The English Fishing Industry in the Sixteenth Century:
The Case of Great Yarmouth

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I

For all the pride which it engendered among contemporaries, who saw in the Tudor fisheries a nursery for English seamen and even a hallmark for the national identity, the fishing industry in the sixteenth century has received scant attention from English historians. This neglect has been doubly unfortunate. On the one hand, it leaves us in general ignorance of the industry itself: its organization, personnel, productivity, and economic importance in both national and regional terms. On the other, it has denied us the opportunity to observe a tradition-bound industry of considerable antiquity as it faced the political, economic, and technological changes of the post-medieval era.

The format of an essay cannot reasonably encompass a detailed study of a major industry, but the selection of a particular case for study can at least present a helpful paradigm for the whole, and fill part of the void in the existing literature. The fishing industry of Great Yarmouth seems an appropriate choice. The fact that herring collected off the mouth of the River Yare each September for as far back as man can remember has made the association of Yarmouth and fishing as old as it is logical. Fishermen plied those grounds from at least the sixth century, making the town one of the earliest recorded fishing centres of Northern Europe, and well before the Conquest townsmen had dedicated their parish church to St. Nicholas, patron of fishermen. Throughout the Middle Ages Yarmouth stood alone as the chief supplier of herring, a dietary staple to the English market, and ranked near the top of the European fishing industry.

With the herring early established as the chief catch, it was only a matter of time before the industry diversified its interests. By the end of the fourteenth century Yarmouth fishermen ventured from Iceland to the North Sea and down to the English Channel for a full

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range of cod, ling, and other commercial fish, as well as for their traditional quarry. In the following century, however, the fishing industry throughout Europe witnessed dramatic developments in both the techniques of fishing and the relative strength and internal centralization of the maritime powers. The effect was both deleterious and sustained for Yarmouth and other English ports, and virtually all of them entered into a period of stagnation which spanned the century of our concern and endured well into the next.

In this essay, I will explore the case of Yarmouth's fishing industry as a paradigm for the whole fishing industry of the realm in two respects. First, I will describe the operation of the industry itself: its seasonal rhythm, financial and industrial organization, personnel, and relations with government. Second, I will explore the reasons for the post-medieval slump in the industry, and discuss some of its economic and political implications. It should also be noted however that, as no paradigm can embrace all regional variations, Yarmouth's fishing industry is most illustrative of the traditional fisheries of European or North Atlantic waters, as opposed to that newer enterprise which first began to focus on the Grand Banks of Newfoundland in this same period.

II

As one might expect, the seasonal habits of the fish themselves imposed a characteristic annual cycle on the fishing industry. The cod and ling first made their appearance off the coast of Iceland in mid to late March, and within a few weeks they were to be found in large numbers throughout the vast triangular area defined by the points of Iceland in the northwest, the North Cape at the tip of Norway in the northeast, and the north central area of the North Sea, from about the latitude of Aberdeen, to the south. These grounds proved productive throughout the spring and early summer, with those around Iceland lasting even until August.¹ With a season of this length an industrious master and crew could well make two voyages to the North Sea in a single year, and records of late Elizabethan and early Jacobean voyages indicate that Yarmouth men did this regularly, with anywhere from thirty-one to eighty-five boats in each fleet in those years for which records survive.²

¹Robert Hitchcock, A Political Plat for the Honour of the Prince, (1580; reprinted in Edward Arber, An English Garner (1907), II: 156-7).
²Borough of Yarmouth Audit Books, kept at the Norfolk and Norwich Record Office, [hereafter N.N.R.O.]. MS. C27/1, passim.
With the rigours of the Iceland and North Sea voyages behind them, the fishermen of Yarmouth turned with relief to the appearance of herring in mid to late summer. The chief herring season began about the end of August and ran until Christmas, with the best catches throughout most of this time right off the shores of East Anglia. Even this season might be stretched by taking advantage of an earlier run off the northern coast of Scotland from the end of June, but if these "summers," as they were called, looked tempting when the first catches of the year came to port, their extremely fatty condition made proper curing difficult, and altogether precluded the repacking process applied to the bulk of Yarmouth herring.  

When and where to fish, as well as many other decisions regarding the fleets, were made by the owners; this group warrants further discussion. Up to about the fifteenth century, fishing craft throughout England were more often than not owned by a single individual. It was also quite common for such an owner to serve as his own master at sea. By the sixteenth century, however, rising costs had rendered single ownership anachronistic in most areas. The growing diversity in the economic interests of shipowners, and the facile combination of fishing and trade, made it even less likely that an owner could spend several months of each year at sea. Thus, for example, in the borough of King’s Lynn, probably the second largest East Anglian fishing port, all five of the largest (65-100 ton) Iceland ships listed in a census of 1565 were multiply owned: two by joint ownership, two by three owners, and one by four.  

The fishing industry at Yarmouth seems to have been characterized by only the second of these tendencies. Mastership by the owner by the sixteenth century was common only in those small cobles whose crew of three or four generally fished within a few miles of shore, and only for a few months of the year.  

For the most part, however, Yarmouth proved an exception to the practice of multiple ownership. The 1565 census survey shows all seven Yarmouth ships of the same type were individually owned, and two of them by the same man.  

The explanation for this apparent financial independence probably lies largely in the greater degree of organization and the economic and political support provided by the borough itself. This permitted owners to cope more successfully with a variety of

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1Hitchcock, A Political Plat, pp 157-8; Simon Smith, The Herring Busse Trade . . . (1641), pp 6-7.  
2Public Record Office (P.R.O.), S.P. 12/38, fols. 39v-40r.  
technological problems as well as foreign competition and the pressure of outside investment. Such pressures could be extremely intimidating to a local fishing community. In Aldeborough, for example, a foreign interloper had been so successful that even the advowson to the parish church fell to a London fish dealer by the Elizabethan period, while in Elizabethan Plymouth assistance had to be sought from the privy council to enable local fishermen to resist intervention and competition from outsiders.

This is not to suggest that even the single owners of Yarmouth ships were anxious to foot the entire bill for their voyages, however, for various devices were employed there as elsewhere to share expenses. This was frequently done either in the form of a "charter party" for fishing, or a combination of fishing and trade on the same voyage, or by a simple agreement for sharing costs and profits among owner, master, and members of the crew. The charter party was essentially a mercantile device adopted to meet the requirements of a fishing venture. It was particularly well suited to the Iceland voyages, where fishing and trading were so readily combined that it is often difficult to tell when one began and the other left off.

When the owner chose to share expenses and profits with the master and crew—evidently a much more common form of organization at Yarmouth—the terms of the covenant were standardized by the Yarmouth Borough Assembly. Each party to the agreement supplied a pre-determined amount of tackle, and when most of the catch had been sold and expenses met, the remaining receipts were divided into shares or "doles." Each contributor of supply then received a pre-determined portion of the doles, along with small portions of the catch itself, left unsold for purpose. In the standard contract pertaining at the turn of the seventeenth century, the master received a dole and a half plus one barrel of fish for a contribution.

1Historical Manuscripts Commission, Various Collections, IV (1907), p. 301.
3A good example of the charter party may be found in the published records of the Court of Admiralty for 1531. In this instance a shipowner named John Gilberd, whose home port is not identified, chartered his ship to a London cap merchant named John Maynard. For his part, Gilberd agreed to fit out his ship in its entirety, and to provide a master and an able-bodied crew. Maynard agreed to spend several weeks fishing with the ship off the coast of Ireland, and then to sail for Bordeaux to trade his catch, possibly along with other cargo, for 57 tons of wine. The owner was to receive 22s. per ton of the wine, while the merchant-fisherman kept the remainder. R.G. Marsden, ed. Select Pleas in the Court of Admiralty, (Selden Society, VI, 1894), pp. 35-8.
4By the standards of measurement employed in the English fishing industry at this time, 1 barrel = 32 gallons; 1 last = 12 barrels or between 10,000 and 13,200 herring.
of eight lines, three lead weights, and four dozen hooks; the mate, 1
1/4 doles plus one barrel of fish for a supply of six lines, two leads,
and 2 1/2 dozen hooks; and each crew member "such as the master
shall think good," a dole and a quarter plus one barrel in return for
five strings, two leads, and two dozen hooks. The borough and the
church also received a half-dole each from every returning boat
bringing in more than two lasts of fish, and these payments provided
an important source of borough revenue.

Despite these cost-sharing devices, and the general ease with
which Yarmouth owners seemed to have arranged them, costs of
ownership were quite high, and much of the expense could not be
passed on. In 1614 the author of the informative tract Britaines
Busse estimated the total cost of building, outfitting and operating a
seventy ton herring buss at the princely sum of £935 5s. 8d., although
the reported market price of £10 per last in that year would have
allowed an investor's finances to run in the black after a relatively
short time. Yarmouth herring boats of the Tudor period seem to
have averaged closer to fifteen tons burden, but the initial investment
for purchase or construction, added to the operating costs—including
wages, salt, barrels, victuals, nets and other fishing gear, customs
and other revenues, and repairs—the high rate of depreciation, and
constant risk of total loss through the perils of the sea, amounted to
a heavy outlay for a single owner. This may explain not only why so
many Yarmouth fishermen tried to cash in on the June herring run,
but also why so many of them still had relatively small boats at a
time when the Dutch, who actually received direct government in-
vestment, actually did employ busses of seventy tons and more much
of the time.

In social terms, the ship owners could come from the landed
aristocracy or even the clergy, but most Yarmouth fishing boat
owners were still styled as fishermen or, if they had successfully

11N.N.R.O., Yarmouth Borough Archives, Miscellaneous Correspondence, MS. C
36/11.
12Paul Rutledge, ed., "Great Yarmouth Assembly Minutes, 1538-1545," (Norfolk
13E.S. [name unknown], Britaines Busse, or a Computation of the Charge of a
Busse or Herring Fishing Ship, (1615), unpaginated.
14Of the 81 Yarmouth fishing craft reported as active in the survey of 1565, no less
than 50 were listed at 10 tons, and only four were as large as 24 tons; P.R.O., SP
12/38, fos. 17v-18r. John Keymer's 1601 assertion that Dutch herring busses ran up to
200 tons must be treated as an exaggeration, but 70-100 tons seems not to have been
unusual. Keymer, Observations Made upon the Dutch Fishery about the Year 1601,
(1664), p. 2. A more balanced assessment is provided in J.T. Jenkins, The Herring
and the Herring Fisheries, (1927), pp. 70-1, and 77.
diversified their interests, as merchants.\textsuperscript{15} Frequently one can observe such mobility through a change in occupational description or in evidence of political service. Robert Drawer served as one of the two Yarmouth bailiffs in 1555/6, a position tantamount to mayor, and still signed a recognizance in that year as "Ballivus de Yermouth in comitatu Norfolk, fisherman."\textsuperscript{16} By 1565, however, Drawer had come to own a twenty-six ton crayer\textsuperscript{17} a sturdy cargo ship of the day rarely used and ill-suited for most types of fishing, and in his will drawn up three years later he styled himself as "merchant of Yarmouth."\textsuperscript{18} Nicholas Fenne owned the 120 ton Iceland fishing ship "The Michael,"\textsuperscript{19} but had also served Yarmouth as an alderman, bailiff, and MP, and played a major part in securing the borough against both the rebels of Robert Ket in 1549 and the followers of Jane Grey four years later.\textsuperscript{20} One could cite a number of similar cases but, as the example of John Millisent suggests, opportunities at Yarmouth, as elsewhere, worked both ways. Having begun his career as a fishing boat owner, Millisent served as bailiff in 1549 and again in 1563, and as Customer of the port of Yarmouth from 1558 to his death in 1563.\textsuperscript{21} This enabled him to rise from the station of a fisherman to the style of "gent." which he employed in his will. But that document itself belies the grandeur of poor Millisent's pretensions: he willed the sale of his two houses and his fishing boat with all its tackle to pay off his debts to Sir Thomas Woodhouse.\textsuperscript{22}

It is also interesting to note that, although rapid progress up the social ladder was not uncommon among fishing boat owners, those at least of Yarmouth seem by and large to have spurned the lures of London and other far off attractions. Instead, they found their pleasures and, as the above cases suggest, satisfied their political aspirations at home or in nearby Norwich. This is probably not a typical pattern among the successful provincial businessmen of that age, but it does support a recent view of Norwich, to which


\textsuperscript{16}Acts of the Privy Council, new series, IV: 374.

\textsuperscript{17}P.R.O., SP 12/38, fos. 17v-18r.

\textsuperscript{18}N.N.R.O., Consistory Court of Norwich Wills, 35 Ponder, 1568.

\textsuperscript{19}P.R.O., SO 12/38, fos. 17v-18r.


\textsuperscript{21}Hamon Le Strange, \textit{Norfolk Official Lists}, (Norwich, 1890), p. 159; P.R.O., Exchequer King's Remembrancer Customs Accounts, E122/155, items 3, 6, 12-3, 15, and 17.

\textsuperscript{22}P.R.O., Prob. 11/46/24.
Yarmouth had long been closely linked, as an emerging London in miniature, and further attests to the urban vitality of Yarmouth itself.\textsuperscript{23}

Below the lofty ranks of the owners, the common fishermen and mariners were the backbone of the industry and, as is so often the case with men of their station, one finds all too little to report about them. The census of 1565 estimated four hundred seamen engaged in fishing at Yarmouth, including "such as repair thither from other places," as no doubt a large number did in this mobile occupation. Of this total, 150 were classified as mariners and 250 as fishermen, but in view of the interchangeable nature of skills and the dual purpose of many voyages, this distinction must not be taken too strictly.\textsuperscript{24} The more important positions on board a fishing ship, up to and including the master and mate, were filled largely from the ranks of those most experienced or qualified, and this often entailed apprenticeship. Out of 560 apprentices whose craft is recorded in Yarmouth records between 1500 and 1640, 132 (23.6\%); are listed as seamen, eighty-eight as mariners, four as fishermen, and thirty-nine were designated as "sailors," probably a synonym for "mariner."\textsuperscript{25} Of the forty Yarmouth shipmasters listed in a census of 1582, no less than nineteen (47.5\%) were apprenticed to that craft in Yarmouth alone. If one takes into account the numerous omissions of the printed records and the high degree of geographic mobility of that rank, this is indeed a high proportion.\textsuperscript{26} Most common seamen, on the other hand, were not apprenticed at all. A good number of those who served on fishing boats probable did so for only a few months out of the year, and spent the rest of their time in other forms of unskilled or semi-skilled labour. Many, of course, were probably unemployed during the rest of the year. In the mid-century years this number no doubt swelled with the faltering cloth industry of Norwich and other East Anglian textile centers.

Although they received board and what passed for lodging, as well as occasional supplies of special clothing or gear, seamen do not


\textsuperscript{24}P.R.O., SP 12/38, fos. 15v-16r. It is instructive to note that in the totals recorded in this survey of all 22 ports, havens, and creeks of Norfolk, Yarmouth accounted for 45.5\% of the mariners and 38.1\% of the fishermen.


\textsuperscript{26}P.R.O., SP 12/156, fo. 107; Calendar of Freemen, passim.
seem to have been particularly well paid by contemporary standards. Precise wages are difficult to estimate: sources are meagre and payment came in several forms. At best, they might receive a share of the catch, as in the covenant described above, and perhaps a share of such additional emoluments as trade, salvage, or plunder might provide. At other times the common seaman either received a flat rate for the voyage, based on such factors as his assignment on board and the duration of the journey, or was simply paid by the week or month.  

G. V. Scammell has estimated average monthly seaman's wages at 6s. per month in 1537, 5 to 8s. in 1546, 10s. in 1570, and 17 to 18s. by 1616, but gives a little precise notion of the variation in wages among members of the same crew, and implies as well that rates were standard from one port to another. Evidence from a Dunwich ship account of 1546 suggests that such variations within the same crew could be considerable: seven of the twenty-six crewmen, including the boatswain, cooper, and carpenter, were paid a rate of 20s. for the voyage, while two others received as little as half that amount for the same journey. If one assumes that this Iceland voyage was for about the normal three months, Scammell's average figure seems close to the mark. Still another account of 1546 comes from a wage scale set by the borough of Hull, in which flat rates applying to all common seamen on trading voyages were set for specific destinations: e.g., Hull to Scotland and back paid 18s.; to Berwick and back, 10s.; and a return voyage to any port between Berwick and Tynemouth paid only 8s. Although no such complete wage scales survive for Yarmouth beyond that described for the doles, there is evidence that the flat rate per voyage system was often employed for her merchant seamen and, by implication, probably for fishing voyages as well. It should also be noted that payment conventionally came at the completion of the voyage. This arrangement assured that the crewmen would remain up to six days to unload the cargo, and also allowed many a shipowner to cut some of his losses when his ship failed to return.

38Ibid., p. 143.  
Despite the lure of the sea and realistic possibility of mobility up through the ranks, the compensations were few for a life at sea. Dr. Neville Williams has found evidence of convicted felons being sentenced to serve on an Iceland fishing voyage, while the Younger Richard Hakluyt has reminded us that "No kinde of men passe their yeres in so great and continuall hazard (and) so few grow to gray heires."  

III.

Once financed, furnished, and manned, the fishing ship quickly got to the business at hand, and this may be divided into two chief activities carried on during the voyage: catching and preserving. The means of fishing, of course, depended on the quarry. As described by John Collins in the mid-seventeenth century, fishing for cod and ling was carried out in a manner unchanged for centuries, and one which is still employed by small fishermen off the coast of Newfoundland today. A ninety fathom line, heavily weighted at one end, was laid down, and an iron cross bar, or "chopstick," was set a foot or two above the weight. Attached to the latter were several lines, rigged with hooks and heavily baited. Once hauled up, the cod and ling were laid out on deck and the real work began in earnest. One crewman beheaded and gutted each fish and extracted the liver for its oil before passing it on. The second man split and backboned it, and threw the carcass into a salt trough where it was stirred about. Finally, the salt fish were stacked nape to tail in storage bins in the hold, with the middle of the stack lower than its sides so that the salt pickle ran towards the center. This rough preservation kept the fish until it reached port, often a full three months away, where it was usually washed and reprocessed. Once ashore, the processors might beat the moisture out of the fish with mallets to make stockfish, the staple of the English sailor's diet; they might dry it in the open air to make haberdine or "poor jack"; or simply salit it, which could preserve good quality cod for up to two years.

Herring were netted with small seines, and the work was done at

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"John Collins, Salt and Fishery, a Discourse Thereof ... , (London, 1682), pp. 106-7; Smith, Herring Bussie Trade, pp. 8-10."
night, when the characteristic turbulence and luminescence of the water identified the milling schools of fish. By the sixteenth century most catches were made too far from shore to allow landing within the twenty-four hour spoilage margin, and most herring were thus preserved aboard ship like cod. After gutting, herring were sorted into “full” (with spawn) or “shotten” (after spawning, and therefore more liable to spoilage). Thus divided, they were rowed in the salt trough, or “rowerback,” by the ship’s boy, and then packed in barrels. They were now known as “sea sticks,” and were usually intended to last only until they could be reprocessed ashore.

Virtually all aspects of the Yarmouth fishing industry which took place ashore came under the broad jurisdiction of the Borough Assembly. This jurisdiction pertained to all catches brought into the port year round, but its chief point of focus was the annual free fair or herring fair, held at the peak of the local herring run, from Michelmas, 29th September, to Martinmas, 10th November. This institution, a prime example of economic control by a medieval borough, existed as far back as the early thirteenth century and extended well beyond the sixteenth, perpetuating for its town an international identification with the herring industry. Roughly speaking, the borough extended its jurisdiction over the fair in four ways: it upheld the law; collected revenues; and regulated both the processing and exchange of its chief commodity. Almost from the inception of the fair the borough had been compelled to defend its jurisdiction against a variety of rivals, including the Barons of the Cinq Ports, the neighbouring port of Lowestoft, and even the Court of Admiralty. Although litigation against these challengers was a dominant theme even in the sixteenth century, Yarmouth generally succeeded in defending its rights and privileges.13

In practical terms the town’s fiscal and legal jurisdiction allowed its eight elected herring “wardens” to collect half doles and “heynings”14 and to enforce the monopoly of Yarmouth freemen on buying the herring at dockside. In support of these and other ordinances the borough held the right to attach the ships and goods of offenders: a forceful sanction, and one which it was not loath to

13These disputes are best described in H. Swindon, The History and Antiquities of the Ancient Borough of Great Yarmouth, (Norwich, 1772), chapters 8-12 and 18; see also N.N.R.O., MSS C36/3; C36/7; C18/1, fos. 38-39; C45/7; and F. W. Brooks, “The Cinq Ports’ Feud with Yarmouth in the Thirteenth Century,” Mariner’s Mirror, XIX, i (Jan. 1933): 27-51.

14A share of the profit resulting from the difference between the wholesale and retail price of the herring.
apply." Through an ancient and still hotly contested arrangement, Yarmouth was obliged to share fines from the fair court with the Barons of the Cinq Ports, but these were usually rendered in the form of a single lump sum at the end of the fair, and one suspects that the hosts thereby retained the better of the bargain. A variety of commercial revenues were also collected, including rent or sale of market stalls; customs duties on such items as salt, barrel staves, netting, and ships' supplies; fees for wharfage and storage; and space for drying nets.

The authority of the borough over the processing of fish was more complete and less controversial, and here again the freemen of the borough enjoyed a monopoly over most related activities. The sea sticks were unloaded and unpacked from their barrels, and washed and sorted by type and condition. Shotten, summers, and other less desirable fish were relegated to the smokehouse, emerging in four or five days as the famous Yarmouth red herring to whose praise the Elizabethan essayist Thomas Nash devoted an entire volume. The salting of more desirable part of the catch was carefully supervised every step of the way. At least in theory, only refined salt could be used, and it had to be added in such proportions that the herring floated on top in the dense salt pickle. The casks were thus filled up and topped off with more pickle, labelled with the type, grade, date, and processor's mark, inspected by the borough's inspectors, and finally sealed. Though necessary for proper curing, this was not a particularly economical process, for it took an average of seventeen barrels of sea sticks to yield 12 of salt herring after repacking. As one might suppose, the manufacture of barrels, provision of salt, and the packing itself were all carried out with rigorous supervision, often including an oath administered to the workers concerned. Nor were such supervisory tasks left to mere time servers: at an annual meeting of the Borough Assembly, held a full month before the opening of the fair, four of the worthiest members of the com-

"Half-doles and heynings together brought close to £50 per annum on the average to the borough treasury in the 1530s and '40s; Rutledge, "Yarmouth Assembly Minutes," pp. 8-9. See also the Yarmouth Borough Ordinances of 1491, printed in Swindon, History of Great Yarmouth, pp. 491-500, and N.N.R.O., C 18/6, fo. 4.

"N.N.R.O., C 18/6, fo. 291.

"Smith, Herring Busse Trade, pp. 7-8; Collins, Salt and Fishery, pp. 63-6; Thomas Nash, Lenten Stuff, (London, 1599).


"N.N.R.O., MS C 18/6, fos. 297-v-302, and MS C 18/2, fo. 5.
munity, usually drawn from the ranks of the ruling body itself, were named as "visitors" of the herring fair. Upon their shoulders rested the town's good name for forty days of the year. Although these officials received anywhere from 2d. to 12d. per last of fish inspected, and no doubt diverse additional remuneration as well, their responsibilities were time consuming, and they were wholly accountable to the Assembly itself.42

Regulation of sale and export was similarly thorough, and here the borough received backing from extensive parliamentary legislation and royal proclamations against such sharp practices as regrating and forestalling. From the time the laden fishing boats re-entered the statutory seven mile limit of the borough's jurisdiction until the re-packed or smoked fish was either consumed ashore or shipped out in the hold of a cargo ship, the town worked actively to assure a fair price and a fair profit. All catches within its purview had to be sold in strict conformity with the regulations. No sale could be arranged in advance of the ship's return or at sea outside the harbour. Once in port, all sales had to be made freely and without coercion, and this had to be carried out in the market itself rather than in any private dwelling. Finally, no fisherman could refuse to sell to any broker, and none could attempt to sell at more than the market price.43

Following the forty day duration of the fair, the borough returned to the normal and narrower supervision of the industry. The market court again superceded the fair court, the swell of strangers vanished virtually overnight and the services of the extraordinary fair visitors were no longer required to supplement the normal institutions of the borough, leaving those hardpressed worthies to resume their accustomed pursuits. Yet we should not assume that either the borough or its fishing industry came to a state of hibernation with the end of the fair. In the months where little actual fishing took place the netmenders, sailmakers, salters, carpenters, and chandlers were often at the peak of their year's activity, while the trade in fish, often carried in the same ships which had made the catch, went on through much of the winter.44 In return, the ships carried the imports upon which fishermen depended: hemp from Prussia; pitch, tar, deal boards, masts and spars from Norway and the Baltic in general; canvas from Ipswich and Normandy; victuals

42 N.N.R.O., MS C 18/6, fos. 297v-302.
43 N.N.R.O., MS C 18/1, especially fos. 51v-2v; see also Swindon, History of Great Yarmouth, p. 498, clause 23.
and other supplies from various English ports; and the all important supply of salt from wherever it could be obtained.45

As for Yarmouth’s own most famous product, her herring seems not to have commanded quite the price of the Dutch product in most of the century,46 but it went throughout Europe, from Norway and the Baltic to the Mediterranean. Its stockfish and salt cod, as well as its herring, were dietary staples of such garrisons as Calais and Berwick, and of English seamen wherever they served. Domestically, Yarmouth itself consumed a great share of its own product, but Norwich—now more than ever dependent on Yarmouth as its port—and London, among other urban centres, relied to a large extent on the Yarmouth fish supply. London alone accounted for roughly two-thirds of the Yarmouth herring consumed domestically in this period, with this proportion, if anything, increasing towards its end.47

IV

It is extremely difficult to assess with any degree of precision the soundness of Yarmouth’s fishing industry in the sixteenth century. Statistics regarding catches, numbers of ships, revenues, and even customs, are either too fragmentary in this century or too unreliable to permit a meaningful quantitative analysis.48 Non-statistical evidence, often characterized by the cries of borough leaders seeking aid from Westminster with portents of decay and ruin, or by variously motivated pamphleteers bewailing the state of the industry throughout the realm, must also be used with care. Yet considered at length, there can be little doubt that, while expectations of utter collapse may only have been realistic for the few years of the “mid-Tudor crisis,” the industry settled into a prolonged period of stagnation which endured throughout the century and on into the next.49

45Smith, Herring Buss Trade, p. 13.
46Even in 1557, when herring prices on the French market should have reflected the scarcity which one would expect during Anglo-French hostilities, the Dutch herring sold at £24 20s. the last to £20 12s. for Yarmouth’s. By contrast with these two leaders, however, Scottish and Irish herring could be had for £18 and £11 respectively, with the vast difference seeming to derive from reputation and relative quality of the preservation; Hitchcock, Herring Busse Trade, p. 164.
48This very shortcoming is one of the major themes of Dr. Williams’ thesis, cited above.
49This was certainly the conclusion of a presumably objective survey of the port carried out on warrant from the Court of Exchequer by non-resident commissioners; P.R.O., E159/350/337, dated 21 May, 1565.
At least one broad explanation for this slump arises when we consider the industry in its regulatory context. For several hundred years the fishing industry of Yarmouth was a prime example of the medieval, town-controlled enterprise, in which the local authority provided all the requisites of success: regulation of prices and wages; quality control of the product; political expression; and, of course, the facilities of the haven. When the borough had found a task too great, it had generally been able to find willing aid from Westminster. Like other boroughs, it customarily retained several courtiers or crown officials in its debt so that they might serve as friends at court for those needs. The ensuing cooperation between borough and court on behalf of fishing was a hallmark of the industry’s success for hundreds of years.

Yet as the medieval world drew to a close, several new challenges emerged within the fishing industry which were post-medieval in character and scale. For the first time, the monopolistic and essentially medieval organization of the Yarmouth fishing industry, and of the borough behind it, proved incapable of successful response. This broad failure to meet new challenges is best illustrated by contrasting the manner in which the industry and the borough approached two serious but representative problems in the medieval context, piracy and the decay of the harbour, with two challenges of more modern dimensions, the rise of the Dutch as the greatest fishing power, and the crisis in the supply of salt.

Whether motivated by individual enterprise or the policy of hostile governments, piracy was a familiar hazard to the fishermen of the medieval world. The industry had established a logical response at an early stage of its development: ships were employed—either by the borough itself or by syndicates of ship owners—and sent off to “waft” the fishing fleet in what amounted to an armed convoy. During peacetime it usually sufficed for Yarmouth to send off one or two wafters each season, and in many years none at all seem to have been employed. In any event, the resources of the borough and its citizens were usually equal to such small scale efforts. In time of war, when piratical incursions could be large and well organized ventures, the borough was not reluctant to seek help from neighbouring ports or Westminster. Nor could such requests be taken lightly: the Earl of Surrey, writing to Wolsey of the Scottish threat to the Iceland fleet in 1523, did not at all exaggerate in his prophesy that “if they succeed,

the coasts of Norfolk and Suffolk will be undone, and all England destitute of fish.⁹¹⁰ Even in the early years of the century, when maritime armaments were still dominated by bows and arrows, the costs of such wartime protection could prove a heavy burden.⁹¹ John Heron’s bill for wafting the herring fleet off the East Anglian coast, submitted to Westminster rather than Yarmouth in 1512, came to no less than £758 15s. 6d., but this must have been a large scale effort indeed, and probably covered the work of several seasons.⁹² As the archer gave way to the gunner as a shipboard fixture, and as inflation took its toll, costs mounted steadily. Yet even the few hundred pounds which might have been required in the worst of years seem to have been raised through traditional means, with such sources as the borough coffers, public subscription within the borough, contributions from neighbouring towns, and sundry sources at Westminster being tapped in the effort.⁹³

A second and more dramatic example of the paternalistic partnership between borough and central government came in response to the siting up of the Yarmouth haven.⁹⁴ The earliest settlers of Yarmouth had built their town upon the triangular spit of shingle formed at the mouth of the River Yare as it angled sharply toward the sea, with the haven itself a few thousand yards up river. But when the Yare changed its course in 1347 the haven began to sit up, and the primitive technology of the day proved incapable of effecting more than a holding action against further drastic shifts of the channel.⁹⁵ Over the ensuing four centuries the town was compelled to engineer no less than seven new channels between the River Yare and the sea, of which the last essentially forms the present harbour. In the interim, the condition of the haven varied widely. While in 1545 the Duke of Norfolk could report that the Yarmouth haven was the deepest on the east coast, and the most likely to attract a French landing,⁹⁶ it became imperative just four years later to begin work on

⁹¹Receipts for expenditure on arrows for “The Mary James” and other wafting ships are found in Letters and Papers, I, ii, p. 1192.
⁹²Letters and Papers, I, i, p. 642.
⁹³E.g., N.N.R.O., MS C 27/1, fo. 73 and C 18/6, fo. 43v; Historical MSS. Commission, Various Collections, IV, (1907), pp. 289-299.
⁹⁵The problems of silt, erosion, and other natural forces which changed the configuration of the English coastline were both serious and common in many ports of the realm right up until the development of modern technological remedies. Cf. J. A. Steers, The Coastline of England and Wales, (Cambridge, 1946).
⁹⁶Letters and Papers, XX, i, p. 505, 24 June, 1545.
haven number six. In that short span severe silting had made it necessary to haul ships by winch over several hundred feet of sand before they could be unloaded at dockside.37

The expenses of these undertakings were well beyond the financial capacity of a borough whose regular annual revenues, it is well to remember, averaged no more than about 110 during the first decades of the century.48 Yet, if only because of Yarmouth’s strategic position as a port of supply in English efforts against the French, the crown had long been generous in this regard. By the reign of Henry VI it had become virtually customer for the king to remit fifty marks from the borough fee farm to defray costs of keeping up the haven, and this policy was adopted in turn by the Tudors.49 The fifth and sixth havens were begun under Henry VIII, and the effort of 1549 might well have proven more successful had not Robert Ket’s spiteful rebels destroyed crucial buttresses after failing to take the town.60 The seventh attempt, begun in 1559, was substantially complete by 1597, but the total cost of these two efforts between 1549 and 1597 was no less than £31,873 14s. 4d.61

This extraordinary sum was raised in part by the usual remission of the borough fee farm and an added remission of tenths and fifteenths.62 But when even that proved insufficient the crown lost either the inclination or the resources to provide the required cash. In the end, the privy council solved the problem by granting Yarmouth a license to levy special assessments from the landowners and parishes of Norfolk and from the city of Norwich. These were collected in 1573 and 1574.63 The cost of these projects, however, had stretched the meagre resources of the borough to the breaking point, and the episode clearly illustrates the incapacity of even the central government to make a more direct financial response. The time was rapidly approaching when such extraordinary levies, and the licenses by which they were raised, would no longer be politically feasible.

Both piracy and the silting of Yarmouth’s haven were serious and enduring problems. Both were well known to other fishing ports as well, and both proved difficult to solve. Yet the former was kept under

39Swindon, History of Great Yarmouth, pp. 373-411.
40Ibid., pp. 392-401.
41N.N.R.O., MS C 28/1, fo. 265; Swindon, History of Great Yarmouth, p. 413.
42Swindon, History of Great Yarmouth, pp. 403-7; Calendar of State Papers Domestic, 1547-1580, pp. 111, 114, 291; Calendar of Patent Rolls, Philip and Mary, III: 219-20.
43N.N.R.O., MS C 28/1, fo. 265.
reasonable control and the latter was overcome entirely; in both instances success came through the existing structures of borough and central government, however they may have been stretched to meet the circumstances. The same may be said for at least one deleterious factor emerging for the first time in the sixteenth century: the diminished consumer demand for fish brought on by the Reformation legislation which removed meatless days from the English calendar. Here extensive efforts to restore fish to the diet were well within the powers of central government, and were pursued with vigour in the second half of the century in a number of statutes and proclamations. But two other threats to the fishing industry in the sixteenth century seem to have been too much for the traditional mechanisms of response. Both the uncertainty of the English salt supply and the dramatic rise of the Dutch as a commercial and maritime power proved central to the stagnation of the Yarmouth fishing industry in this period.

V

From well before the Conquest England had produced a good deal of its own salt, but by the fifteenth century salt could not compete with cloth and other burgeoning industries for the pool of available capital, and all but a few small works in Cheshire and Worcestershire ceased to operate. Even if that western supply had been more readily available to the East Anglian ports, it was far too small to meet demands. Yarmouth's fishing industry, along with that of most other ports, was thus compelled to rely on an imported supply, but this was constantly jeopardized by the internal upheavals of the major suppliers—the Low Countries, France, and Spain—and by their frequently hostile relations with England.

The uncertainty of this supply had an extremely deleterious effect in England. The price of both the refined white and the impure bay salt more than doubled on the English market between 1544 and

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*E. Hughes, "England's Monopoly of Salt, 1563-1571," *English Historical Review*, XL (1925): 234-5; Bridbury, *Salt Trade*, chapters III-IV, passim; Williams, "Maritime Trade of East Anglian Ports," pp. 80-1. 135-6. So desperate was the English salt market that a petition of c. 1570 even asked that no ship carrying corn to Spain or Portugal be permitted to return with any commodity but salt; *C.S.P. Dom.*, 1547-1580, p. 399.
1562, with the former—the only acceptable salt for preserving fish—
sometimes as much as twice the price of the latter.67 By the mid-
1580s both prices had nearly doubled again.68 It is by no means
surprising that the illicit use of Scottish salt, which had too many
impurities for proper curing, was sufficiently widespread in Yar-
mouth by the latter decades of the century to bring the quality of
locally salted herring seriously into question.69 Yet how could the
borough of Yarmouth respond to a problem of such proportions?
Regulations for proper salting were enforced as best they could be,
but this, of course, did nothing to augment the supply. The borough
was financially incapable of supporting its own salt manufacture,
and when, in 1582, two of its prominent citizens acquired one of
several patents of monopoly for salt making granted by Elizabeth,
their product proved too weak in concentration, and the venture,
tenuously financed to begin with, collapsed of its own weight.70

The government at Westminster was no more successful in its
efforts. On the one hand, it lacked sufficient capital to invest directly
in salt production; while on the other, its attempts to foster private
investment through the grant of monopolies were hamstrung in most
cases by the political need to use such patents as rewards for servants
of the crown. Virtually none of the patented monopolies for salt
manufacture in England proved successful in the sixteenth century.71
Not until private investors began to develop the natural rock salt
deposits of Cheshire at the end of the seventeenth century, when the
climate for investment had vastly improved, would the realm once
again enjoy a secure supply of salt.72

While the fishermen of Yarmouth experienced these setbacks, their
Dutch counterparts were quick to take up the slack. The Dutch had
always ranked among England’s foremost rivals in the European
fisheries, but a sequence of technological innovations in the fifteenth
century, augmented by emerging political autonomy and large scale
government investment in the sixteenth century, assured them a com-
plete hegemony over the industry which lasted until the collapse of

67P.R.O., SP 12/26, fo. 51.
69Williams, “Maritime Trade of East Anglian Ports,” pp. 93-4; Collins, Salt and
Fishery, p. 65; Hughes, Studies in Administration and Finance, p. 49.
70P.R.O., C.66/1222, m. 13-4. I am indebted to Mr. Gregor Duncan of Clare
College, Cambridge, for this reference. Cf. also Williams, “Maritime Trade,” p. 204.
71Hughes, Studies in Administration and Finance, chapter II, passim, and especially
p. 36.
72Ibid., p. 10.
their seapower in the age of Louis XIV.73

The first of these technological developments was the herring buss: a three-masted, fully decked, and round sterned ship which, at an average burden of about seventy tons by the mid-sixteenth century, was several times larger and more seaworthy than conventional fishing craft employed elsewhere. These ships permitted regular voyages to be carried out in relative safety and of great duration, even to the fishing grounds of the far northern waters. They also facilitated the associated development of the tender system, whereby tenders or "yagers" plied between the busses at sea and the home port, exchanging salt, casks, and victuals for the catch which had been barrelled and sealed on board.74 Of equal importance to the Dutch fishing efforts was the discovery of a more perfect method of salting the catch, made by a shadowy and almost folkloric figure named William Beukels.75 Coupled with the support tendered the industry by the Dutch "College" of fishing port representatives, and the frequent interruption of French and English maritime enterprise during the protracted hostilities of the fifteenth and early sixteenth centuries, the Dutch were easily at the top of the European fishing industry at the turn of the sixteenth century.76 To make matters even worse for English fishermen of the east and south coasts, the herring mysteriously stopped appearing in the Baltic in the mid-fifteenth century, and Dutch fishermen thus moved west into fishing areas closer to England.

Especially in the latter decades of this period we find abundant testimony to their success in a flurry of complaints from English pamphleteers.77 The Dutch were said not only to be out-fishing Englishmen off the shores of Norfolk and Suffolk, but were also reported to dominate the English markets, including Yarmouth, with

73The best account in English of the Dutch fisheries in this period is Antoine Beaufon, History of the Dutch Sea Fisheries, (Fisheries Exhibition Literature, IX, London, 1884). Unfortunately, its usefulness is compromised by its remarkable scarcity.
74Jenkins, The Herring, pp. 70-7.
75Bridbury, Salt Trade, p. 99; Jenkins, The Herring, p. 68.
the sale of their catch.\textsuperscript{18} Although many of these writers no doubt exaggerated in their effort to spur action from the government, their fundamental allegations seem well founded. It is not at all implausible to estimate, as a dispassionate observer of our own century has done, that the Dutch herring fleet in English waters alone numbered 2000 ships a year by the early years of the seventeenth century.\textsuperscript{19}

Against rivals of such strength the local industry was virtually helpless. When a few families of Dutch protestant fishing people emigrated to Yarmouth in the 1560s, the borough gained from the Queen the right to impose certain conditions on their settlement: they were compelled to share their secrets of salting, and were bound to include at least three Englishmen on each of their crews.\textsuperscript{20} This episode may have provided the borough with a rare opportunity to deal in some direct manner with the Dutch incursion: however it was all but meaningless in scale, and had little discernable effect. In a similar vein, the level of English capital investment in traditional fishing enterprises, was so meagre by the end of the century, and the investment prospects in other industries was so much more attractive, that an observer of 1614 could find only two men in all of England who were in the process of constructing herring busses.\textsuperscript{21}

Here again the central government was unable to act, and it is an ironic probability that the success with which Cecil and others had managed to restore fish to the English diet favoured the Dutch more than the native industry. Elizabeth’s foreign policy was too finely balanced, and the pro-Dutch lobby at her court was too vocal, to enable her to take any substantial direct action against this peacetime invasion, while the state of her finances precluded serious consideration of direct support to the industry. James I seems to have been the first English monarch to act against the Dutch fishing effort, but neither his commitment nor his strength were equal to the task.\textsuperscript{22}

VI

The fishing industry of Yarmouth provides an excellent example of the combination or private enterprise and local government control

\textsuperscript{18}Dee, \textit{General and Rare Memorials}, pp. 64-70; Keymer, \textit{Observations Upon the Dutch Fishery}, pp. 1-6.

\textsuperscript{19}Jenkins, \textit{The Herring}, p. 72.

\textsuperscript{20}N.N.R.O., MS. C 18/6, fos. 46v-49v.

\textsuperscript{21}E. S., \textit{Brizaines Busse}, (unpaginated).

\textsuperscript{22}The story of Stuart policy vis-à-vis the Dutch fishing industry is well told in J.R. Elder, \textit{The Royal Fishery Company of the 17th Century}, (Aberdeen, 1912).
characteristic of the medieval European economy. The goals of this system were a fair price, a fair wage, and a sound product. The achievement of these ends relied upon local government support which was both protective and restrictive. The fact that this industrial format endured for so long and gained such wide notoriety for both Yarmouth and its fish attests to its success in the medieval context.

Yet by the end of the medieval era the political and economic conditions in which this system had evolved and flourished began to change. The rise of strong commercial and maritime states, the establishment of new patterns of government support for industry in those states, and the greater demands for capital expenditure within the fishing industry, entirely overwhelmed the resources of the medieval borough. Even the government at Westminster, ill-equipped either structurally or fiscally to foster direct investment, was unable to respond. In this increasingly anachronistic political and economic context, the Yarmouth fishing industry found itself unable to advance. Not until basic changes had come about in the following century, including such organizational devices as the chartered company and the healthier climate for private investment of the same era, would the fishing industry of Yarmouth and other traditional fishing ports become viable once more. By that time, however the focus of England's fishing efforts had switched from the traditional fisheries of European waters to the coasts of North America, and the future of the industry as a whole lay mostly with the ports of the west.**

**See the standard work by Harold A. Innis, The Cod Fisheries, the History of an International Economy, (New Haven and Toronto, 1940), especially pp. 30-8.