

PROCEEDINGS
OF THE
Cambridge Antiquarian Society,

OCTOBER 1916—MAY 1917

WITH

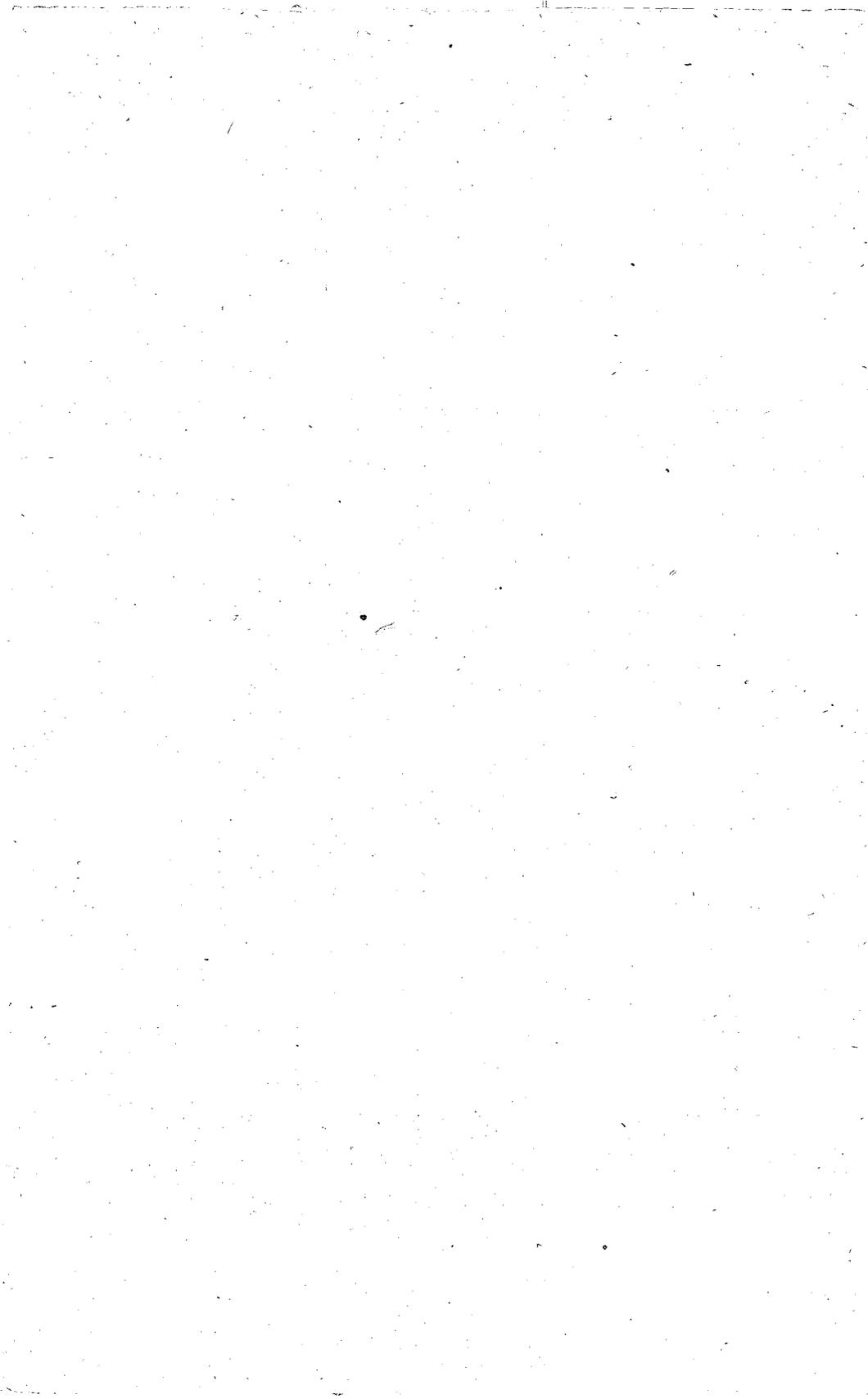
Communications
MADE TO THE SOCIETY
MICHAELMAS TERM, 1916, AND
LENT AND EASTER TERMS, 1917.

No. LXIX.
BEING THE TWENTY-FIRST VOLUME.
(FIFTEENTH VOLUME OF THE NEW SERIES.)

Cambridge:
DEIGHTON, BELL & CO., LTD.; BOWES & BOWES.
LONDON: G. BELL AND SONS, LTD.
1919

Price Ten Shillings net.

CAMBRIDGE ANTIQUARIAN SOCIETY
PROCEEDINGS AND COMMUNICATIONS



PROCEEDINGS
OF THE
Cambridge Antiquarian Society,
WITH
COMMUNICATIONS
MADE TO THE SOCIETY.

VOL. XXI.



NEW SERIES.

VOL. XV.

1916—1917.

CAMBRIDGE:

PRINTED FOR THE CAMBRIDGE ANTIQUARIAN SOCIETY.

SOLD BY DEIGHTON, BELL & CO., LTD.; AND BOWES & BOWES.
LONDON, G. BELL AND SONS, LTD.

1919.



CONTENTS

	PAGE
Report of the Council for 1916-17	1
Summary of Accounts for 1916	5
<i>Ordinary Meetings with Communications.—</i>	
Toilet Objects and Rings. Prof. W. M. FLINDERS PETRIE, M.A., F.R.S., F.S.A., F.B.A.	8
The Relations between Animals and Man on the Yenesi. Miss MAUD D. HAVILAND	9
Meeting in Museum of Archaeology and Ethnology	9
Cambridge Military Service, 1010 to 1908. C. E. SAYLÉ, M.A.	10
Egyptian Conceptions of Immortality. AYLWARD BLACKMAN, M.A.	10
“My last Trip to New Guinea.” A. C. HADDON, Sc.D., F.R.S.	11
Prehistoric Roads, with special reference to the Icknield Way and the Berkshire Ridgeway. HAROLD T. E. PEAKE	12
The Roof of Reims, and its Lessons. Rev. D. H. S. CRANAGE, Litt.D., F.S.A.	12
Side Lights on the Renaissance in Italy, with Musical Illustrations. E. J. DENT, M.A., Mus.B.	13
The Twelfth-Century Pulpitum or Roodloft formerly in the Cathedral Church of Ely, with notes on similar Screens in English Cathedral and Monastic Churches. Sir WILLIAM ST JOHN HOPE, Litt.D., D.C.L.	14, 19
Ancient Church Bells in Cambridge. Rev. A. H. F. BOUGHEY, M.A.	14, 74
The Problem of the Low Side Openings in English Churches. F. T. S. HOUGHTON, M.A.	14
<i>Seventy-seventh Annual General Meeting:—</i>	
Some Notes on Mediaeval Ships. H. H. BRINDLEY, M.A.	16, 83
Heraldry of King's Hall and Michael House. Rev. A. H. F. BOUGHEY, M.A.	16, 100
New Officers for the year 1917-18.	17
General List of Officers for 1917-18.	18

	PAGE
<i>Printed Papers :—</i>	
The Twelfth-Century Pulpitum or Roodloft formerly in the Cathedral Church of Ely; with some Notes on similar Screens in English Cathedral and Monastic Churches. SIR WILLIAM ST JOHN HOPE, Litt.D., D.C.L.	19
Ancient Church Bells in Cambridge. REV. A. H. F. BOUGHEY, M.A.	74
Some Notes on Mediæval Ships. H. H. BRINDLEY, M.A.	83
Heraldry of King's Hall and Michael House. REV. A. H. F. BOUGHEY, M.A.	100
Professor McKenny Hughes: his contributions to Archaeology. ARTHUR GRAY, M.A., Master of Jesus College	103
Purchases for the Museum, 1916 and 1917	105
Index	107

LIST OF ILLUSTRATIONS

PLATE		PAGE
I.	The Roodloft or Pulpitum, Ely, as restored from Essex's sketches	19
	Sketches by James Essex of parts of the quire screen formerly at Ely	21 to 24
	Ground plans of three typical forms of Screen	38
II.	Part of Browne Willis's plan of Ely Cathedral	52
III.	Inscriptions on the Bells of King's College	74
	Old Clochard at King's College	76
IV.	Ship, Bodleian Apocalypse, xiii c.	83
V.	,, Seal of Bergen, 1278	86
	,, ,, Fitzwilliam Museum Vegetius, 1270	,,
	,, ,, Seal of Richard Stewart, c. 1375	87
	Sail, Livre des Merveilles, late xiv c.	88
VI.	Ship, King Henry VI's Psalter, 1425-30	88
	,, ,, Bibliothèque Nationale Froissart	,,
	Sail, Breslau Froissart, c. 1470	89
	,, Hillesden-Church glass, late xv c.	,,
	Ship, Vatteville Church glass, 1528	90
	A Terrada, c. 1550	91
VII.	Ship, Les très belles heures de Notre Dame, c. 1416	93
VIII.	,, Cosmographiae Introductio, 1535	95
	,, ,, xvi c. sketch on earlier Greek MS., Cambridge	,,
	A Tartana, 1917	95
	Reconstruction of vessel on Greek MS.	96



SOME NOTES ON MEDIAEVAL SHIPS.

By H. H. BRINDLEY, M.A., President of the Society.

(Read at the Meeting on May 28, 1917.)

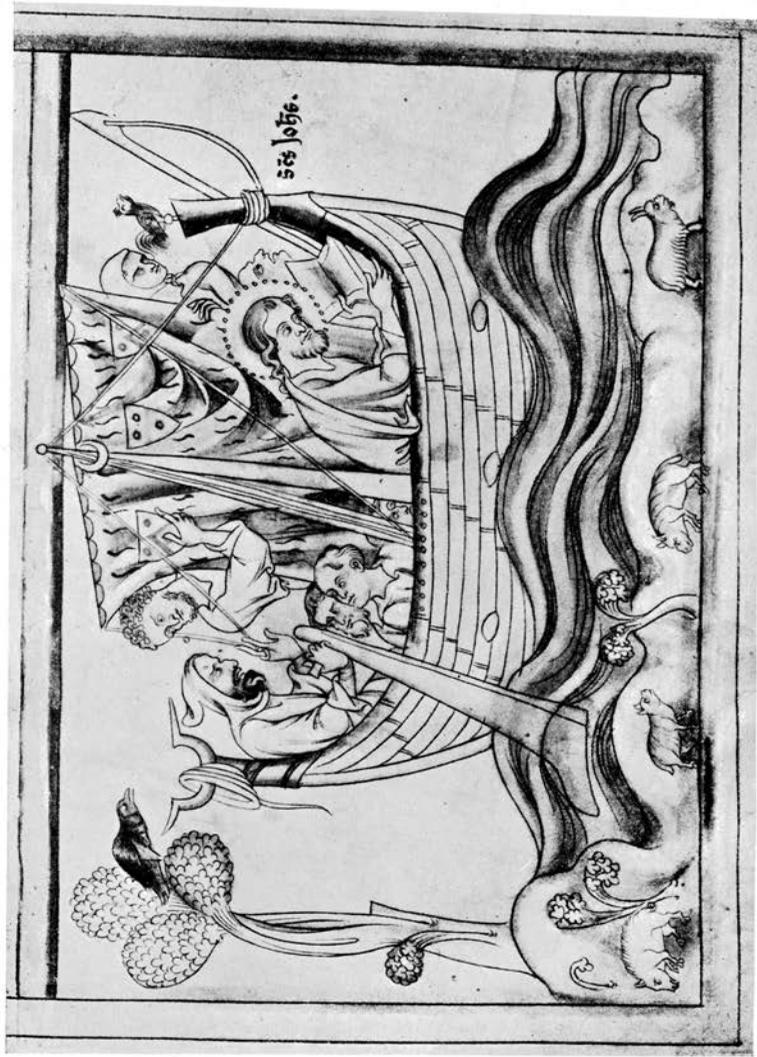
The following notes place on record some of the recently obtained evidence of interest to the nautical archaeologist in his endeavour to trace the lines of evolution of sailing craft and of certain fittings which have formed part of their equipment through many centuries. Any conclusions advanced must be regarded as no more than provisional. The non-existence of any mediaeval treatise on seamanship, the fact that so many artists, seal engravers and others who represented ships of their time had little nautical knowledge, and the frequent difficulty or impossibility of finding agreement between inventories and general references to ships and pictorial representations, are all difficulties which perpetually confront the enquirer. The only safe method is to accumulate evidence of all kinds and to endeavour to sift it judicially so as to separate convention from reality in the light of what we know is possible in the working of a ship. In this sense any example which comes to us from the Middle Ages possesses a certain value.

I. REEF-POINTS.

From the Middle Ages to the present day there have been two methods of reducing or adding sail, viz. :—

(a) The "bonnet," a strip of canvas which could be laced to the foot of a sail: in Tudor times it was common practice to have two bonnets, the lower one being known as the "drabber."

(b) Reef-points, *i.e.* short pieces of rope sewn into the sail on either side, by means of which a portion of it could be furled



and secured. According to the position of the reef-points this reduction of canvas is effected either at the foot of the sail or at its head.

In a paper on the St Christopher window (1465) in Thaxted Church published in the *Cambridge Antiquarian Society's Communications*, xv, 1910, p. 26, I have pointed out that though bonnets were in use in the Navy from at least 1338 (inventories of certain ships of King Edward III preserved at the Record Office) continuously to 1720, and still survive in certain local small craft, reef-points (of which the earliest known representation is the twelfth century seal of La Rochelle) fell into disuse during the first half of the sixteenth century and reappeared at the time of the Second Dutch War (1665). The puzzling disappearance for more than a century of so convenient a method of shortening sail has been further discussed by myself in *The Mariner's Mirror* (Journal of the Society for Nautical Research) for May, June and August, 1912, and a considerable amount of search has taken place for contemporary representations of or references to reefing by reef-points between 1500 and 1660. As a result a number of notes on the subject have been published in *The Mariner's Mirror* by various members of the S.N.R., and these all tend to the conclusion that reef-points did fall into disuse during the period mentioned; for it seems most unlikely that if reef-points were fitted from 1530 to 1665 we should not see them in pictures of the time or not find them referred to in works dealing with seamanship. So the subject still remains a puzzle. A considerable number of early instances of reef-points have been brought to light since I first called attention to the subject, so the list printed in 1912 needs much enlargement. At present the known mediaeval representations of what we may reasonably regard as reef-points more than anything else may be summarised as follows (where the nature of the representation is not stated it is a miniature):

Date	Example	Side of sail seen	Position on sail	Number of rows	Single or double	Reef-bands
XII century	La Rochelle Seal	after	lower half	three	single	present
XIII century	MS. français 403, Bibliothèque Nationale	after	all over	four	single	none
XIII century	Bodleian MS. Auct. iv. 17	after	all over	four	single	none
XIII century	Hastings Seal	after	lower two-thirds	three	single	present
1270	Marlay Add. MS., Fitzwilliam Museum, Cambridge	after	lowest third	two	single	none
1278	Bergen Seal	after	all over	four	single	none
1297	Dublin City Seal	fore	all over	three	single	present
1375	Richard Stewart's Seal	fore	all over	three	single	none
XIV century	MS. français, 2810, Bibliothèque Nationale	fore	upper half	one	double	present (probably)
(late)	Earl of Rutland's Seal	fore	all over	three	mostly single	none
1391	Harleian MS. 1319, fol. 14	after	all over	three	double	present in one ship
1399—1400	Harleian MS. 1319, fol. 18	fore	highest and lowest thirds	two	double	none
1410—1420	Bodleian MS. Misc. 264, fol. 218	fore	upper two-thirds	two, three, and ? four	single	none
1425—1430	Cottonian MS. Domit. A. xvii	after	or all over	two	double	present
XV century	MS. français, 2643, fol. 7, Bibliothèque Nationale	after	upper half	three, or perhaps four	single	none
XV century	The same, fol. 118	after	upper half	five and six	single	none
1465	Rye Seal	fore	all over	three	single	none
c. 1470	Thaxted Church glass	after	all over	roughly, six	single	none
late XV century	Breslau Froissart, II. fol. 48 ^v	both	all over	five	double	none
1493	Hillesden Church glass	fore ?	all over	three	double	none
c. 1505	"Compost et Kalendrier des Bergiers" (Paris), woodcut	after	all over	roughly, four	double	none
1523	"Kalendrier des Bergiers" (Rouen), woodcut	after	middle	one	double	present
1528	Villequier Church glass	after	middle	one	double	none
c. 1550	Vatville Church glass	after	upper half	two	double	present (probably)
	"Orbis Civitates Ferrarum," woodcut	fore	lower half	one and two	single	present

A certain number of the representations not known to me in 1910 were reproduced in *The Mariner's Mirror* (*loc. cit.*), and the present article is illustrated with others which have been found since 1912. On these some brief notes follow in the chronological order of the table.

The miniature in the Bodleian Apocalypse (MS. Auct. iv. 17) represents the voyage of St John to Patmos. I am indebted to Mr Falconer Madan, Bodley's Librarian, for permission to have a photograph made of this and of the miniatures of the embarkation of St John and his arrival at Patmos. No reef-points are shown in the former and in the latter only the bow of his ship is seen.

The Apocalypse in the Bibliothèque Nationale whose press mark is MS. français 403 I have been enabled to examine by the kindness of M. Léon Dorez, Conservateur des Manuscrits. It is contemporary with the Bodleian MS., and like it is English work of the later half of the thirteenth century. The miniatures of the two represent the same subjects and resemble each other so closely that they may be regarded as copies, though it is not possible to say which is the earlier work.

The manuscript of Vegetius's *De re militari* recently acquired by the Fitzwilliam Museum (Marlay Add. i) is a translation into Norman French followed by the Latin original written on 149 pages of vellum. It dates from 1270 and seems to have been written at Acre by an English or Anglo-Norman scribe for Queen Eleanor of Castile. At its close in a contemporary hand is written:

Mastre Richard votre clerc qui votre livre escrit
 En la vile Dacre sans nul contredit
 Wus pri ma dame pur celui que tuit le monde fist
 Ke vus ne le metez en ubli por chose ke hum vus dist
 Kar en la tere seinte vot fere sa penance
 Ke lui fu eniui[n]gte par bone repentance
 Fin que Deu de ces pechez lui face deliverance
 E pus apres vot retourner a vus ma dame en France.

I am indebted to Dr H. F. Stewart, Dean of St John's College, for the transcription of these dedicatory verses and to



Bergen. 1278.

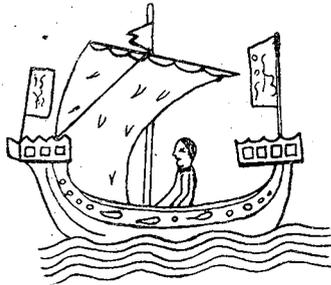


Fitzwilliam Museum Vegetius. 1270.

Mr S. C. Cockerell, Director of the Fitzwilliam Museum, for kind assistance in describing the manuscript. It seems possible that "Mastre Richard" was the physician to Prince Edward of Wales referred to in Patent Roll 49 Hen. III. The manuscript contains two miniatures, one of King Edward I as Prince of Wales and the sea fight here reproduced.

The seal of Bergen of 1278 bears a ship which was probably somewhat out of date in having its stem and stern pieces carved as beasts' heads. This subject and also other features of this ship and of those in the Bodleian and Paris Apocalypses I have discussed in "The Ships in the 'Cambridge Life of The Confessor'" and in "The Ship of the Seal of Paris" (*Camb. Ant. Soc. Communications*, xvii, 1916, p. 310 and xviii, 1917, p. 155).

For the seal of Richard Stewart (c. 1375) I am indebted to



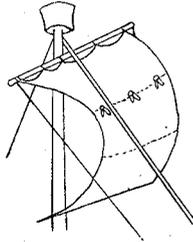
Seal of Richard Stewart. c. 1375.

Mr W. R. Macdonald of Edinburgh, who has kindly given to me a copy of the cast in his collection of Scottish seals.

All the above examples resemble one another in the reef-points being single and in being sewn in over most of the sail, thus agreeing with the Dublin seal (1297), the Earl of Rutland's seal (1391), the miniature of Marco Polo sailing from Venice in Bodleian MS. Misc. 264 (1410-1420), and the fifteenth century seal of Rye.

We now come to the earliest representation known to me of double reef-points. The text figure is a sketch from a drawing

by Mr Morton Nance (*The Mariner's Mirror*, June 1912, p. 174) of a miniature representing two ships under way in a "Livre des Merveilles" in the Bibliothèque Nationale (MS. français 2810)



Livre des Merveilles. Late xiv c.

of late in the fourteenth century. The points seem to be sewn into a reef-band, as in one of the ships in Jehan Creton's miniature of King Richard II's voyage from Ireland (Harleian 1319, fol. 14) of 1399-1400, and as in the La Rochelle, Dublin and Hastings seals of the twelfth and thirteenth centuries.

The Cottonian MS. Domitian A xvii in the British Museum is a Psalter written for King Henry VI when about ten years old. In the miniature of Our Lord stilling the Storm double reef-points in two rows and apparently sewn into reef-bands are represented in the upper half of the sail. The ship is interesting also in the details of its rudder. The hull, with fore and after stages, is of the "crescent type" usual in representations of the fourteenth and early fifteenth centuries.

The Bibliothèque Nationale "Chroniques sire Jehan Froissart" (MS. français 2643) is work of the second half of the fifteenth century. It contains several miniatures showing ships, and one of those in which reef-points are seen (fol. 7) I have reproduced in *The Mariner's Mirror*, August 1912, p. 239. This represents the arrival at Dover of King Edward II and his Queen, Isabel of France, in 1307; and in the same journal Mr Morton Nance has published sketches of ships in other miniatures of this MS. (June 1913, p. 183). The illustration in the present article reproduces the miniature of the Battle of Guernsey in August 1342 between the English Squadron and the Spanish and Genoese fleets (fol. 118). Single reef-points



King Henry VI's Psalter. 1425-30.

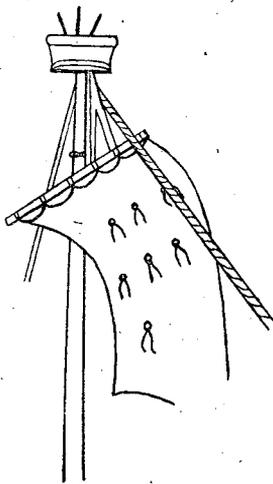


Bibliothèque Nationale Froissart, MS. fr. 2643. xvc.

in several rows are represented in the same manner as in Queen Isabel's ship. In notes by myself, written at the time of examining the MS. (*Mariner's Mirror*, June 1914, p. 215) I agreed with Mr Morton Nance in his conclusion that "the artist responsible for these pictures was evidently no sailor," but with all his obvious faults he has usefully given us evidence con-



Breslau Froissart. c. 1470.

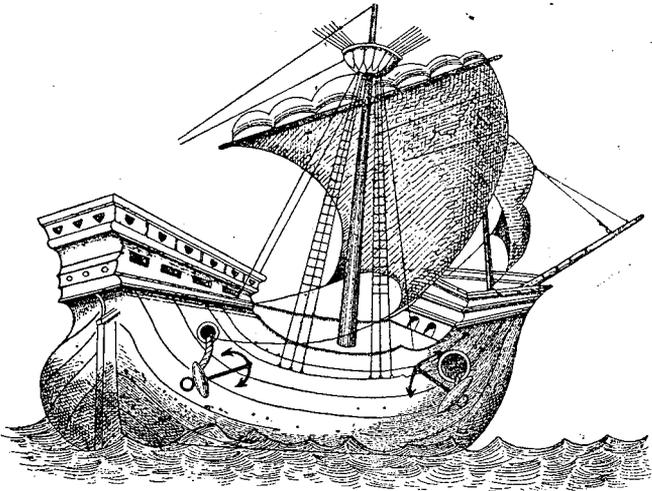


Hillesden Church glass.
Late xv c.

firming the conclusion from other representations that mediaeval reef-points were often sewn in rows covering most of the area of a sail. In a Froissart of about 1470 preserved at Breslau a miniature of the Battle of La Rochelle, in 1372, again shows reef-points sewn in all over the sail, but in this case the points are double.

In Hillesden Church, Bucks., which was rebuilt in the last decade of the fifteenth century, there is a window depicting events in the life of St Nicholas (for a description *v.* W. de Gray Birch, *Journ. Brit. Archaeol. Assoc.* 1888, p. 222). In the lights representing the episode of The Child and Cup of Gold and The Miracle of the Corn Sacks there are ships, and that of the former has double reef-points in three rows sewn in all over the sail.

In the south transept window of Vatteville church, on the left bank of the Seine about two miles below Caudebec-en-Caux, there is, as in Villequier church on the opposite bank, a representation of reef-points in glass of the early part of the sixteenth century. I have described these examples in a previous article (*Camb. Ant. Soc. Communications*, vol. xv, 1911, p. 31) and later in the work of my friend the Abbé Anthiaume, Aumônier du Lycée du Havre, *Cartes Marines, Constructions navales, Voyages de Découverte chez les Normands, 1500-1650* (Paris, 1916). I am indebted to him for much kind assistance extending over

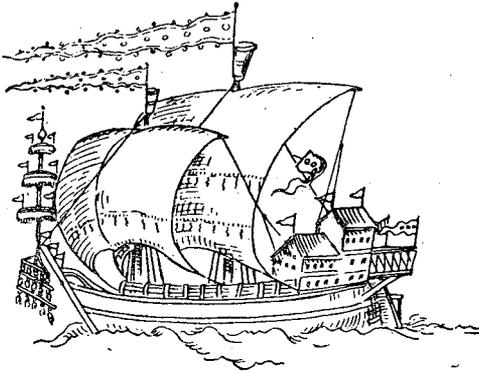


Vatteville Church glass. 1528.

many years in obtaining information as to mediaeval representations of ships in Normandy, and for now lending to me the block of my sketch for his book of the ship *La Roumaine* of the privateer Billes as she is depicted in the south transept window of Vatteville church. This sketch is of the ship only; in the glass we see the crew and on the poop the conventionally gigantic figure of St Clément by which the artist displaced the mizen mast the ship evidently carried, an artistic expedient which explains the incompleteness of the back-stays. The double reef-points and a suggestion of reef-bands are seen in

the upper half of the mainsail. In the beautiful window of 1823 in Villequier church in which the chief picture is a naval combat one of the ships has similar double reef-points.

The latest example of early reef-points known to me is of about the same time as the Norman glass, for it occurs in Braun and Hohenburg's *Orbis Civitates Terrarum*, published at Cologne. Of this work there were several editions, the first



A Terrada. c. 1550.

bearing the date 1573. I am indebted to the Council of the Society for Nautical Research for permission to reproduce Mr Morton Nance's sketch of a "Turkish" *terrada* or *gelve* from the woodcut in this Cologne picture book. Allowing for the time occupied in collecting the drawings we may safely call this curious *terrada* a ship of about 1550. However exaggerated and fanciful some of her ornamental and other features may be there can be little doubt that reef-points are intended by the lines of short ropes on her fore and mainsails. This example from eastern waters must be accepted with some reserve in the absence of knowledge as to how the sixteenth century authors of *Orbis Civitates Terrarum* procured and reproduced their pictures. It is not impossible that the reef-points were introduced for artistic effect from sources much nearer Cologne than the Gulf of Aden and Levant, though the care as to the details of the ships represented renders the *terrada* worth mentioning.

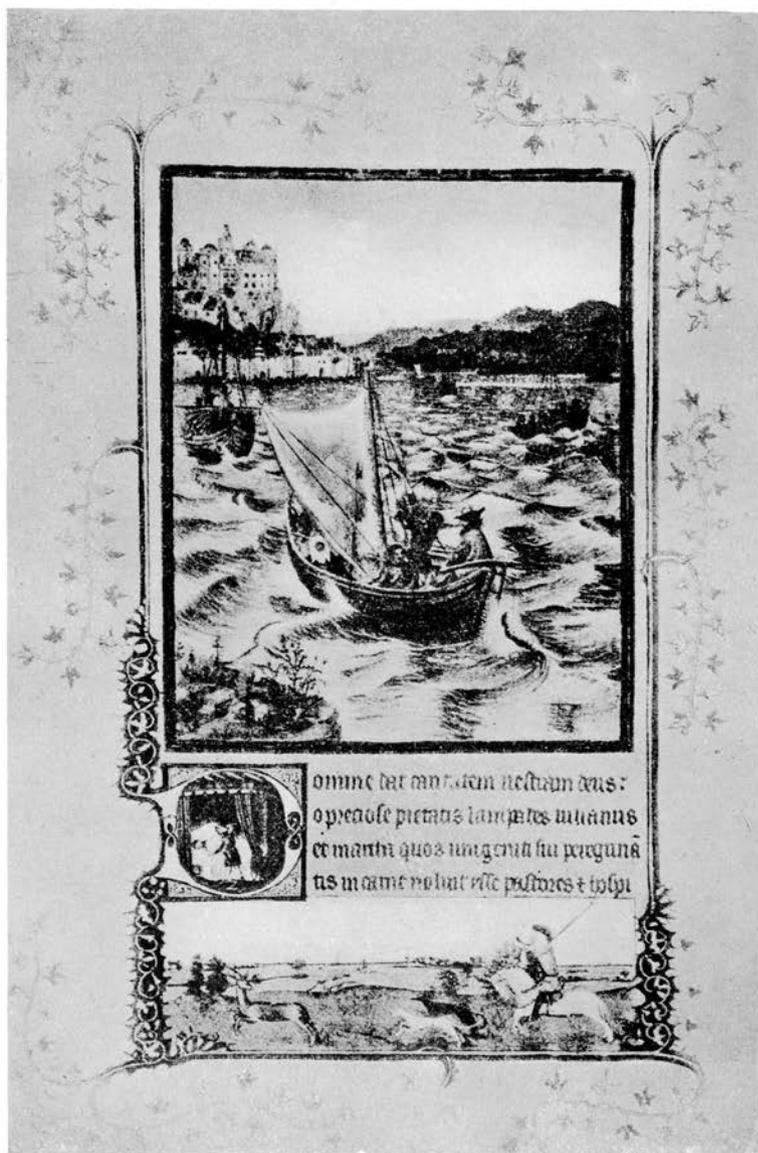
With the continuance of this puzzle of the disuse of reef-points in large vessels of the northern seas at least for more than a century it is natural to enquire if the tradition of reef-points was maintained in smaller craft. As to this I have to thank Mr Morton Nance for some suggestive notes. He is inclined to think that square-sailed fishing craft are very likely to have continued the use of reef-points when they were discontinued in large vessels, though pictorial evidence of a reliable kind is wanting. Mediaeval reef-points are sometimes represented all over the sail, sometimes near its head only, and again, sometimes near its foot only. No doubt many representations still remain undiscovered, but in those we know the position on the sail does not exhibit any chronological grouping. Modern reef-points, *i.e.* those since the fitting was revived, are in the upper portion of a square sail: those of fore-and-aft sails are in its lower portion. The latter may be neglected, as jibs were fitted in ships of the Royal Navy only as late as 1705 and it seems likely that the reef-points of lateen sails were introduced as imitations from square sails at a comparatively late date. As regards square sails, Mr Nance calls my attention to Dutch fishing boats having reef-points near the foot of the sail, while Norwegian boats sometimes carried a row of reef-points near the head of the sail as well as the customary rows near its foot. He also remarks on the Lanvéoc fishing boat, a primitive Breton type, which still carries a row of reef-points near the head and two or three rows near the foot, the latter being very possibly inherited from her ancestors of a time before reefing at the head of the sail, *i.e.* modern ship fashion, was introduced. Mr Nance is inclined to look upon the sail reefing below as a survival of the ancient method of northern European waters, and such examples as square-sailed Norwegian boats and the Lanvéoc craft as transitions to the modern fashion of reefing a square sail above. Reefing below has survived in fore-and-aft sails by reason of their cut rendering reefing above impossible.

II. SPRIT-SAILS.

In *Les très belles heures de Notre Dame*, done for Jean de France, duc de Berry, the miniature representing The Voyage of St Martha and St Julian is among those regarded as the work of Hubrecht van Eyck in 1416-17. The Saints' "ship" is a fore-and-aft spritsail boat about 20 ft. long and is running free with the sail guyed out to port. In this, by about a century the earliest representation of the fore-and-aft spritsail known to nautical archaeologists, the sail and its fittings are very modern in appearance; thus there are sheet, a guy from the head of the sprit, and the lower half of the luff of the sail seems to be laced to the mast. Unfortunately the original no longer exists, as it perished in the disastrous fire at the Turin Library, and photographic reproductions are not sufficiently clear as to details. The figure of St Julian prevents our seeing whether the sprit is fitted with a snotter. This picture, like so many others in this manuscript, is distinguished by a freedom of treatment far in advance of its time and is of special interest to nautical archaeologists as an instance of a useful type of sail and its gear persisting without any essential modification through many centuries.

III. EARLY SQUARESAIL GEAR.

The Fitzwilliam Museum possesses a copy of Mauro Fiorentino's *Cosmographiae Introductio*, which was published at Venice in 1535. The title page, here reproduced, gives a good example of square sails fitted with lines for setting the foot in addition to the sheets at the clews. Thus the spritsail has two such additional ropes, the main topsail one, and the mainsail no less than three. Such ropes, which were sometimes fitted with blocks to form tackles and sometimes were single lines, enabled the foot of the sail to be bowsed down towards the mast and therefore to set better in certain conditions of wind. Mr Morton Nance (*Mariner's Mirror*, Sept. 1913, p. 277) suggests that such



Les très belles heures de Notre Dame. c. 1416.

a fitting is a "bowge," as in Bailey's Dictionary (1735) the term is defined as "a rope fastened to the middle of the sail, to make it stand closer to the wind." In the *New English Dictionary* the word is stated to be a variant or obsolete form of "bouge," meaning "swelling," "wallet," and (later) "bilge."

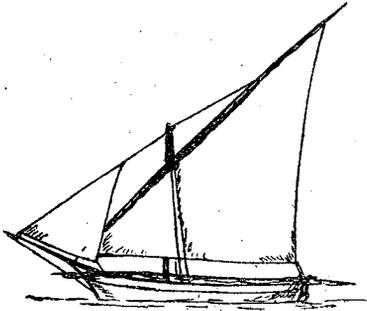
Mr Geoffrey Callender (*Mariner's Mirror*, Dec. 1912, p. 372) suggests that bowges are a relic of "bilobular" squaresails of the Mediterranean depicted by fifteenth century artists, huge balloon-like sails with a double "belly" by which mariners, "like the legendary heroes of the Greek myth, sought to imprison the breeze in a windbag dependent from their towering mast." Such sails must have been very unmanageable and "at best can have been suitable only for the Mediterranean and only possible there." Their use seems to have extended barely beyond the close of the fifteenth century. Pinturicchio's "The Return of Ulysses" in the National Gallery and a panel painting at Oxford (in the Ashmolean Museum) by an unknown Italian master of the fifteenth century, representing St Nicholas of Bari aiding a stormdriven ship, are typical examples of bilobular sails reproduced by Mr Callender. An earlier representation (1366) in the Biblioteca Marciana at Venice is copied in Cesare Levi's *Navi Venete* (Venice, 1892), disegno 98. In the Ashmolean picture the upper part of a bowge is seen, and also in a ship on a mappamundo of 1459 preserved in the Ducal Palace at Venice (C. Levi, *op. cit.*, dis. 9). In the form of a tackle the bowge is depicted in detail in Carpaccio's "The Departure of the Bride and Bridegroom" in the St Ursula series of paintings in the Accademia, Venice, and also in "The Three Ships at Sea," a print in the Albertina Museum, Vienna, reproduced in *A Florentine Picture Chronicle*, edited by Sir Sidney Colvin. This print dates almost certainly from the second half of the fifteenth century.

The interest of the ship in *Cosmographiae Introductio* is the profusion of bowges with which her sails are fitted—I know no other representation with so many. Whether the mainsail is bilobular is not clear, though there is a suggestion of this in the manner in which it is depicted. During the sixteenth

century bowges seem to have been almost always fitted to the foot of the lowest squaresail or course, as a rule to the foot of a bonnet, and occasionally to the foot of an under-bonnet or drabber. Hauling on a bowge fitted to an ordinary squaresail would flatten it, but in the case of a squaresail of the balloon-like "bilobular" cut such bowging down would increase its belly, and thus we have the extraordinary appearance of the canvas depicted by the Florentine and other painters of the fifteenth century. Bowges seem to have died out during the seventeenth century in all large craft, and at the present day they survive only on the great mainsail of a *Nordlands jagt* and perhaps in one or two other comparatively small craft.

IV. A SIXTEENTH CENTURY TARTANA.

This title must be confessed a guess as regards both period and identification of the vessel. To every voyager in the western Mediterranean the one-masted craft with lateen mainsail and bowsprit carrying a jib, the *tartana*, is familiar in her capacity as a fishing boat or local trader. I have to thank Mr Alan H.



A Tartana. 1917.

Moore, of Trinity College, Surgeon R.N., for the drawing of a present day tartana here reproduced, which he has made for comparison with a sketch on the margin of a single folio of a Greek manuscript possessed by the University Library (MS. Add. 1880. 2). The sketch is by a much later hand than the

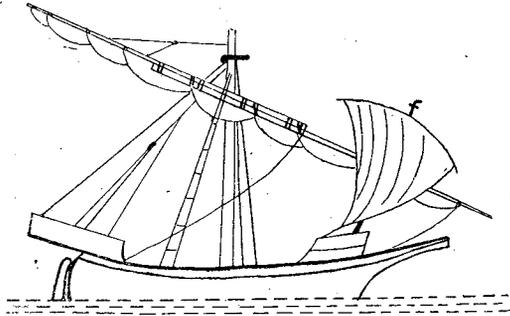


Cosmographiae Introductio. 1535.



University Library, Cambridge. MS. Add. 1880-2.
xii—xiii c.

MS., which is at least as early as the thirteenth century. I am indebted to Mr Charles Sayle of St John's College for calling my attention to this very interesting record of a Mediterranean vessel, which may be ascribed provisionally to the sixteenth



Reconstruction of vessel on Greek MS.

century. The photograph of the original may be compared with a reconstruction of it by Mr Moore. For preparing this for reproduction, as well as for several of the other text figures, I have to thank Miss Maud D. Haviland, Hon. Mem. B.O.U.

Mr Moore is inclined to agree with me that the vessel bears the mark of the sixteenth century, and that her rig is essentially that of a tartana, an old Mediterranean type. The great length of the yard, which is characteristically Mediterranean in being made up of two spars fished together, certainly suggests that the sail is a lateen and not a squaresail. On the other hand, Mr Moore points out that there are difficulties in identifying the vessel as a tartana in the modern sense. Thus, she has a forecastle and poop, which indicate a craft of some size, as does the poop of her boat lying astern. In these features of her hull and in the spar (whether a foremast or bowsprit will be discussed later) raking over the stem and carrying a sail, we are reminded of a ship painted by either Giuseppe or Jacopo Avanzi, and therefore work of the second half of the fourteenth century, in the Chiesa degli Eremitani at Padua. This ship is reproduced by Cesare Levi, *op. cit.*, dis. 102. It is however doubtful whether her mainsail is a lateen or a squaresail, and there is no bowsprit.

A tartana as we know her carries a bowsprit on which is set a jib, while in the sketch on the Greek MS. the spar forward carrying a sail is like a small foremast raking much over the stem, such as we see in Avanzi's painting. Unfortunately this sail is not very distinct. Mr Moore remarks on its resemblance to a lateen rather than to the square cut spritsail which would be carried by a sixteenth century vessel, if the spar is a bowsprit and not a foremast. He points out also that this spar comes through the roof of the forecastle, whereas, in a vessel with beakhead and forecastle as this is, a bowsprit comes through the fore bulkhead of the latter, and not through its roof. Again, a cross on the head of a spar such as we see in the sketch suggests a mast in any drawing made before say 1550. Now it is not always easy to distinguish between a bowsprit and a foremast with great forward rake in Mediterranean vessels. Just outside the Mediterranean we have the same difficulty with the familiar Tagus fishing boat the *moleta*, which carries a spar stepped far aft of the stem with great forward rake, bearing jib-like sails above it and a squaresail resembling a spritsail below it (cf. the *moleta* of 1861 sketched in H. Warington Smyth's *Mast and Sail in Europe and Asia*, p. 256). Sometimes, however, the typical profusion of sails carried by the *moleta* is increased by a true bowsprit fitted under the stem head, thus rendering the raking spar above it a true foremast, though it still carries the "spritsail," to which another one under the bowsprit is supplementary (cf. R. T. Pritchett, *Shipping and Craft*, drawing on p. 95). In the Mediterranean itself we still see *barcas* in the Rhone estuary with foremast, having great rake over the stem and setting a lateen sail, while the main and mizen masts are stepped vertically and square rigged (cf. R. C. Leslie's drawing on p. 30 in his *Old Sea Wings, Ways, and Words*). Again, the felucca-like craft sketched on p. 16 of the work just quoted shows a foremast with marked forward rake. I have quoted these examples of difficulty in drawing a distinction between foremast and bowsprit in local craft of the Mediterranean as I have been puzzled when meeting them at sea, and there are other more eastern types with which I am not familiar presenting the same difficulty. So we may leave it an open question as to

whether the sketch on the Greek MS. shows a raking foremast with a lateen sail or a bowsprit carrying a spritsail. There is in Keble Chatterton's *Fore-and-Aft* (p. 35) a copy of a drawing in the folio of plates illustrating F. Hennik Af Chapman's *Architectura Navalis Mercatoria*, which was published at Stockholm in 1775, representing a tartana which bears much resemblance to the vessel of the Greek MS. In this, however, the forward spar has less rake and from its greater size should certainly be regarded as a foremast. It bears a lateen sail whose tack is made fast to a long beakhead. Such a design leads us to the question of what exactly a tartana is. As we know her to-day she is a comparatively small decked craft, one-masted, with lateen mainsail and carrying a steeved bowsprit on which is set a jib. On the Côte d'Azur a topmast is sometimes added to carry a topsail in light winds. All modern authors give *tartana* as a craft having the above features and in particular the single mast carrying a lateen sail. So, taking a few nautical dictionaries at random, is the tartana defined by De Saverien (1781), Falconer (1789), Lescallier (1799), Gocvic and Jansen (1844) and Admiral Smyth (1867). Jal (*Glossaire Nautique*, 1848) is in agreement with the above authors, but quotes Pantero-Pantera's *L' Armata Navale* of 1614 to the effect that "au xvi^e siècle, la Tartane avait trois voiles et quelquefois plus; la maistre, le trinquet, et un petite voile derrière," which makes her at least two-masted. Again, Alethea Weil (*The Navy of Venice*, p. 341) points out that *Tartana da guerra* and *Tartana grossa* were names for armed three-masted vessels in use from the fifteenth to the seventeenth centuries, and that these had nothing in common beyond name with the *Tartanellé peschereccie*, which she defines as two-masted lateen craft of the period above mentioned. Mde Weil does not give authorities in detail for these statements, but there is no doubt that *tartana* has at different times denoted more than one type of vessel, as is the case with many other names to which we attach a restricted significance at the present day. The *Tartanella peschereccia* was probably much the same as Chapman's two-masted tartana referred to above.

So we may provisionally call the sketch on the Greek MS. an early tartana, leaving it an open question as to whether she has a bowsprit carrying a spritsail or a very raking foremast on which is set a small lateen. Either would be possible in the sixteenth or seventeenth century. Mr Moore regards the lines from the mast head to the after part of the main yard as brails, and these they seem to be. The fittings of the mast-head suggest that a topmast is fitted, and that it is either lowered or carried away; though the cross-tree-like ink stroke forward of the mast head may indicate only a support for a flagstaff. There are thus several puzzles in the little sketch, which seems to be the work of someone who had a liking for ships and knew something of them.

CONTENTS

OF PROCEEDINGS, No. LXIX.

VOL. XXI. (NEW SERIES, VOL. XV.)

	PAGE
Report of the Council, 1916-17.	1
Summary of Accounts for 1916	5
Ordinary Meetings with Communications	8
New Officers for 1917-18	17
General List of Officers for 1917-18	18
<i>Printed Papers:—</i>	
The Twelfth-Century Pulpitum or Roodloft formerly in the Cathedral Church of Ely; with some notes on similar screens in English Cathedral and Monastic Churches. SIR WILLIAM ST JOHN HOPE, Litt.D., D.C.L.	19
Ancient Church Bells in Cambridge. Rev. A. H. F. BOUGHEY, M.A.	74
Some Notes on Mediaeval Ships. H. H. BRINDLEY, M.A.	83
Heraldry of King's Hall and Michaelhouse. Rev. A. H. F. BOUGHEY, M.A.	100
Professor McKenny Hughes: his Contributions to Archaeology. ARTHUR GRAY, M.A., Master of Jesus College	103
Purchases for the Museum, 1916 and 1917	105
Index	107