Jane Gray*		
1871	8	Isabellas		
1872	7			Azoff
1873	8	Alswold	Isabellas	Osborne & Elizabeth
1874	7	Comus		
1875	7			William & John
1876	6			
1877	6			Comus
1878	5		Parthenia	Jane Gray*
1879	3			
1880	3			Alswold
1881	2			Elizabeth
1882	1		Lizzie Waters	

Table 1. William Allen & Co.: ships acquired and lost 1861 - 1882

*The Jane Gray was never owned outright, or controlled by William Allen, and was not really part of his fleet. It was owned by the Blakeney merchant, Robert Cubitt Wells, and William Allen purchased 6 shares in the vessel.

Allen's career as a ship owner can be split into three sections; 1861-71, a successful period of optimism and growth where he built up his fleet; 1871-4, when he suffered his first losses, but continued to buy ships; finally the period 1875-82, where no new ships were bought and slowly ships were lost, until in the final year his sold his last remaining ship.

The five year period 1867 to 1871 was a period of optimistic expansion. William bought a ship a year, as well as investing in another, leading to a fleet of eight ships which must have kept the Weybourne post master extremely busy. It is illuminating to see the pattern of share ownership.

By 1867 Allen owned two ships; one managed by him and one by William Dixon, and had built up six years of trading experience. He obviously felt it time to expand his business and on 13th May 1867 he paid £1,200 to Osborne Dan of Faversham, for his brig, the *Osborne and Elizabeth*. She was a ten year old brig of 178 tons. We do not know the connection with Faversham, but within four days of the sale, Allen had resold thirty eight of the shares. The *Parthenia* had only had two other shareholders beside himself, and this had increased to four with the *Elizabeth*. This time there were seven others sharing the profits (and risks) with him and they were mainly within his family/acquaintances from the local villages. Wisely, he had recruited an accountant, Richard Funnell from Holt. As with his previous two ships, he involved the Captain of the vessel, this time, Henry Mason of Cley, who was his cousin from his maternal side. His father, Philip Allen also supported him financially as did William Cooke, Bolding's gardener, from his own village. James Jary, the first master of and shareholder in the *Parthenia*, and also a shareholder in his other ship, the *Elizabeth*, took five shares, even though he had now moved to South Shields and gave ship owner as his occupation. It is very likely that the *Osborne & Elizabeth* would be frequently trading out of the north-east ports and Jary would be a very useful contact, able to keep an eye on the vessel. This left William Lown, a butcher from Cley, and apart from Jary, the only other person not living in north Norfolk, Sam Tipping, was described as an inn keeper from London. Although the link has not yet been discovered, he must have had a strong connection with William Allen through family, friendship or business.[29]

It was only just over a year later when Allen bought his

next ship, his largest so far, the 250 ton brig the *Azoff*. She was also a lot older than his other ships which is why she was two thirds of the price of the *Osborne and Elizabeth*. Built in Sunderland in 1847 she was owned by Cringle & Co. and registered at Lowestoft by the time Allen bought her. William Cringle was a master mariner from Burnham Overy and so it was quite likely that Allen knew him personally. This time Allen was able to persuade William Dixon to invest in this ship. Dixon already held shares in the *Parthenia*, and indeed, was its managing owner, so it is likely that he was involved in William Allen's company. This time, Dixon took twenty one shares and Funnell, the accountant, twelve. This still left William Allen as the major shareholder with thirty one; however, it was Dixon who was the managing owner. Four years later, Allen sold eight of his shares (leaving him with twenty three) to George Moy, master mariner of Blakeney.[30]

William Allen's business continued to prosper. In May of the following year he bought his biggest ship yet, the *William and John*, a brig of 318 tons. Originally named the *Europa*, she had been built in Prussia in 1854 and was fifteen years old when Allen bought her although it is not known what he paid for her. The shareholders were much the same. William Dixon took sixteen shares and Richard Funnel eight. Seven shares once again went to the London publican, Samuel Tipping leaving Allen, as the largest shareholder with thirty three. The following year Allen did not buy a ship. This was possibly because in the autumn of 1869 the *Azoff* had been badly damaged in the October storms and had to be towed into Lowestoft by a steam tug. Perhaps these repairs used up much of the profit that year. However, he did buy six shares for £50, in June 1870, in the *Jane Gray*, a three masted barque, bought by Robert Wells of Blakeney. Richard Funnell (this time described as a ship owner) also took six shares. It is interesting to note that William Lown, the Cley butcher who invested in the *Osborne and Elizabeth*, also had six shares, but now he was also described as a ship owner.[31]

The following year he was back on track and bought the *Lizzie Waters*, a brig of 256 tons built in 1864. This time he paid £1,425 for a six year old ship. Unfortunately the transactions in the shipping registers cannot be found and it is not known who he sold the shares on to, though it was likely to have included Funnel, Dixon and Tipping. This ship was to prove one of his most successful purchases and was the last one he sold when the business was wound up.[32]

William Allen and Co. was obviously going from strength to strength. In November 1871 Allen bought the 268 ton brig *Isabellas* for £1,150. She was eleven years old having been built in South Shields in 1860. Again, Allen was the largest shareholder and Dixon, Funnel and Tipping had 12, 10 and 16 shares respectively with three going to Adelaide Howlett, a widow from Binham and three to Harry Parker of Cley.[33] This pattern of growth and ownership is summed up in Table 2.

VESSEL & TONNAGE Shareholder	**DATE BOUGHT** Occupation	**COST & AGE OF SHIP** Place of residence	**SHARES** No. held
Osborne & Elizabeth – 178 tons	**1867**	**£1,200 (10 years old)**	
William Allen	Ship owner	Weybourne	26
Henry Mason	Master Mariner	Cley	3
William Lown	Butcher	Cley	6
Richard Funnell	Accountant	Holt	5
William Cooke	Gardener	Weybourne	4
James Jary	Ship owner	South Shields	5
Samuel Tipping	Innkeeper	London	10
Philip Allen	Farmer	Cley	5
Azoff – 250 tons	**1868**	**£800 (21 years old)**	
William Allen	Ship owner	Weybourne	31*
*(after selling 8 shares to Moy, Allen's shareholding reduced to 23)			(23)
William Dixon	Farmer	Weybourne	21
Richard Funnell	Accountant	Holt	12
*(George Larkman Moy	Master Mariner	Blakeney)	(8)
William & John - 318 tons	**1869**	**? (15 years old)**	
William Allen	Ship owner	Weybourne	33
William Dixon	Farmer	Weybourne	16
Samuel Tipping	Publican	Brompton, Middlesex	8
Richard Funnell	Accountant	Holt	7
Lizzie Waters – 256 tons	**1870**	**£1,425 (6 years old)**	
William Allen	Shipowner	Weybourne	64
(the transactions were carried forward but could not be found in the archives)			
Isabellas – 268 tons	**1871**	**£1,150 (11 years old)**	
William Allen	Shipowner	Weybourne	20
William Dixon	Farmer	Weybourne	12
Richard Funnel	Accountant	Holt	10
Samuel Tipping	?Publican	?Salthouse	16
Adelaide Howlett	?Widow	Binham	3
Harry Edmund Parker	?	Cley	3

Table 2. Ownership of Ships bought 1867 - 1871

The year November 1871 to November 1872 could be considered as the most successful period for William Allen & Co. For ten years his company had continued to expand so that now he owned seven ships with six shares in another. Not counting the *Jane Gray*, (which was Robert Wellls' ship and in which he only had six shares) his company owned a total of 1,594 tons divided between their seven ships. They were trading with places as far apart as Riga, Latvia (*Azoff*), Stockholm, Sweden (*Elizabeth*), Natal, South Africa *(Isabellas*), Boston, USA (*Lizzie Waters* 1873), and Gävle, Sweden (*William and John* 1874) which meant managing owners, like William Allen and William Dixon were sending and receiving letters from across the globe.[34]

Although the vessels were costly to maintain, so far William Allen & Co. had not lost a ship. The prudent thing to do, of course was to insure your ship and the dynamic Mr Allen was instrumental in forming the Weybourne Insurance Association, later to become the Weybourne and Blakeney Insurance Association. Very little information has come to light about this venture, although the Rules and Regulations of the original Association have survived. At that time, "no greater sum than £400 shall be insured upon any one vessel" and there was only one class with all vessels valued at "£6 per register ton" with "Lost anchors and chains and all damage over £5 to be allowed in full." There was "A call of three per cent, to be made as an entrance fee" and this was to be deposited with Messrs. Gurneys and Co at Holt in the names for three members of the Association "who shall be considered managers of the Association for the time." Also no claims for compensation could be settled "by less than three members of the Association, all members to have shares in one or more ships insured in the Association." This compensation would then be paid immediately as far as funds would admit.[35] There is an intriguing reference to the Association in Peter Catling's "Blakeney and its Havens" but no source is given. It states that "in the period 1868-1874 there were fourteen vessels from Cley insured with the Weybourne and Blakeney Insurance Association, and although they may not all have entered the Haven, the smallest was of 56 tons and the largest as much as 350 tons."[36]

What else was going on in Allen's life during this exciting period? After marrying Mary Pigott in 1858, they had a daughter, Mary Ann Copling Allen who sadly lived only 19 months. However, six months later, they had another daughter, who was baptised with the same name. This Mary Ann Copling Allen married George Spink, and they were later to take on the Weybourne post office duties from William. Two sons followed, John in 1863 and William, in 1864. John soon died in 1864 but William junior, survived to outlive his father. One more daughter, Florence Amelia Allen, was born in 1871 to complete the Allen family.[37]

Allen shares when sold or lost	Vessel	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	Who Sold to	Where and when Lost
32	Parthenia																									Sold on to Bessey & Palmer	1909 Lost on Cockle Sand
35	Elizabeth																										1881 Wrecked on Dutch Coast
26	Osborn & Elizabeth																										1873 Foundered Hanko, Finland
23	Azoff																										1872 Lost in the Sound
33	William & John																										1875 Abandoned near Friedrickshaven
Unknown	Lizzie Waters																									Sold on to C Weatherburn	1889 Condemned at Stavanger
6	Jane Gray																										1878 Run down & sunk off Portland
20	Isabellas																									Sold Oct 73 to Mason	1877 Lost Timor Sea
Unknown	Alswold																										1880 Abandoned East Barrow Sand
Unknown	Comus																										1877 Disappeared last sighted off Tuskar
Ships owned		1	1	2	2	2	2	3	4	5	7	8	9	8	7	7	6	6	5	3	3	2	1				
Lost													Azoff	Osborne & Elizabeth		William & John		Comus	Jane Gray		Alswold	Elizabeth				
Sold														Isabellas					Parthenia				Lizzie Waters				

Table 3. W. Allen & Co. timeline

A look at Table 3, the timeline shows that things were not to stay so prosperous. Although Allen bought two more ships, a series of losses, forcing some ships to be sold, started a decline, which accelerated after the loss of the *Comus* in 1877. This all began in the November of 1872 with the loss of the *Azoff*. She was recorded as "stranded" in the unseaworthy ships commission, so it is possible that some of the cargo or materials may have been salvaged, and it is likely there was no loss of life from the crew of eight. William Pigott had been the master in 1869 and he continued to be the master of the William and John after the *Azoff* had been lost. The managing owner was William Dixon.[38] This first loss of a vessel did not seem to seriously affect the company and at the end of the year William Allen bought a new ship, the *Alswold*. He purchased 21 shares from Margaret Hodgson on 16th December 1872 and completed the deal in the new year by acquiring the other 43 shares from J W Bennett of South Shields on the 2nd January, 1873, altogether paying £1,999 6s for a 299 ton brig, only five years old.[39] Unfortunately the transactions book is missing and it is not known who he sold the shares on to, or how many he kept, although there is the following entry in Richard Key's Dictionary of Tyne Sailing Ships; "on June 2nd 1873, the *Alswold* was sold to William Allen of Weybourne, Norfolk, James Jary of South Shields and six other south country people". It is likely that the "2nd of June" was actually the 2nd January" which is the date in

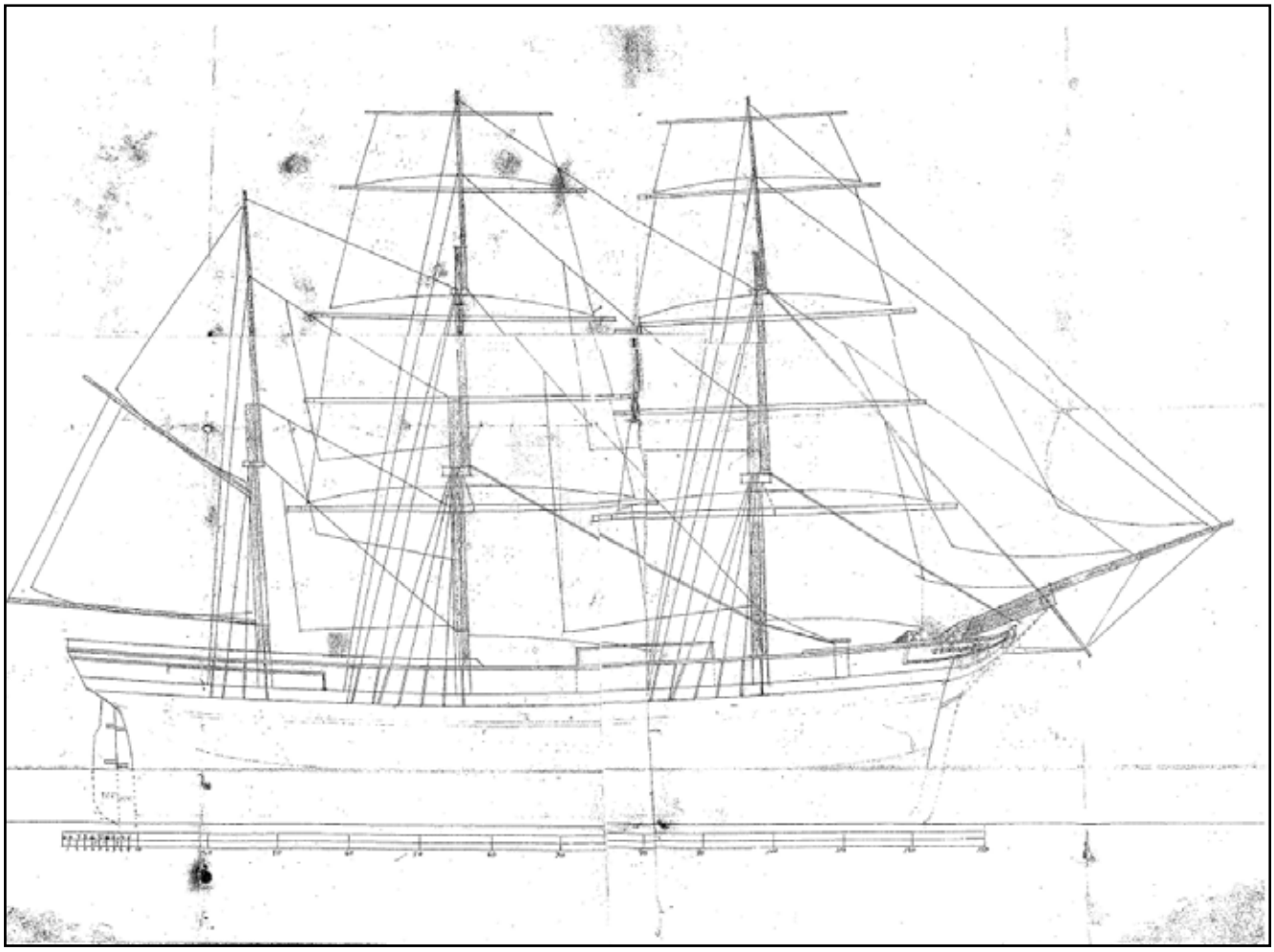


Fig. 4. Comus Sail Plan. This is a pen and ink drawing of the sail plan of the* Comus*, the 366 ton barque. It was the last ship that William Allen bought in 1874 and the largest in his fleet

the register. This shows that Allen was still in touch with James Jary, (the master of his first ship) and it is likely that the six others included Dixon, Tipping and Funnel.[40] Confidence was still high and the Company continued to prosper until the autumn.

It was then that the news came of the loss of the *Osborne and Elizabeth*. She foundered off the Hanko peninsular, south west of Helsinki in the Gulf of Finland on 18th September 1873. This was obviously a more serious financial loss and led to the decision to sell a ship in order to keep financially solvent. The ship chosen was the *Isabellas*, which at that time was in Australian waters under the command of William Allen's cousin, Captain Henry Mason. Allen bought back all the shares in *Isabellas* and became her sole owner one month after the loss, on 16th October. She was then sold to Henry Mason and her registry transferred to Adelaide. Whether Henry actually had the funds to buy her, or whether she was gifted to him by his uncle, is unknown, but Allen obviously trusted him and thought that he was more likely to get a sale out in Australia. This he did quite quickly and the *Isabellas* was sold to Thomas Brooks and John Goodsir, ship owners in Newcastle, New South Wales, where her registry was transferred to.[41] Henry Mason must have had to find a ship to bring him back home. The *Isabellas* continued to trade in southern waters until having the misfortune to be caught in a cyclone. She was lost on 17th February 1877 off the Lacepede Islands in the Timor Sea, near the Australian North West coast.[42]

This action soon put the Company back on a sound financial footing and at the start of the following year, Allen was back buying another ship for Henry Mason to command. This was his largest ship, the *Comus*, a barque of 352 tons. Between 24th and 28th January 1874 Allen purchased all the shares off Thompson, Harper, Black and Hair although we only know what he paid Thompson – £1,031 10s for 22 shares, in a ten year old ship.[43]

There followed an uneventful year of prosperous trading in 1874 and much of the following year. Allen & Co still owned six vessels plus the six shares that Allen had in the *Jane Gray*. This period ended in October 1875 when the *William and John* had to be abandoned. On a voyage from Kronstadt to Dover she ran aground off Denmark. After several failed attempts to re-float her, the wind increased from the East. A government steamer also tried several times to tow her off without success but by then there was 8 foot of water in the hold. After saving some of the cargo, sails and stores, she was abandoned and the crew were taken to Fredrikshavn.[44] Although this was a major setback, there was no loss of life and the salvage of some of the cargo and equipment and insurance payments meant the Company was able to continue trading. No new ships were acquired but trade continued fairly smoothly until August 1877, when he lost another ship. The following short statement from Richard Key's Dictionary of Tyne Sailing Ships is, at present, all that can be discovered about the end of the *Comus*; "The *Comus* left Troon on 29th July 1877. She disappeared after being sighted off Tuskar."[45] It was the loss of the flagship that really signalled the beginning of

Fig. 5. This shows the position of William and Mary Allen's fallen tombstone in Weybourne Churchyard. The stone standing to the left is to their first daughter, Mary Ann Copling Allen 1859-61, and that to the right, is for Richard Copling, Mary Allen's uncle

the end the Company which would only be trading for another five years.

This must have been quite a blow. The disappearance of the ship, crew and cargo in unknown circumstances would have been tragic, even in an industry quite used to bad news. Her master in earlier voyages was Henry Mason, and it must be assumed that he was master during this trip. He was family, a cousin of William's and this must have been doubly tragic. In addition there was a financial implication. The following year another ship had to be sold. This time it was Allen's first ship, the *Parthenia*, which was sold to Bessey & Palmer Ltd of Great Yarmouth on 4th October 1878 with the registry transferred to that town in the December of that year. The *Parthenia* had been a very reliable ship for the Company but she was 25 years old. However, she continued trading for another 31 years, until being lost on the Cockle Sands in September 1909. This meant she had been trading for 56 years, quite a remarkably long time for a brig.[46] In the meantime, William Allen had already lost his six shares in the *Jane Gray*, when she had been run down and sunk off Portland 25th January 1878.[47] This left the Company with three ships, the *Elizabeth*, the *Lizzie Waters* and the *Alswold*. 1879 proved to be an uneventful year, as did the first nine months of 1880. However in the October of that year, the *Alswold*, on a return passage from Kronstadt struck the East Barrow Sand and had to be abandoned, her crew being rescued by the steam tug *Alarm* and landed at Gravesend.[48] This left Allen with two ships. He continued to trade with them until the October of the following year, when the *Elizabeth* was wrecked on the Dutch coast on 15th October 1881.[49]

This proved to be the final straw and William, who was now 52, must have decided to wind up his company and cease being a ship owner. His remaining ship, the *Lizzie Waters*, was sold the following year to Charles Weatherburn of South Shields. She continued to trade for another seven years before being condemned in Stavanger in January 1889.[50]

What happened to William Allen after he stopped being a ship owner? Whites Directory for 1883 lists him as a grocer, draper, postmaster and farmer, in Kelling; the Kelling entry also records him as a farmer, living in

Fig. 6. William & Mary Allen tombstone. The final resting place of William Allen, in Weybourne churchyard

Weybourne. He had started as a farm bailiff when he first came to Weybourne, had he made enough from his shipping enterprise to buy a tenancy to farm in Kelling? He certainly kept on the shop and post office for a while, probably run by his wife and daughter. However, Mary died on 17th October in 1888 and this brought about many changes. Their daughter, Mary Ann Copling, had married George Spink, from Banningham and the Spinks took over the grocery, drapery and post office business (if they had not already been running it) and were listed as the new owners in the 1891 census. William Allen disappears at this point. He is not found in the 1891 census in Weybourne, Kelling or Cley. He does not appear in those places in the 1901 census either, although he is on the Norfolk electoral registers for Cley-next-the-Sea for 1900-03.

The last record of William Allen is his will. His executors were his youngest brother, Robert Allen, (who was by this time, running Newgate farm in Cley), along with his son William and daughter Florence. Florence, who at this time was unmarried, was left a legacy of £100, William £50 and £10 was left to his brother for the trouble of proving his will. The next clause sheds insight into what he was doing towards the end of his life since the trustees were to carry on "any farm of which I may be tenant or lessee at my decease" until the lease or tenancy could be sorted out. His estate was to be sold, and after settling the funeral expenses, the proceeds were to be split equally between William, Florence and Mary Ann Copling. Mary Ann was married and therefore did not need a legacy since she was being looked after by her husband, however, in a codicil to his will he did decide to leave her £35 as well as the share in his estate. The codicil was added 1st

September 1903 and William died later that month on 22nd September. Wherever he might have been living or working he was buried in Weybourne churchyard next to his wife.[51]

William left legacies amounting to £195 which in 1903 had the equivalent purchasing power of £15,243 in 1900 according to the National Archives Currency Converter. This is not excessive wealth, and indicates that William Allen's attempts at being a ship owner did not make his fortune, but considering the risks involved, it did not bankrupt him either. Many questions still remain unanswered, but the narrative provides an interesting insight into the entrepreneurial spirit that was alive in the north Norfolk villages in the second half of the 19th Century.

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43. TWA EX.NC/1/35 MF1488; Bill of Sale T & T NWHCM:1959.210.18
44. T & T NWHCM:1959.210 Logbook; J. Mills, 'The William & John', East Coast Mariner 19 1971.
45. Richard Keys, Dictionary of Tyne Sailing Ships, 1998, p. 231.
46. NRO P/L/SH/10 28/1853.
47. TWA EX.NS/1/14 MF 1517.
48. Richard Keys, Dictionary of Tyne Sailing Ships, 1998, p. 129.
49. NRO P/SH/L/8 9/1863.
50. Richard Keys, Dictionary of Tyne Sailing Ships, 1998, p. 459.
51. Court of probate IR27/598 Will no 468 in NRO MF 1348.

The Billyboy Ketch *Bluejacket*

Serica East

Synopsis:
The decline of an iconic Blakeney ship mirrors the decline of the port.

BLUEJACKET must be the best-known name of all the ships which traded out of Blakeney Harbour in the middle of the 19th century. Her history is admirably detailed by Jonathan Hooton in his articles published in the *Glaven Historian* Nos. 11 and 12 in which he displayed photographs and details of the many Blakeney ship models made by my father, Peter Catling. Peter's great great uncle was Benjamin Henry Nichols who bought all sixty four shares in Bluejacket in 1868 and brought her to be based in Blakeney.

From *Bluejacket's* trading days, decline set in and she is seen in the foreground of one of J. C. Parker's postcards, against the High Quay at Blakeney, presumably whilst used as a lighter (fig. 2). (J. C. Parker was a nephew of Benjamin Nichols.) According to my father's notes, *Bluejacket* was put on Morston Marshes by Snivvy Bishop in 1909 and her final use was as a houseboat by Phil Hammond (fig. 3). Realising that her end was not far off, in 1932 my father decided to take off her lines off with a view to producing a model. My mother was enlisted to hold the end of the tape as required and can be seen in the photo opposite.

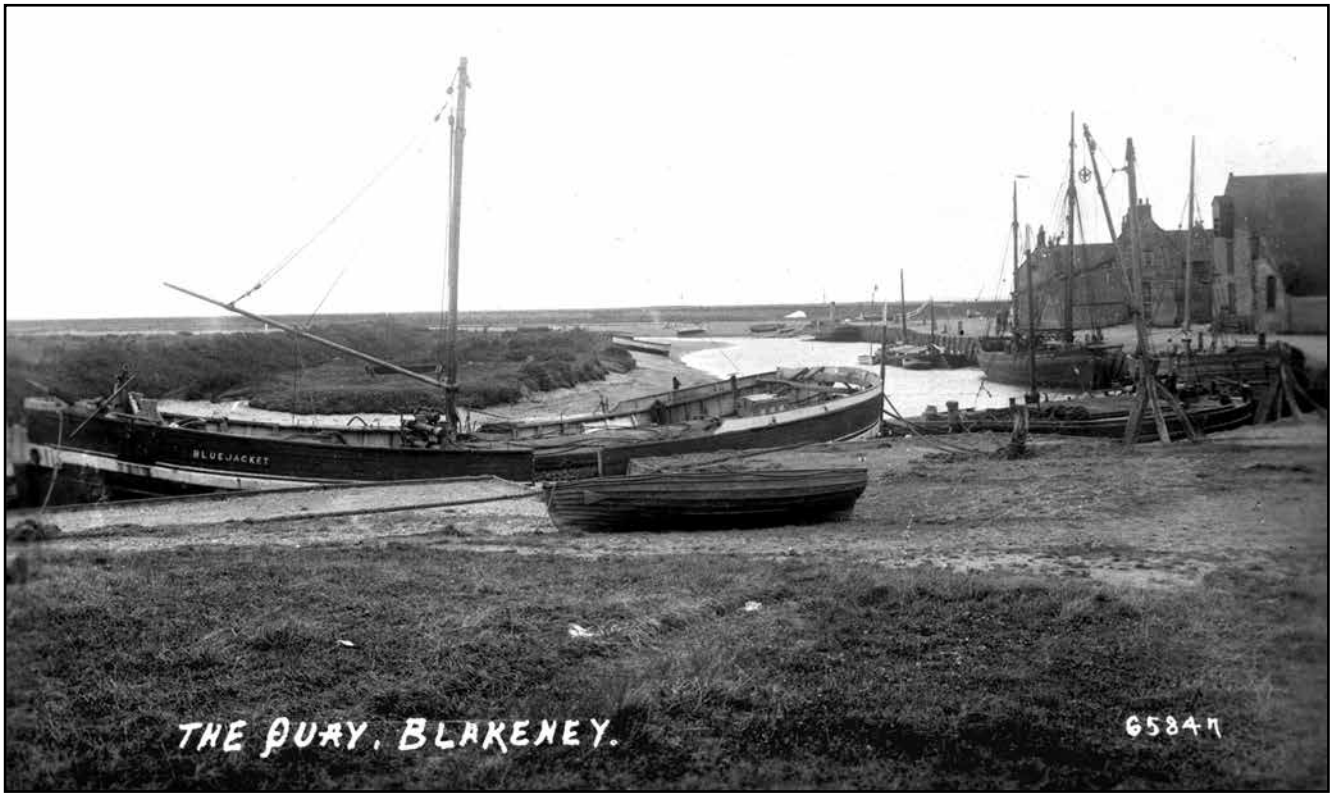
Jonathan's article in *Glaven Historian* 10 details the long and exacting process by which my father

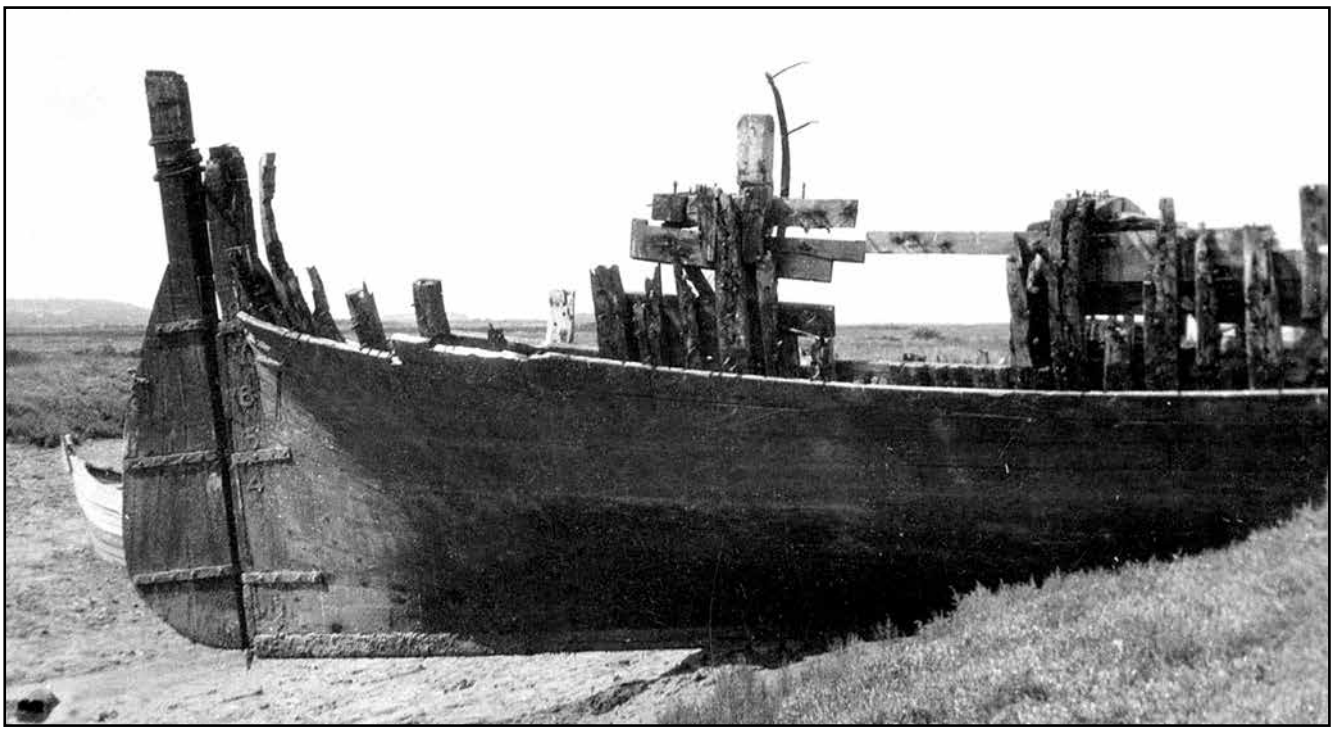
Fig. 1. Blakeney quay in the late 19th century with* Bluejacket *at the head of the queue

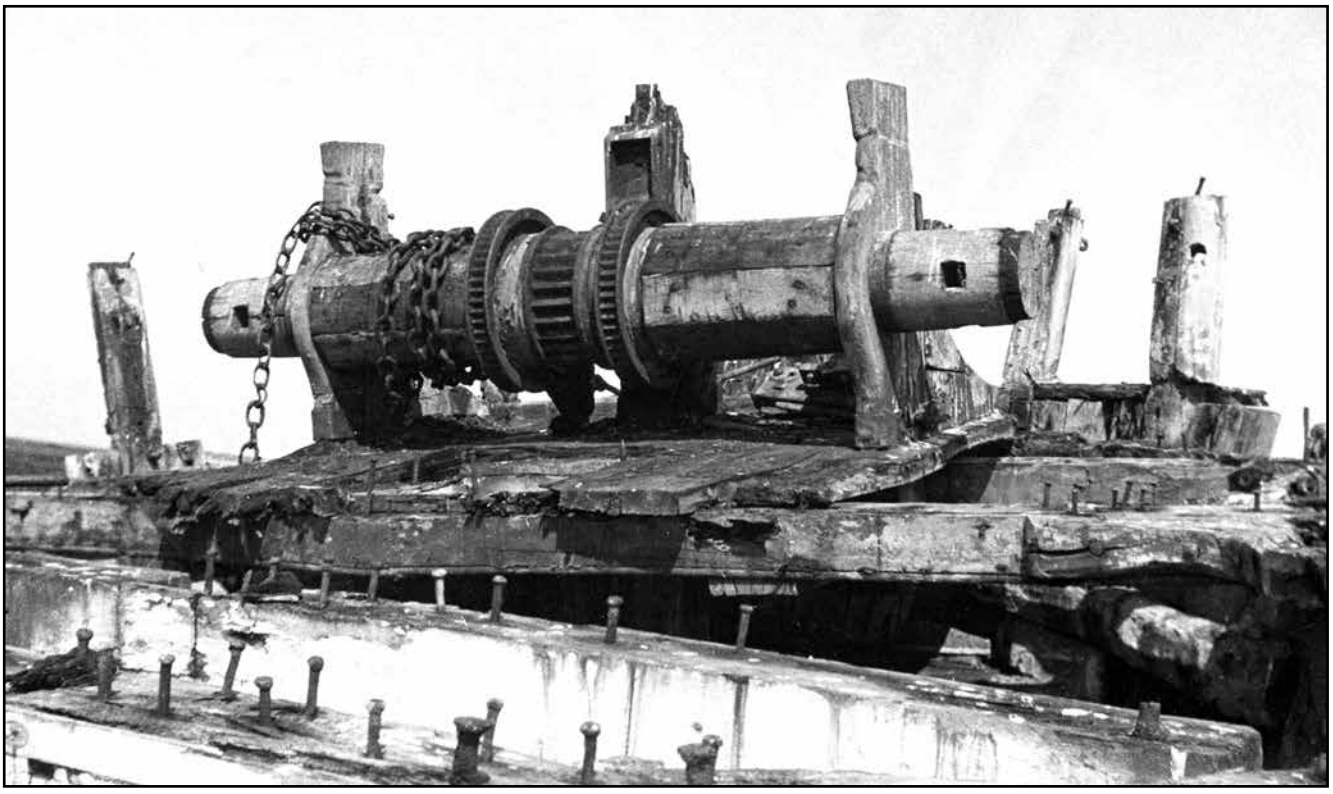
***Fig. 2. The West End of Blakeney quay, showing* Bluejacket**

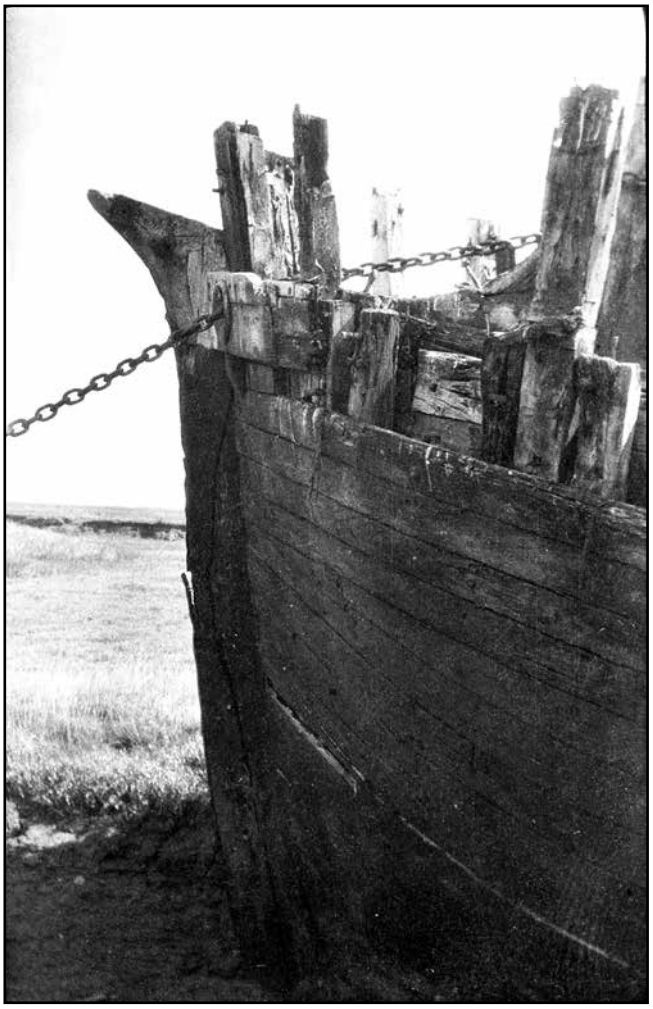
Fig. 3.* Bluejacket *in her final days as a houseboat

Fig. 4. Detail photo showing some constructional details. Her end is nigh


BLUEJACKET
THE QUAY, BLAKENEY.
G584 n







Figs. 5-7. Photographs by Peter Catling of Bluejacket as a houseboat, showing details of her construction

ended up with a lines plan and a model. Sadly I do not have a copy of the lines. It would appear that there is a copy still in existence with the David McGregor Plan Collection in the Brunel Collection in Bristol. McGregor and my father were close friends and they must have been a gift.

The rest of the photos taken by Peter Catling, record detail of construction.

The Charities of Christopher Ringer

Eric Hotblack

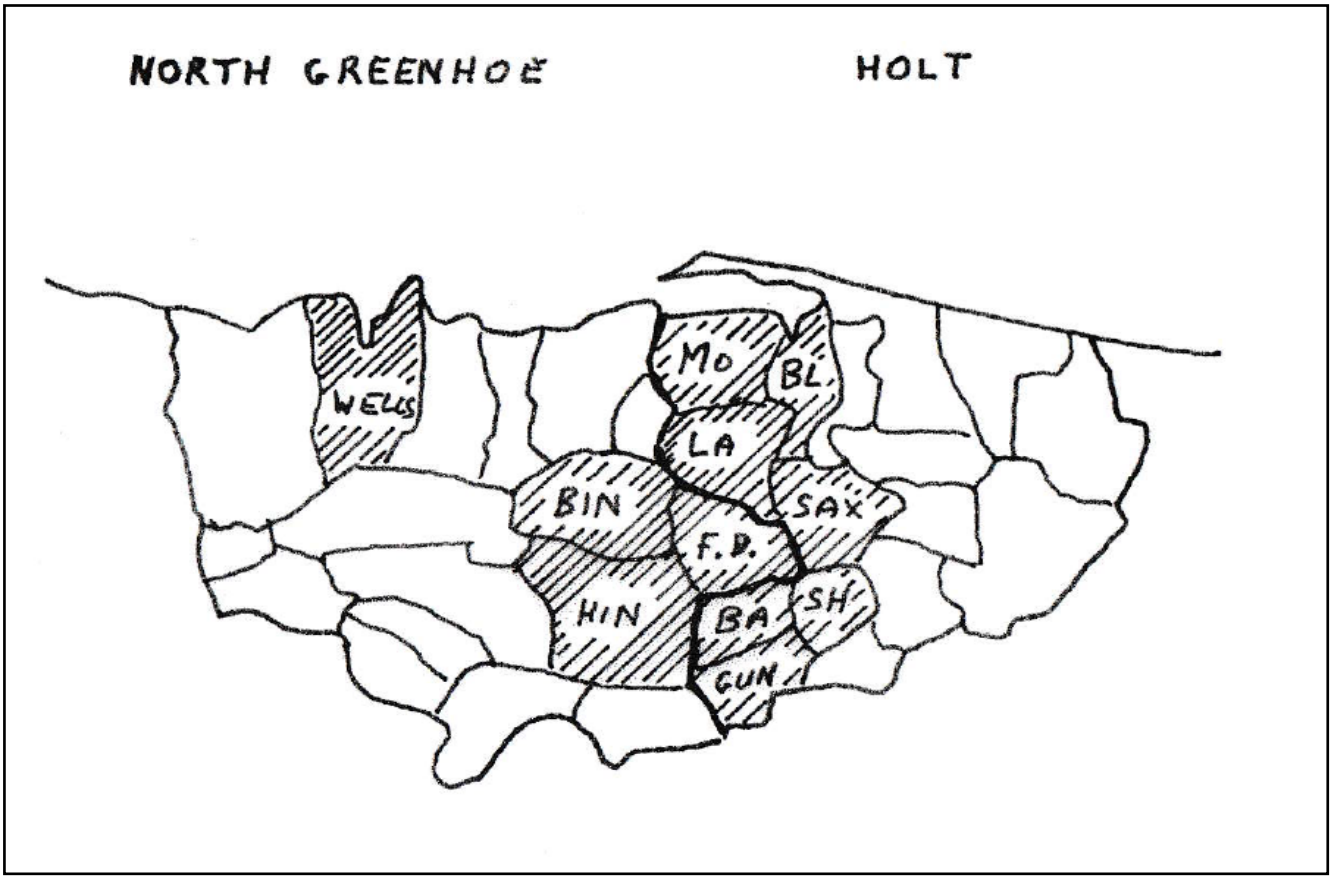


Fig. 1. The hundreds of North Greenhoe and Holt

Synopsis:
An article by Michael Medlar, about the Ringer Charities, was published in the Glaven Historian 15.[1] These were Charities 'for the poor' established by Christopher Ringer (died 1678, Field Dalling). Eric Hotblack has responded with additional information as follows:

Another source for extracting details about the Ringer charities can be found in Directories, such as White's *Norfolk* (1845).[2] Individual parishes are grouped together in their respective hundred. This makes it possible to check through each hundred, without having to look up every parish alphabetically.

By plotting, on a map, the parishes where the Ringer charities were active, it is obvious that those recorded by White's *Directory* are in a dense block, centred around Field Dalling. With the exception of Wells, the parishes are all close to the boundary between the hundreds of North Greenhoe and Holt (fig. 1).

When compared to Christopher Ringer's Will and Zachary Clarke's *19th Century Survey of Norfolk Charities*,[3] it is noticeable that the Ringer charities in the Parishes of Stiffkey, Warham and Wighton are missing from Whites *Directory*. Binham is included and has 3 acres, 2 rods and 23 perches of land which yield £3 15s in rent for 20 poor widows (not recorded by Clarke). The entry for Morston, records that 20s was left by Jno. Ringer in 1608, in addition to the 26s left by Chphr. Ringer in 1678.

In *Glaven Historian* 13, John Wright's article on Morston fieldbooks[4] records a cottage with a previous owner's name of 'Ringolphs'. Could this mean that Christopher Ringer's ancestors came from Morston? Clarke's entry for Morston records Rich. Ringer – Rich was sometimes used as an abbreviation for Christopher, in old documents, as well as for Richard. His entry for Warham records Christopher Ringer, late of Field Dalling, Woolcomber. Perhaps his connection with all the parishes surrounding Field Dalling is the wool trade, as the bequests in his will are for 'yards of blanket per annum'.

It seems as though individual parishes preferred to

Fig. 2. Bale church

invest their money in land and use the rental income from it to distribute amongst the needy. If the land was in their own village, everyone would know where it was and how well it was farmed; this proximity helped ensure it was more secure than a financial investment. In some cases, it may not have been possible to buy land in the parish and this might explain why five villages had money invested in financial transactions, rather than land.[5] Field Dalling's Ringer charity land is in the adjacent parish of Binham but is right on the parish boundary adjoining Field Dalling.

The parish of Bale bought land in Wells. They must have considered this to be rather remote and difficult to keep an eye on it. So, in 1774, they put up a wooden board in the Church nave (fig. 3). It measures 1.4m x 0.75m and states the area of their land and where it was; this time the benefactor was recorded as James Ringall.

In Field Dalling, a fuel allotment started in 1808 and was effectively doing the same thing as the Ringer charity – letting land and distributing the rental income within the parish. The two groups were amalgamated, probably in 1897, as this is the first account year of records that survive.[6] To this day, they still have separate charity numbers, in spite of having been run together for 120 years! The Ringer charity money was distributed in 'calico tickets' of 2s 10d each. Calico was a type of cloth made from unbleached cotton. Its name derived from Calicut in south-west India where it was produced as far back as the 11th century. By around

Fig. 3. Framed panel in Bale church

**Be it Remember'd
That Tho:'s Gat bought of
Lucy Clarke, with Bale
Town Money, which Sum
was Sixteen Pounds Ten
Shillings, A piece of Land
laying in Wells, in the 23:d
Furlong, the fourth Land
A R P
and contains 2 = 3 = 4, with
A Road throughit leading
from Wells to Walfingham
and now Lett to William
L S D
Nettleton at 2 = 12 = 6
Yearly, free from Taxes.
This Money was given by
James Ringall to Buy
Blankett to Clad the
Poor of Bale, many Years
Since. Anno 1774.**

1900, calico just meant cloth and the ticket could be used to purchase cloth or clothing locally. There must have been slightly different criteria for the two charities because there are more recipients of calico tickets than allocations for the full fuel allotment. The last record of calico tickets was in 1941 at 5s each![7]

It is remarkable that so many of the Ringer charities from 1678 survive. It seems that the ones that do survive invested their monies in land, whereas those that made financial investments did not. But the key to their survival is good management within the parish. In the long run, agricultural land will rise in value. However, as society advances, the value of agricultural produce has not risen as much and, proportionally, there is less money to distribute.

In recent years, several Ringer charities have amalgamated with other charities but the basic operation, of letting out agricultural land and distributing the rental income annually within the parish, remains.

Fig. 3b. The lettering from the framed panel in Bale church

Notes

1 Michael Medlar, 'Christopher Ringer of Field Dalling and provision for the poor of North Norfolk 1601-34', *Glaven Historian* 15 (2017) p. 48.

2 Zachary Clark, An account of the different Charities belonging to the poor of the County of Norfolk; abridged from the returns under Gilbert's Act to the House of Commons in 1786 and from the terriers in the office of the Lord Bishop of Norwich, 1811.

3 William White, White's *Norfolk Directory* (1845).

4 John Wright, 'Morston 400 years Ago', *Glaven Historian* 13 (2012), p. 10.

5 White, op. cit. n. 3.

6 Field Dalling Charity Minute & Account Book commencing Year 1897, in Trustees' Records.

7 Field Dalling Charity Trustees, book held in Trustees' Records.

Contributors

Diana Cooke is Secretary of the BAHS. She has degrees in Social History and Theology, along with a long term interest in genealogy.

Serica East has a degree in economic and social history and is a retired yacht broker, a career which maintained the family interest in matters maritime.

Nichola Harrison is a chartered surveyor at Cambridge Architectural Research and for 14 years was a councillor in Cambridge (at the City and then the County council).

Jonathan Hooton is Chairman of the Norwich Society and the author of The Glaven Ports (Blakeney History Group, 1996).

Eric Hotblack is a farmer and experienced fieldwalker.

Adrian Marsden is the Norfolk County Numismatist at the Castle Museum, Norwich, since 2002. He has a DPhil from Oxford University.

John Wright spent his early years at Stiffkey and became interested in local history while researching family roots in Blakeney and other Norfolk villages. He is a founder member of the Blakeney History Group (forerunner of the BAHS) and first editor of the Glaven Historian.