

Ayrshire Archaeological and Natural History Society

# The Shipping Trade of Ayrshire

1689 - 1791



Eric J. Graham

September 1991

AYRSHIRE MONOGRAPHS No. 8

£3.60

AYRSHIRE MONOGRAPHS No. 8

# The Shipping Trade of Ayrshire

1689 - 1791

Eric J. Graham

Published by  
Ayrshire Archaeological and Natural History Society

Printed by  
Walker & Connell Ltd., Hastings Square, Darvel, Ayrshire

# THE SHIPPING TRADE OF AYRSHIRE

1689—1791

## Part One: The Problems of Location

### Author Profile

Eric Graham was educated at Kilwinning High School and Irvine Royal Academy and is a graduate of Craigie College (B.Ed.) and the universities of Strathclyde (B.A.) and Exeter (M.A.). He is presently working on his doctoral thesis on Scottish Shipping in the 18th Century with the Department of History, Strathclyde University. He is a Head of Faculty at the Davenant Foundation School. He has lived for ten years in Loughton, Essex and retains his enthusiasm and affection for the Ayrshire coast.

This monograph is dedicated to his parents  
who reside at West Kilbride.

Front cover illustration from etching "Saltcoats & C.", from painting by John Fleming, probably 1858 ( Courtesy of Carnegie Library, Ayr). Although not contemporary, this is a characteristic view of the coast.

From the eighteenth century shipper's point of view the development of Ayrshire's shipping industry was inextricably tied to the mixed blessings of its location.

On the deficit side of the business equation was the natural hazards of a lee shore and estuary sandbars. To a captain seeking the sea-room to work out against a wind or access to a safe haven in adverse weather and tides, the Ayrshire coastline presented an unrelenting hostile prospect. In 1803 Robert Reid Cunninghame of Auchenhavie circulated a broadsheet addressed *To the Shipping Interest of the Clyde* in the Port Glasgow and Greenock area. In this pamphlet he sought to extol the dubious virtues of his own recently improved port of Saltcoats as a storm haven. The means by which he chose to advertise his asset was to relate the chain of events that lead to the inevitable embayment (caught on a lee shore without the searoom to tack out against the wind) and stranding of a sailing vessel. His 'observations', despite his cumbersome grammar, summed up the situation well:

*When ships bound up Clyde, after getting to the North of the Port of Saltcoats, meet with a gale from the West to the North West and cannot weather the Castle-Craigs, Horse Isle and Portin-cross Castle, or point, so as to fetch into Fairly Road, and in that situation obliged to ware and stand to the Southward, where there is no chance, if that wind continues of bringing Lochryan; in that event, must be embayed in either Irvine of Air, or get upon the Carrick shore.*

Reid Cunninghame claimed that the primary motivation of this piece of commercial opportunism was not profit but by a sense of humanity prompted by:

*...the recent unfortunate stranding of the ships Montezuma and Minerva of Charleston to the Clyde, the former in the Bay of Air and the latter in the Bay of Irvine...[1]*

In a contrived postscript he felt obliged to add that, while at press, yet another vessel, the brig *Hugh* of Banff, had narrowly escaped a wrecking by the heroic intervention of two Saltcoats mariners and the locational merits of his harbour.

These were not isolated incidents. Embayment awaited Captain Love of the *Sharpe*, in from Maryland in November 1767, which resulted in her being stranded at Girvan. Love was fortunate in that his vessel was successfully refloated and ran the Atlantic for a further four years before being sold on the French market. [2] This sequence was repeated almost exactly two years later and on the same section of



the coast when a sister vessel, the *Murdoch*, was stranded. In this case Captain Orr was not so lucky as his charge was wrecked though fifty-five hogsheads of Virginian tobacco was salvaged by the brig *Royal Oak* of Ayr and taken to Greenock. [3] Further up the coast the West Indiaman, *Lady Margaret* (while carrying American tobacco), was wrecked at Portencross in January 1770 having failed to clear the point:

*...a fine vessel belonging to Glasgow, the richest that ever was fitted out from this country and the property of Glassford & Co. [4]*

She sank in the same spot as the Spanish Armada Galleon on which Captain Rae had employed a diving bell and grapple hook to recover a few of her cannons in the summer of 1740.

Other reports relate the full embayment scenario described by Reid Cunninghame. The surviving letter-book of the Ayr wine merchants, Alexander Oliphant & Co, describes the salvage operation conducted on wreck of the *Flora* of Greenock for the owner James Gammell after she had been driven up in Ayr Bay in December of 1770. [5] During the infamous winter of 1789 fourteen vessels were reported wrecked on the rock strewn lee shores of the Kyle and Carrick districts of Ayrshire. [6]

Such were the dangers of the Ayrshire coast that a skipper not intending to commit his vessel to navigating the Firth or with a forewarning of adverse weather, would normally anchor in either Lochryan, Campbeltown or the Bay of Lamlash (Isle of Arran) as his choice of sanctuary. Once committed to a run of the Clyde the next area of relative safety was behind the islands of the upper Firth, beyond the bays of Ayr and Irvine, which offered a weather shore and the land mass to shelter the fleets riding out westerly storms. The most regularly used storm anchorages were Rothesay Bay and Fairlie Roads.

However, in exceptionally severe gales or with a shift in wind direction, even these havens could become untenable for a vessel riding to her own anchors. If driven out into the lower Firth by a nor'westerly blow, the tactic was to run the vessel behind the rock promontory of Troon and up on the sands if need be. This was the alternative to a wrecking further down the Ayrshire coast given that the estuary ports of Ayr and Irvine were inaccessible in such conditions. This manoeuvre was successfully executed by Captain Denholm on the *Anne Galley* (200 tons burthen [7]/ 40 men) during the great storm of 19th January 1739. After his anchorage had become untenable, he:

*...drove from Lamlash roads over to Troon where they ran her upon the same sands and was, with the whole crew, preserved. [8]*

Of the other reports that mention this practice the most notable was that of the *Blandford* of Port Glasgow (110 tons/12 men), Captain Troop, which was salvaged from Troon sands with a cargo of Virginian tobacco in 1774. [9] The merits of this location were appreciated not only by hard pressed captains and local smugglers but also by the Glasgow merchants who tried, unsuccessfully, to acquire the land prior to the decision to build Port Glasgow. [10]

Once the Act of Union (1707) brought the west coast economy within the sphere

of the English Navigation Acts, which gave legitimate access to the British colonial markets, the safe passage of the lower Firth became of vital importance, particularly to the American traders. The combination of the seasonal timing of cropping and stripping tobacco and the high level of vessel utilisation demanded by the tobacco lords to maximise return on their capital rapidly extended winter sailing. [11] By the 1740's deep winter arrivals were regular entries in the customs records of the Greenock and Port Glasgow. [12]

The need to guide such vessels to the channels either side of the Cumbraes made the raising of light there a matter of urgency. A petition by the *Masters of Ships* (1743) eventually succeeded in 1756 with an Act for erecting, maintaining and supporting a lighthouse on the Wee Cumbrae island. As a consequence the beacon fire kept lit from the height since 1750 was replaced by a coal burning brazier tower. Built by Robert Stevenson and served by two keepers its chauffer burned Saltcoats coal from its first lighting in December 1757. [13] Unlike the May Light in the Firth of Forth it was not a private venture or operated for profit. The original Act required the appointment of a Board of Trustees whose commission was to use the 'Light Money' paid by passing vessels to maintain the service and the surplus to be spent on removing the shoals and mudflats in the upper reaches of the Firth of Clyde. [14] From the outset the Cumbrae light was of very limited use in overcast weather. With low cloud the coal brazier tower on top the isle (standing at 122 metres above sealevel) was obscured from general view. Even in good visibility its smoke was more indicative of its position than its illumination throughout its thirty five years service. In 1785 a proposal to substitute its coal fire with candles was considered but rejected as it was not a solution to the fundamental flaw of its location. This was eventually resolved and the fire tower was abandoned when a new light was built by Thomas Smith on the western end of the island at a much lower height of 35 metres.

The general difficulty of locating the outer entrance to the Firth of Clyde when running in from the Atlantic was a problem tackled by the Commission of Northern Lights when it was first established in Edinburgh in 1786. They authorised the raising of four lights around the coastline of Scotland one of which was built on the West coast at the tip of the Mull of Kintyre (lit by 1790). [15] This light was also found to be inadequate for vessels approaching from the south and a further act of parliament ordered the building of a second light on the island of Pladda at the southern tip of Arran. [16] The recorder of the *Statistical Account* for the Parish of Ballantrae, with the benefit of the full vista of the lower Firth of Clyde before him, concluded that the lights formed a chain, when those of Port Patrick and Donaghadee were included, that was:

*...of singular use to the towns of Air, Irvine and Saltcoats, which carry on a considerable trade with Ireland and the towns of the west of England... [17]*

He concluded that there was a need for a fifth light on the Lady Isle in Ayr Bay.

This small flat Isle, just off Troon Point, had not been overlooked by the Glasgow merchants ever mindful of the embayment threat to their investments. Sometime in the early 1770's they took matters into their own hands and raised two



unlit spires (daymarks) on the island to direct their masters to the last possible anchorage before Troon sands. Armstrong's map of Ayrshire (1775) notes their position along with sailing instructions to locate the anchorage behind the bare islet. The Rev. Dr. McGill of Ayr, however, was sceptical as to the value of these efforts:

*Nothing, however, but extreme necessity, can induce any ship to attempt anchoring there, be the [holding] ground ever so good, because there be no shelter above. [18]*

A sentiment shared by Reid Cunninghame:

*...it is found from experience to be very unsafe, from the foulness of the anchorage, and from want of shelter, being much exposed, if the wind should vary a single point from the immediate direction of the island. [19]*

The Rev. Dr. Wodrow of Stevenston, however, pointed out that several ships saved themselves there during the great storm of 1789. A tempest that must have blown mercifully from the right quarter to make the anchorage tenable. [20]

Not all navigational initiatives came from Glasgow. The town council of Ayr made a small contribution to the safety of mariners in the form of a £10 donation to William Fullarton of Rosemount's fund to repair the tower of St John. [21] The intention was that this monument would serve as a daymark in addition to the old sugar house and tolbooth.

The problem of a suitable storm haven, as an alternative to a partially sheltered anchorage, was a subject of general concern at the time. In 1734 John Watt Senior surveyed the upper Firth of Clyde though it would not appear to have been generally published until 1760. Sometime around this latter date accurate soundings were taken by James Barry of the Ayrshire coast between the Lappock Rock and the Lady Isle. [22] This survey confirmed that the coastal stretches between the Royal Burgh ports were shoaled in parts and with two foul areas inshore, the Scrags and Black Rocks. However, the seaward approach to Troon Point was found to be relatively clear and offered a good prospect for the construction of a new haven. The sheer scale of capital required for such a project and the Duke of Portland's exclusive ownership for the site postponed any development until the end of the century.

The established estuary ports of Ayr and Irvine lacked the basic potential to warrant large scale capital investment. Both were severely restricted by sandbars that became impassable in rough water or low tides. The coming of winter reduced shipping activity in and out of the ports to a minimum. Much has been written on the harbour developments of the Ayrshire ports during this period which would be superfluous to repeat. [23] However, it is advantageous in reviewing the composition of the Ayrshire fleets to summarise the physical limitations of each port. In normal circumstances there was less than three and four metres of water at high tide over the sand bars of Ayr and Irvine respectively. This limited access, in best possible conditions, to vessels under 200 tons burthen. In normal tidal conditions, half this tonnage size was the workable limit. Even with spring tides and daylight, negotiating an entry was a fairly skilful piece of navigation that required local knowledge. In any other circumstances the result was often disastrous.

During the night of that infamous storm of 1789 no less than twelve vessels were stranded on the bar at Ayr, one of which became a total wreck with the loss of all hands. [24] After such carnage, a subscription was raised by the coal merchants of the town to install a twin set of suspended reflecting lights. Previously there had been a lit fisherman's beacon at the end of the South Stob (raised 1712) but this had, in all probability, been dis-used since the disappearance of the herring shoals from Ayr Bay in the mid 1750's. The alignment of the new lights gave the course to negotiate the inshore hazards and also signalled the depth over the harbour bar relative to the state of the tide by moving the beacons up or down:

*The greatest attention has been paid to them, so that no accidents have happened through neglect. [25]*

Having safely worked into an estuary harbour other dangers threatened the security of vessels at their berths. The principal hazard was river spate water driving down with great force. In the great spate of 1739 all the vessels in Ayr harbour were forced out into the Firth. [26] Once a vessel broke free from its moorings there was little room for manoeuvre. The clearance of wrecks from within Ayr and Irvine harbours is a recurring entry in the Burgh Council minutes and pleas to the Convention of Royal Burghs. [27]

In exceptional combinations of spate, tide and wind the sandbars of Irvine and Ayr were flung up to such a degree that their harbour mouths were virtually blocked until such times as the force of the river water cut a new channel. Ayr was particularly affected in this way:

*We have seasons, Two months together, when not a vessel could be got out of the Harbour...In every Winter there are weeks together when none can be shipped...[28]*

In 1730 a sand bank at the entrance to Ayr harbour that was endangering shipping had to be partially removed by a crude method of dredging. The problem of silting was common to all Scottish estuary ports and the long term solution was invariably the erection of bulwarks or piers that funnelled the scouring effect of the river. Such measures had been taken by both Irvine and Ayr port authorities by 1775 but with only limited effect on the depth of water over the bars. Neither ports had the resources or the space to raise a flash lock gate system such as Bo'ness and Alloa had installed by this time. This expensive remedy created a wet dock area behind lock gates that were also used to hold back spring tide water which was then released at low tide to scour the channel. Only one example of this technology has come to hand on the west coast at this time. It was the system installed for the twin short canals from the Misk collieries of Ardeer to the River Garnock (c.1778) which worked on the same flash lock principle. Their position up the River Garnock was too remote to influence the depth over the harbour bar, half a mile down stream. These two crude canals were served by lighters of 30 tons burthen that frequently sailed out over the bar to:

*Irvine ships, which have already taken part of their loading within the bar of their own river, and, for want of depth of water, are unable to complete it. [29]*

As maritime traffic along the Ayrshire coastline relentlessly mounted after the American War of Independence, the other rock promontory of Ardrossan offered a new solution to the safe haven problem. This mile long headland juts out into the Firth of Clyde and terminates in two rock-shelved bays. Throughout the eighteenth century the North Bay remained undeveloped while the South Bay, or 'creek' as it was sometimes called, sheltered the small port of Saltcoats. This latter anchorage had the distinction of being divided between the parishes of Ardrossan and Stevenston. These were, in turn, controlled by the two most dynamic entrepreneurs of the region; the Cunninghames of Auchenharvie and the Montgomeries, the Earls of Eglinton. The precarious and often turbulent nature of their business rivalry occasioned an obelisk to be built half way around the seafront to lay the sight line between their properties at sea and on land. [30]

The first pier was completed at Saltcoats in 1700 after six years' labour thwarted by storm damage. It created a small anchorage that could shelter up to thirty sail on the Stevenston Parish shore of the bay. The quay was formed by a simple dog-leg pier that extended out half-way along the volcanic dyke, known as 'the Shott', and formed a basin that partially dried out at each tide. Access was limited to vessels of under 200 tons with a spring tide. [31] However, it was not astride an estuary and hence offered deep water access without the obstacle of a sand bar. Perched, as it was, at the end of the headland it also gave the vessels the sea room to work out against westerlies. A system of warping posts, rings and a buoy moored seaward of the Nibblock Rocks allowed vessels to haul free of the harbour and Shott rock shelf against the prevailing wind. [32]

This prime but exposed location was not without its penalties. The costs of repairing storm damage was a regular entry in the surviving *Accompts of money expended on the Harbour of Saltcoats* (1737-40). [33] Payment for labour was invariably a combination of cash and drink. It is a comment on the motivation of such communities at this time that one fifth of the recorded expenditure was for the latter item. [34]

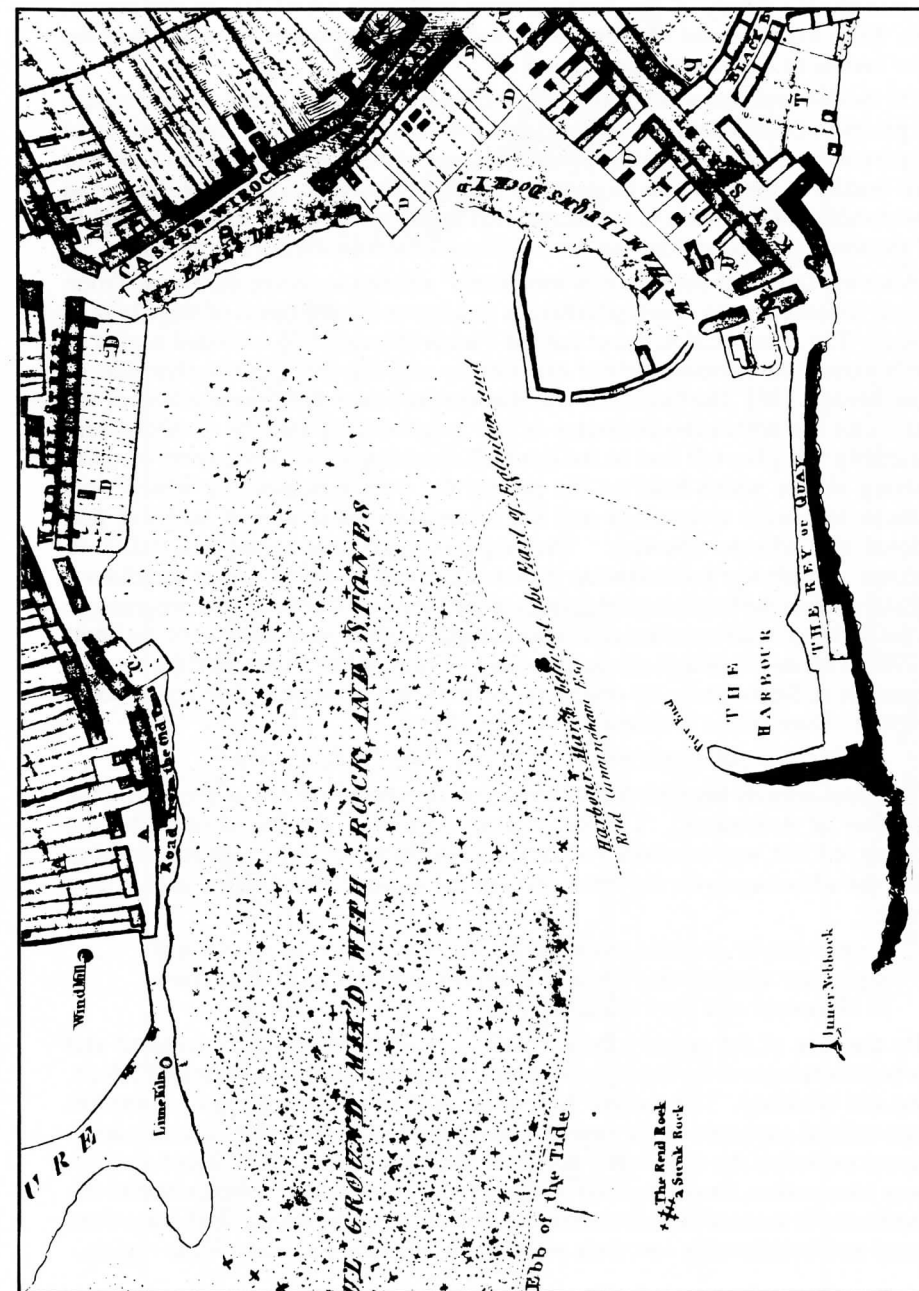
The destruction was severe at times. The same violent storm that drove the *Anne Galley* up on Troon sands also demolished parts of the harbour wall which took months to repair. On that occasion communal labour was summoned when:

*John Allison, Belman warned the town folk to make themselves ready to bear sand [35]*

Craftsmen reset the torn out rings and flagstones while miners and soldiers blew apart with gunpowder and cleared away the:

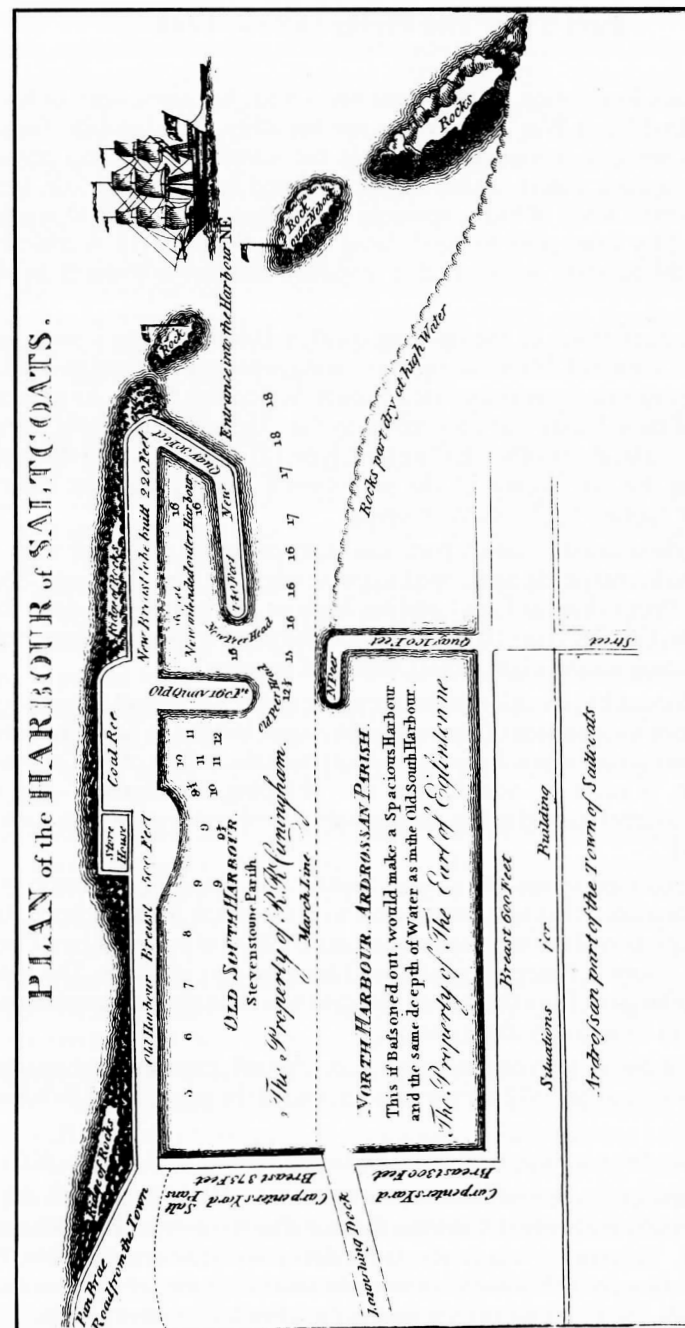
*...great stones and rubbish washed from the quay into the harbour... [36]*

The port of Saltcoats was primarily built to export Auchenharvie coal. The market for this essential commodity had climbed dramatically since the beginning of the century as domestic consumption accelerated with the growth in urban population. A further demand for coal was created by the new industrial processes emerging at this time. The supply side of this commercial operation was the key to success and this, in turn, hinged on location. Saltcoats harbour was situated in



Saltcoats Harbour, from the Eglinton Plan Book 1789, lodged with the Scottish Records Office.  
By courtesy of the Earl of Eglinton and Winton.

By the turn of the century these massive capital projects were in hand and absorbed the talents of the leading engineers of the day: Simpson, Rennie, Telford, Jessop and Whidbey. The ports of Ardrossan and Troon were of a scale to exploit the operational advances of the steam tug and iron hull bulk carrier. These marine advances exploited the deep water potential of each site and, when linked-up with railway locomotion, finally opened up the Ayrshire coalfields further inland to the export trade. In the face of such economies of scale the older established ports were eclipsed and irretrievably lost their position as the principal ports of the region.



*Unrealised proposal for improvements to Saltcoats Harbour.  
From "The Statistical Account of Scotland Vol. 7", 1793.*



## Part Two: The Fleets 1689 —1740

The Glorious Revolution of 1688 unleashed what has since been dubbed the 'Second Hundred Years War' with France and her allies. The Jacobite dimension to the general struggle immediately brought the warring navies and privateers' flotillas into northern waters. It has been calculated that Scotland lost, from its original very small stock of hulls, upwards of one hundred vessels to warfare or capture in the fifty years prior to the ill-fated Darien Scheme. [1] A critical state of affairs for the Scottish economy that propelled the moves towards an Act of Union.

During the first phase of the opening conflict (1689-97) war losses, natural wastage and a Council of Trade ban on purchasing replacement foreign-built hulls combined to accelerate the attrition rate amongst the Scottish fleets. An assessment of the extent of these losses was undertaken by the Convention of Royal Burghs in 1692, after the initial shock of war had hit the Clyde. [2] Their shipping stock survey confirmed that the last decade of the seventeenth century was the nadir of a disastrous half century for Scottish shipping.

The most devastated Scottish port was Ayr, once the principal west coast entrepôt for the French trade and a rival to the newly built Port Glasgow. She had lost her entire fleet valued at £2611 and her harbour and quays were described as in derelict state. [3] The report from the Royal Burgh of Irvine, however, was not quite so bleak mentioning eight 'small ships and barques'.

Professor Smout has questioned the accuracy of the Ayr report suggesting that it may have been the practice of the maritime Royal Burghs to paint the bleakest possible picture in order to win financial support from the coffers of the Convention. [4] However, it must be stated, that the 'shipping intelligence' and other contemporary sources quoted in this monograph, corroborate rather than contradict this survey. [5]

With the commencement of a new century the shipping industry of Ayr continued to stagnate. This was not the case with the North Ayrshire ports. In this region the completion of the harbour at Saltcoats (1700) had created a new fleet and stimulated the shipping fraternity of the neighbouring port of Irvine. The increase in shipping working out from these after that date was little short of spectacular and accomplished in a relatively short period.

The report of the Scottish commentator, John Spruell, gives the next insight into maritime affairs after the 1692 survey. He attributed the new port of Saltcoats, in 1705:

*as having forty or fifty small barks and ships trading with Ulster. [6]*

His observations can be confirmed by the first full review of Scotland's shipping stock undertaken by the Scottish Customs Service after its re-organisation along the English model. This survey was conducted under rather odd circumstances. It was commissioned directly by Whitehall to be undertaken over the lay-up period of the winter of 1723/4. However the review was, in fact, limited to a study of the records for the period 1707-12. The reason for this retrospective and exhaustive work was

essentially political. The spur was an orchestrated campaign, led by London merchants, against the activities of Scottish traders which had forced a parliamentary enquiry into Scottish maritime affairs in 1722 and 1724. The English merchants protested that the Scots had gained a substantial foothold in their overseas markets by undercutting their margins. This, they claimed, had been mainly achieved by the wholesale evasion of customs duty in the northern ports. The survey was, therefore, intended to amass the basic data from which to assess the extent of the Scottish marine's recovery since the Union.

The resulting survey is unique in that it listed each vessel by its home port and not by total number per customs precinct. It revealed that, even allowing for a high attrition rate between the two dates (1707 and 1712), the Scottish marine had quadrupled in tonnage. [7] This was a dramatic change from the state of affairs recorded by the Royal Burghs' survey of 1692.

While the East coast ports, led by Leith and Bo'ness, still dominated the industry, the emergence of the Clyde as a dynamic area of shipping activity was self-evident. Its percentage share of the total Scottish tonnage had doubled between 1707 and 1712. In the ranking order of the ports by tonnage the Clyde ports had surged forward by the latter date; Port Glasgow supported the fourth largest tonnage (previously ranked seventh); Irvine (including Saltcoats) had risen to eighth position (previously seventeenth) surpassing Greenock which, with only half the tonnage of Port Glasgow, was in twelfth place ahead of Inverness. The tonnage of Ayr, however, held a precarious fifteenth place just ahead of Stranraer but already surpassed by the yet undeveloped anchorage of Campbeltown.

The Ayrshire customs precincts reported as follows; Ayr supported 12 vessels (totalling 408 tons), while Irvine reported 90 vessels (totalling 2325 tons). The tonnage of Irvine accounted for just under one ton in every twenty that belonged to Scotland.

The precinct totals can be further broken down to reveal the actual distribution between the anchorages along the Ayrshire coast in 1712, commencing in the north of the County. The shoreline at Largs supported seven fishing vessels, all with Christian names, of a range 6-28 tons of which five did not exceed 10 tons. West Kilbride beach hosted a solitary fishing boat, the *Betty* (6 tons). Further down the coast Saltcoats harbour was home port to 40 vessels (totalling 1055 tons) of which two thirds did not exceed 40 tons. The few relatively larger hulls were; the *Jeane* (60 tons), the *Mary & Jane* (56 tons) and *Alexander* (50 tons).

The port of Irvine, including one hull listed as 'of Fullarton' (the *Margaret*, 24 tons), only just surpassed its neighbour with 42 vessels (totalling 1186 tons). Its range of hull sizes was very much in the pattern of Saltcoats but had a few ocean-going traders that are known to have made substantial passages. The largest vessels were the *Endeavour* (100 tons), the *Leopard* (90 tons), the *Seaflower*, *Plain Dealing*, (both 60 tons) and the *Prosperity* (58 tons). None of the above mentioned vessels had been registered in 1707.

The vessels belonging to Ayr, on the other hand, did not display the characteristic diverse range of colliers and coasters common to her neighbours. Ayr listed only ten hulls in 1712; four were between 60-70 tons of which only one, the *Phoenix* (60

tons) had been registered in 1707. In addition to this tally were the reports for the anchorages further south. On the Carrick coastline the river mouths at Girvan and Ballantrae were the home ports to the *Jane* (6 tons) and *Margaret* (30 tons) respectively.

These statistics illustrate the growing divergence in the composition of the fleets, and hence interests, between the two shipping fraternities of Ayrshire. While Irvine had prospered from association with the major coal exporting harbour at Saltcoats, Ayr evidently had not. The immediate result was, perhaps, predictable. In 1709 Ayr moved on the offensive by supporting a motion to enforce the Royal Burghs' monopoly to engage in foreign trade. The Convention duly sanctioned the suppression of illegal operators by 'very strenuous steps'. As all voyages to Ireland were deemed 'foreign-going' (until the Union of 1800) the coal trade from Saltcoats was a prime target. The imposition of their authority took the form of arresting at sea the Saltcoats vessels on their passage to Ireland. [8] Irvine vessels in the same trade were exempt by virtue of the royal burgh status of their port.

In the long term the stalemate was in no one's interest. Ayr could not recover her prosperity by denying others. Even the powerful cartel of Irvine shippers had a vested interest in keeping open the port of Saltcoats, with its access to the coalfields of Auchenharvie. Likewise, the predatory Earl of Eglinton, ever with his 'eye to ye town of Saltcoats', required the port operational if the Cunninghame family was to repay the debts outstanding to him. The stalemate was resolved by a Saltcoats deputation, headed by James Cunningham of Auchenharvie, attending the Convention to secure the right to foreign trade. This plea was duly granted in return for an undertaking that Saltcoats would relieve the Royal Burghs of a proportion of the cess tax which devolved on the inhabitants of the town at an annual rate of 'eighteen pennies Scots of the taxed roll'. [9]

A similar trial of strength was acted out between Ayr and its neighbouring parish of Newton-on-Ayr on the opposing north bank of the river Ayr. Legal suits commenced in 1711 and at one time the champion of the Newton cause, Sir Thomas Wallace of Craigie, succeeded in winning the parish the right of access to the fisheries and harbour. It was a short-lived triumph as subsequent litigation reversed the verdict and confirmed the Royal Burgh's exclusive privileges. [10]

This too was a pyrrhic victory for Ayr as the only readily accessible coal seams of export quality lay within its neighbour's boundaries. However, it would not be until 1771 that Ayr town council acknowledged this mutual dependency and gave its permission for the erection of a wharf on the north bank for the exporting of Newton coal. The troubled history of the coal enterprises in and around Ayr are a study in themselves [11] and it must suffice to say that it was not until after this development that the port of Ayr became a major exporter of coal.

In the north of the shire the exporting of Auchenharvie coal, after 1700, expanded at an impressive rate, though not without great expense. [12] Sir Robert Cunninghame claimed, in a memorial dated 1704, that the harbour had cost his estate in excess of £1000 and was, along with the cost of draining his badly flooded pits, the major reason for his impending insolvency. [13] A state of affairs that was

forestalled by heavy borrowing from the Earl of Eglinton and the sale of the lands of Ardeer to the Warner family. The eventual outcome of this financial crisis was that his heirs lost control of the family's business complex of collieries, harbour and salt pans. Initially to the Irvine shippers' cartel led by Provost McTaggart (1719 - 1721), then to an English consortium fronted by Peck and Potter (1721 - 1728), then to Emmanuel Walker, the Customs Collector of New Port Glasgow (1728 - 1732) and finally back to a loose alliance of shippers managed by a local ship master John Cunninghame (1733 - 1737). Even after the Cunninghames of Auchenharvie had wrested back control the debts accumulating from this earlier period crippled the family fortunes for most of the remaining century.

A view of North Ayrshire shipping operations during the 1720's survives in a correspondence from Peck to the rival coal magnate Sir James Lowther of Whitehaven. He claimed that Saltcoats owned thirty-three vessels of small burthen (averaging 66 tons Dublin) with only the *Jean[e]* of any size. [14] This would indicate that the slight contraction in numbers since 1712 had been compensated for by a increase in the average size of the colliers.

A further dimension, that of hull utilisation, has been pointed out by Professor Cullen whose work on Anglo-Irish trade [15] indicated that some of the colliers were occasionally employed in the fisheries. Indeed, by 1725 a 'Saltcoats Fishing Company' was negotiating to rent an area of ground for the purpose of drying fish. [16]

In comparison to such dynamics the maritime activity at Ayr remained locked in its own inertia. In 1724 Commissioners from the Convention of Royal Burghs inspected the state of the harbour to assess Ayr's claim for financial assistance. They reported that:

*...the trade of the said Burgh was very low and much decayed and that there is only two barques, one of about thirty tons and the other about twenty belonging thereto. [17]*

This verdict would indicate that, if anything, her fleet had been further reduced since the customs report of 1712. A situation confirmed by eyewitness accounts including that from the English engineer Peter Walker prior to his departure to Whitehaven. [18] Indeed, at this stage in its development, it seemed inevitable that Ayr would lose her customs precinct status.

Information on Scottish maritime affairs for the decade commencing 1730 is very scarce. The customs records for the Ayrshire ports, as with all other Scottish ports, do not appear to have survived in any coherent form. Nationally collated shipping statistics do not become available until 1759, following the appointment of an Inspector General of Customs for Scotland (1755). Similarly, newspapers that carried shipping intelligence, quite prolific during Queen Anne's war, have not survived from the 1730's.

Set against this dearth of information the survival of the harbour accounts for Saltcoats for the period August 1737 - July 1740 takes on an importance beyond that of local interest. [19] The commencing year of these accounts was that of the return of control of the Auchenharvie estate assets to the Cunninghame family. The

catalyst for this revival was the marriage of the Cunninghame heiress, Anna, to John Reid, son of the local minister and an astute businessman. It is, therefore, highly probable that systematic harbour accounts were not kept before, even though a shoremaster had been appointed in 1724, and were an innovation of the new management instigated by John Reid.

The accounts cover a three year period during which 47 individual vessels used the port. Four vessels can be presumed, by their name, size and solitary visit, to be 'foreign visitors'. The remaining 43 vessels were a mixture of Saltcoats and Irvine vessels, predominantly from the former. Their tonnage can be calculated if a harbour duty of 1/2d per ton burthen is assumed. [20] Using this formula the total tonnage amounts to c.2840 tons which gives an average vessel size of c.66 tons for the port, a figure compatible with that stated by the English manager Peck.

The group frequency distribution by tonnage is the most revealing feature of this data. Of the 'home vessels' only two, the *Susanna* (Captain William Ga[u]lt) and the *Thistle* (Captain Robert Brown), scraped over the 100 ton mark. Nine vessels were of the 81-100 ton size; 14 hulls between 61-80 tons; 16 vessels between 41-60 ton class and finally two boats below the 40 ton limit. It would seem certain that the 30 vessels of the combined 41-80 ton ranges were the mainstay colliers that served the Irish run. Five of the nine vessels above the 80 ton limit can be traced serving with the Clyde tobacco fleets. [21]

Sailing patterns during this period were highly seasonal, varying from five or six passages per month during the winter to double that rate in high summer. The spring equinox was the low point of the sailing year. Of the c.230 sailings listed in the accounts, 90% were for the 41-80 ton range colliers. These vessels came and went as the market suited their masters and, in doing so, set the buying price of coal at Saltcoats quay side. An oligopolistic situation identified by both John Reid and his son Robert Reid Cunninghame (he took the surname in 1770) as a primary key to control and hence profitability:

*...it is absolutely necessary for the Stevenston colliery to have their own vessels, that will be the carriers to market; regularly summer and winter. [22]*

The implementation of this stratagem was suspended due to the ever present liquidity problems inherited from the family debts. It was not until the last decade of the century that Reid Cunninghame was in a position to actively pursue the acquisition of a company fleet of colliers.

However, in the late 1730's, there was a more pressing problem: namely, gaining full control of the daily operation of Saltcoats harbour. The accounts reveal a rather lawless state of affairs, no doubt encouraged by the independent actions of the shippers' cartel and endemic smuggling. On at least one occasion John Reid was physically assaulted. His accounts note the legal costs incurred for:

*the apprehending, imprisoning and prosecuting, William Bolton, sailor for deforcing Mr John Reid, one of the managers, and wresting the hatchet from him when going to cut James Brown's cable whose ship was likely to stop work. [23]*

This statement also hints at the acute problem of congestion along the short quay wall where all loading was carried out. Improvements to the quay and channel at Irvine, commencing in 1739, complemented developments at Saltcoats and eased the shortage of berths for loading. [24]

Six years prior to these developments a customs outpost had been set up at Saltcoats to weigh salt produced from the saltpans liable for duty. However, this one-man station did not have the authority to clear a 'foreign-going' passage to Ireland, which remained the prerogative of the customs precinct officers at Irvine. This was an operational imposition that placed the Saltcoats shippers at a serious disadvantage:

*...the great inconvenience, less time and expense to which the party are subjected, reduced to the necessity of going to the Customs House of the Port of Irvine situated at the distance of seven miles, in order to report and clear out, have long felt to be a very severe grievance... [25]*

This problem was never satisfactorily resolved though there would seem to have been a working compromise reached later in the century. By informal agreement the cargo declarations were allowed to be taken independently overland to Irvine so that the vessel could be met off Irvine harbour bar and inspected by the tidewaiters.

Central as coal was to the prosperity of the Ayrshire maritime communities of the Eighteenth Century, overseas trading to the Americas and Europe and the fisheries were major elements in the development of the regional economy.



### Part Three: Trade developments 1689 —1770

The extent of overseas trade from the Ayrshire ports prior to the Act of Union is well known. [1] Inroads into the colonial trade had already been made in the thirty years prior to 1707. The scale of such ventures was very limited in both in frequency of passages and size of vessels. Only scant details are available from the Customs Records for the few traders that crossed the Atlantic during this period. The best known example, the *Swan* of Ayr (14 tons) which was wrecked in the West Indies, may not be typical as she was an extremely small hull for such a hazardous passage. Nonetheless, what can be said is that the range of tonnages employed was not far above her burthen as none of the other vessels sizes reported exceed 100 tons. [2]

Similarly, the impact of the twin plagues of predatory English warships enforcing the English Navigation Acts and enemy privateers in Scottish waters, after 1689, has also been documented. [3] From the outset of this era of hostilities the North Ayrshire ports were actively involved. As the siege of Londonderry tightened in June, the *Elizabeth* of Culrairie, Captain William Boyd, arrived at Saltcoats creek with the last evacuees before returning with forty volunteers to Londonderry. [4] During that summer three French frigates based at Carrickfergus effectively controlled the North Channel in preparation for a Jacobite invasion from Ireland. In such circumstances few Scottish merchants found the nerve to venture an armed vessel to Ulster with supplies. Of the two Scottish vessels that did run the gauntlet one was the *Mayflower* of Irvine (tonnage and armaments unknown) Captain Hugh Brown. [5]

This act of solidarity between Scottish and Irish kinsmen may have proven to be an astute business move at a time when the traditional French market was lost. Customs entries for the Ayrshire ports during this formative period (1691-2) indicate a sudden and dramatic leap in the number of passages to the Ulster ports. [6] As to be expected after the devastation of war their cargoes were primarily victuals, livestock and coal. This stimulus to trade must have influenced Sir Robert Cunnighame's decision to invest his inheritance in a harbour at Saltcoats to export the output of his coal and salt-pan ventures to Ireland (1693 onwards).

As the Irish crisis subsided, after the Battle of the Boyne (1690), a new threat to Clyde shipping materialised with the presence of English warships in northern waters. Sailing under English Admiralty orders they regularly seized Scottish vessels suspected of breaching the English Navigation Acts or trading with the enemy. The open clash between the Scottish Admiralty and its English counterpart over this fundamental issue of sovereignty rapidly became a national outrage when Clyde vessels received rough handling in English waters. One such cause celebre was the detention of the *Barbara* of Irvine while conveying Sir Robert Barclay and family to the spa at Bath. The vessel was declared legal prize and the passengers held as suspected Jacobites by the English frigate which had re-captured her from a French privateer sailing under letters of marque issued by the deposed James. [7]

The panic generated by the sporadic attacks by enemy privateers inside the Firth of Clyde was more disruptive to trade than the few prizes they managed to take. The scares during the summers of 1689 and 1711, which paralysed the shipping in the Firth, were, however, the exception rather than the rule. [8]

The resolution of the contentious issue of maritime jurisdiction and access to the colonies, was at the very heart of the Treaty that created the union. Article IV of the Act of Union gave the right of trading with the colonies to all 'British registered vessels. At the same time Article XV allotted £219,094 sterling from the 'Equivalent' to re-imburse the shareholders of the Company of Scotland, better known for the 'Darien Scheme'. The first of these articles effectively made the Royal Burghs' monopoly to the foreign trade of Scotland an anachronism. The second re-financed the Scottish mercantile interest. Ayrshire, with its clear access to the Atlantic and the Americas beyond and with a substantial subscription list to the Darien fiasco to reclaim, with five per cent dividend, undoubtedly benefited from this settlement. The price was the surrendering of Scottish maritime sovereignty to the Admiralty sitting at London.

The remaining problem, that of enemy privateers, was quickly contained after the Union by the Convoy Act (1708) though the tangible effects of this innovative legislation were not fully enjoyed in 'North Britain' until the system was implemented in 1710. For the last three years of the war the naval sixth raters *HMS Seaforth's Prize*, *Queensborough* and *Aldborough* were stationed in the Clyde as convoy escorts as far as Kinsale. [9]

Thereafter, the maritime community on the West Coast flourished as a full member of the British mercantilist empire, located away from the main theatres of war and protected by a naval screen. Daniel Defoe, writing in 1727, related the new circumstances which favoured the Clyde traders:

*...it be calculated how much sooner the voyage is made from Glasgow to the capes of Virginia than that from London, the difference will be made up in freight, and in the expense of the ships, especially in wartime, when the (English) Channel is thronged with privateers, and ships wait to go in fleets for fear of enemies; for the Glasgow ships are no sooner out of the Firth of Clyde but they stretch away to the north-west, are out of the road of the privateer immediately, and are often at the capes of Virginia before the London ships get clear of the channel. [10]*

Without doubt the stimulus to Ayrshire ports to re-enter the overseas trades was at work from 1707 onwards. The earliest post-union reports are from the 'shipping intelligence' of 1711. [11] In August of that year the *Seaflower* of Irvine (60 tons), Captain Robert Rae, arrived safely from Spain with salt while in December the *Endeavour* (100 tons), of the same port, returned home from South Carolina with a cargo of rice, pitch and tar. Ayr, with one exception, failed to report any activity. That solitary passage was made by the *Margaret* of Ayr (90 tons - possibly the *Margaret* of Girvan) moving along the coast in ballast under Captain Archie Zuill. [12]

The absence of systematic records after the end of Anne's War (effectively 1712) brings down a curtain on information on the 'long-haul' passages from the Clyde for the next two decades. However, indicators from other fields of study would suggest that there was a sustained level of maritime activity during this period. A snippet of information, ostensibly on smuggling, comes from the Montrose customs reports of 1720 which noted the arrival of the *Prosperity* of Irvine with 100 hogsheads of tobacco. [13]

Another indicator is from the area of education. The demand for skilled mariners was reflected in the references to maritime skills taught as part of the curriculum in the schools of the Ayrshire ports. For example, Navigation was introduced, along with Geography, at Ayr in 1727. Their application to trade and commerce was explicit as the Burgh Council supplied their schoolmaster with:

*maps and globes, the knowledge of which...is highly necessary for forming the man of business. [14]*

The schoolmaster for the Ardrossan shore of Saltcoats, appointed in the late 1740's, was:

*...capable of teaching...the practical parts of geometry, trigonometry and navigation in the last of which he has been very successful. [15]*

The status of such skills was high as demonstrated in the most effective way - by price. By the end of the century the parish school of Saltcoats, a prime recruitment area for Clyde captains, offered arithmetic at 5/-, bookkeeping at 10/6d and navigation at one guinea (£1-1/-) per quarter. [16] The success of this programme of instruction is evident in the number of Ayrshire captains who commanded Virginiamen across the Atlantic.

Fortunately, by the beginning of the 1740's, the availability of shipping information dramatically improves, ending the interim thirty year silence. The surviving customs records for Greenock and Port Glasgow date from 1741 and are very closely complemented by the resumption of newspapers carrying 'shipping intelligence'. Britain was, again, embroiled in a new dynastic struggle, the 'War of Jenkin's Ear' or 'Austrian Succession' (1739-1749). Though Spain was the principal adversary during this war, the eventual entry of France on her side was assumed. In anticipation of this escalation in hostilities and its consequent disruption to trade to a key market, the Scots concluded a trade agreement with the French State Monopoly in 1744 (the year of their entry into the conflict) to supply tobacco for five years. [17] This commercial coup not only secured for the Clyde a near monopoly in trading this commodity with France but also granted immunity from capture to Clyde vessels running tobacco to the French Atlantic ports. Both these enhancements to their trading position were bitterly resented by the English merchant classes.

By then Ayr, Irvine and Saltcoats, to varying degrees, were acting as satellites to the new wet dock ports of Greenock and 'New Port' Glasgow. They provided the supplementary hulls and crews necessary for the great mid-century expansion of the Clyde in the Atlantic trade. Between 1740 and the outbreak of the American War of Independence (1775) at least 36 Ayrshire vessels are known to have crossed

the Atlantic carrying tobacco. [18] The significance of this number can be put in perspective if compared with the total of 342 individual Scottish vessels listed in Customs reports engaged in this trade for the same period. [19] This means that the Ayrshire ports provided one in ten of the vessels of the Scottish tobacco fleet. This figure would, however, be substantially lower if it was based on tonnage as the larger hulls in the trade were registered at Greenock and Port Glasgow.

Of the Ayrshire contingent the largest number belonged to Ayr, with fifteen vessels, in comparison to Irvine's fourteen and Saltcoat's seven. A few of these vessels were making their maiden voyage from the American shipbuilder's yard and hence recorded only a 'single' Atlantic passage with tobacco. The 'regular' running ships in the tobacco trade were those hulls that made multiple voyages (Appendix 2 lists each vessel and known history).

The major contribution of the Ayrshire ports to the tobacco fleets was during the formative period prior to 1760. Thereafter, the trade rapidly became exclusive to Greenock and Port Glasgow where wet dock operations facilitated the high turn-round rate and larger hulls demanded by economies of scale. Of the Ayrshire ports only Ayr maintained a direct import trade in tobacco which, after 1760, was on a very infrequent basis.

The revival of Ayr's overseas trade had commenced in 1733 with a successful defence of her right to remain on the list of nominated ports that could import tobacco. This cause bore fruit in 1739 with the building of a quayside warehouse for the reception of hogsheads by Hunter, Ballantine & Co. In keeping with these developments the earliest Atlantic passage recorded for this new era in Ayr's business affairs dates from the same year. It was for the *Speedwell* (85 tons) which returned to Ayr with 183 hogsheads of Virginian tobacco in 1740. Two other sister ships followed her route in 1743 and returned safely to the Clyde. By the start of the next decade a small fleet of 'regular' vessels had begun to operate, no doubt in response to the establishment of a second company trading in tobacco from Ayr, that of David Galloway & Samuel Cuthbert (1749). [20]

In contrast Irvine's 'regular' tobacco traders never returned with their cargo to their home port. Instead they serviced Greenock, Port Glasgow and, on three occasions, Ayr. [21] In the West Indies trade at least one passage would appear to have been made by the *Boyd* of Irvine to Antigua in 1760. [22] This upsurge in maritime activity from the port, when linked to its role in the coal carrying trade, largely accounts for the mid century expansion of Irvine's trade and population.

The Saltcoats overseas fleet was, as far as can be ascertained, also exclusively engaged in servicing Greenock and Port Glasgow. It may well be the case that the Saltcoats vessels sent across the Atlantic had served as colliers and coasters at one time or another. This was certainly the case with the *Thistle* of Saltcoats (110 tons) which entered from Maryland in 1743, made a further passage to Rotterdam and then returned to the Clyde to be re-fitted for the Irish run in hides while awaiting an up-turn in the tobacco trade. [23] The surviving captain's accounts for the brig *Peggy* of Saltcoats illustrates the versatility of the larger collier brigs. In one year (1793) she ran coal to Dublin and rum from St. Kitts in the Caribbean. [24]

If the years immediately prior to the '1744 Contract' are taken as a sample study of Clyde shipping activity for this dynamic period then the role of the Ayrshire ports can be appreciated. During the years 1741-3 the *Glasgow Journal's* 'shipping intelligence' listed c.400 shipping movements of which 98 can be attributed to Ayrshire based vessels, that is to say, one in four of all reports. Saltcoats vessels were by far the most prominent (78 entries) followed by Irvine (16) and Ayr (4). [25] The majority of vessels were serving Greenock or Port Glasgow in one or other aspect of the tobacco trade including seven trans-Atlantic voyages by Saltcoats vessels.

Given the wartime conditions then prevailing it is understandable that there were no voyages to Spain recorded and very few to the traditional French market. The bulk of Clyde sailings, other than Ireland, were to Northern European destinations via the Orkneys. Tobacco out and timber and iron back, with a lay-up at the home port between December and March, was the common pattern. Barrelled herring was the other staple export to Europe and America.

A typical trader was the *Alexander* of Saltcoats (c.70 tons), under the command of Captain Archibald Steele. She sailed from Greenock for Norway in August 1741 returning in November having stopped over at Islay to salvage part of the cargo to a wrecked Virginian, the *Christian* of Glasgow. She then laid-up at Saltcoats until the following March when she returned to Greenock and her regular route to Norway. By late autumn she was employed on the Dublin coal run until the sailing season ended in December. [26]

The appointment of an Inspector General for Customs in 1755 and the subsequent compiling of centrally-held shipping statistics at Edinburgh, in 1759, heralds a new age in administrative practices. These yearly reports were based on the traditional tonnage burthen measurement which was maintained in this format five years beyond the 1786 Registration Act. [27]

There is little doubt that, with perhaps the exception of the entries from the remote isles, they were considered highly reliable accounts in their own time. The Rev. James Richmond of Irvine held no reservations in quoting the customs statistics for the shipping of his port for the *Statistical Account*:

*By an accurate list made up in the Customhouse on the 30th September 1790. [28]*

The graphs 1 and 2 (appendix 3) display the customs reports for the shipping of the two Ayrshire customs precincts over the period 1759-91 by tonnage and vessel number respectively. At the outset all ports were suffering from the combined effects of a national credit crisis and a prolonged conflict that had, for the first time since Queen Anne's War, breached the security of Clyde. This was the 'Seven Years War' (1756-63) during which the great French privateering 'admiral' Thurot penetrated as far as the North Channel in his raids where, it is reputed, he burned some of his prizes off Ailsa Craig in 1758.

After 1762 northern waters were again secure against intruders and normal trading conditions were resumed. Ayrshire's shipping stock grew in line with the general upturn in the economic climate. However, by the end of the 1760's this

recovery had peaked and, thereafter, vessel numbers and tonnage fell back steadily as the centre of gravity for shipping activity in the Clyde consolidated around the specialist ports of Campbeltown, Greenock and Port Glasgow.

During that decade only one new trading enterprise commands attention, Alexander Oliphant & Co., wine merchants of Ayr. This extraordinary firm commenced business in 1766 and had premises and connections far and wide in lowland Scotland and Northern England. Their original vessel, the *Nelly*, ran aground in the West Indies en route from Madeira via New York and was replaced by the sloop *Buck* (50 tons), Captain William McRae, which had been purpose built for the owners at Ayr by John Fraser in 1768. [29] She was almost certainly a fast 'running ship' as her skipper reckoned sixteen days was a good passage from Lisbon to Ayr. [30] Her sailing orders indicate that she ran to most of the wine exporting ports on the Atlantic seaboard of Southern Europe. When not conveying wine she was employed in the Irish trade, carrying coal as readily as claret.

The other major overseas trade, which is normally under-rated by economic historians, was that conducted illegally. Smuggling was endemic during this period and on a very large scale which, by its clandestine nature, cannot be precisely measured. What can be said is that it was highly organised and all-pervasive in the coastal communities which regarded the activity as a justifiable supplement to local income. Smuggling had the additional attraction of being anti-authoritarian in a period when Jacobite sympathies remained ingrained after the Glorious Revolution and the Act of Union. [31]

A vast range of goods was smuggled included such diverse commodities as wall paper, silk, playing cards, coffee, cocoa and books. However, the mainstay of the trade was in tobacco, tea, wines and spirits. Tobacco was by the far the safest commodity as the import duty on Virginian tobacco was redeemable if it was declared for re-export to the Continent. It was the simplest matter to re-land an 'export' cleared cargo along the Ayrshire coast for sale to the domestic market. If the captain was unfortunate enough to be caught by the King's cutters his plea was invariably 'adverse winds'. This fool-proof defence encouraged the merchant classes to dabble in such illegal dealings especially as most were already actively engaged in the wholesale fraud of re-exporting useless tobacco stalks, wrapped in leaf, so that the import duty could be reclaimed against their weight. In 1724 the zealous Collector of Liverpool wrote to his superiors on this activity:

*I have lately discovered and detected a most notorious fraud...scarce to be equalled in North Britain...and I am told some of our merchants carry on the same fraudulent trade in Glasgow... [32]*

In 1729 he made a list of all the vessels leaving his port with tobacco for foreign markets which he suspected were intending to run their cargo to Ireland or Scotland. The Irish and Scottish Customs Service refused to act on his information. [33]

The smuggling of tea, wines and spirits was a much more dangerous affair and these commodities were the stock-in-trade of the professional armed smugglers who supplied the needs of a growing domestic market. In 1784 it was estimated that scarcely a third of all tea consumed in Britain had been legally imported. [34] The



letter books of Oliphant & Co. of Ayr state that they never bothered to import brandy as the legitimate market was ruined by the prices offered by the smugglers in the region:

*...we find that brandy will not do here. [35]*

Organised smuggling had flourished ever since the establishment of an English-style customs service in the North. Initially the distribution centre for smuggling to the west coast of Britain had been the Isle of Man. When the Crown purchased the island's right to set its own duties from the Duke of Atholl (1765) organised smuggling moved the centre of their operation to Ireland from where they ran cargoes to the Ayrshire coast in heavily armed luggers. The isolated beaches from Largs to Ballantrae were utilised in their operations. The most notorious of these sites was the anchorage behind Troon point where landings of contraband were openly attended by the local gentry. The landwaiters appointed to guard the coast invariably arrived too late to deter them. [36]

At sea the interception of smugglers running in from Ireland was the duty of the Revenue and Excise cutters (they were separate services at this time) stationed at Greenock and Millport from where they cruised the Firth and North Channel. Occasionally they were successful; a case in question was the capture of a three-masted lugger off the Mull of Kintyre by the *Prince of Wales* after a chase. The Collector for Campbeltown reported to his superiors in Edinburgh that:

*Captain Campbell believes there may be about two hundred and fifty casks of spirits and thirty casks of tea [on board] but he was not at all certain as part of the cargo had been smuggled in different places, particularly on the coast of Air before he fell in with her. [37]*

The same collector named the Breckenridges of Red Bay as the Irish end of the smuggling operation and Sanda Island, off the Mull of Kintyre, as their usual rendezvous point for their heavily armed luggers known as 'buckers' and their Ayrshire agents:

*... [they have] taken this island as a central situation for the conveyance of their smuggled goods from Ireland to the coast of Air. [38]*

Allegations that Oliphant & Co. of Ayr were the controllers of the Ayrshire end of the distribution network may well be true as they had the expertise and premises to distribute smuggled wine and liquor across Scotland under the guise of legitimate trading. [39] However, the evidence remains largely circumstantial, as the solitary charge of smuggling tobacco made against the captain of the company vessel, the *Buck*, by the Lisbon authorities was put down to the indiscretion of employees over which the firm had little control. [40]

The negative effect of smuggling on the work ethic of the maritime communities was profound. It is quite commendable that most of the ministers reporting to the *Statistical Account* chose to ignore this state of affairs amidst their parish though its impact was acknowledged by other contemporaries. One clergyman who did record the effect of the contraband trade on his flock was the Rev. James Thomson

of Girvan who declared of his town:

*...that habits of regular industry were probably prevented or destroyed by the practice of smuggling, to which the inhabitants were, for a long time, so much addicted. [41]*

The customs officers who sought to suppress this highly lucrative form of economic activity lived in fear for their lives and were a race apart in the community. Given the nature of the job and its temptations the appointment of 'tide' or 'land' waiters was made by personal recommendation as to their honesty and loyalty to the Hanoverian Crown. The letters sent to Edinburgh by the Collector for Irvine frequently questioned the trustworthiness of his officers. [42] Ex-military personnel were the preferred candidates as their martial discipline was considered essential. Most parishes along the Ayrshire coast have legends of clashes between Excise and Revenue Officers and smugglers in which the latter invariably came out on top. [43] The use of soldiers to enforce and safeguard seizures was the final resort when faced with a level of communal violence and what amounted to mass conspiracy on occasions.

If the busiest port on the coast, Saltcoats, is taken as an example of the turbulence caused by illegal trade passing through a harbour then the scale and nature of the problem can be appreciated. In 1730 the collector cited an incident when an attempted seizure of smuggled goods by fifty soldiers, marshalled from their billets in the neighbours towns for the occasion to protect the customs officers, was thwarted by mob behaviour. Their arrival was met by open violence in the streets of the town. This delaying tactic allowed the town's stock of contraband to be shipped out on board the *Moses* of Saltcoats, Captain Auld. [44] In 1757, soldiers were again called out to stop a mob of sailors terrorising the tidewaiters trying to impound:

*...fifty seven bottles of red and white wine. [45]*

Serious assault on tidewaiters was a regular occurrence. In October 1728 a mob attacked the customs officers put on board the smuggler *Prosperity* which had been chased in by a revenue cutter. Weeks later one of the officers was still critically ill. [46] Two years later the newly assigned revenue officer to the port seized some ankers (small barrels) of brandy and was immediately set upon and severely stoned by smugglers intent on reclaiming their property. [47] In December 1765 a warrant of arrest was issued after an assault on a tide waiter involving the 'effusion of his blood'. [48]

Storage of contraband, prior to dispersal, was a major problem for smugglers exploiting the convenience of routing their goods through established harbours. The local historian of Saltcoats, Carragher, (writing in the 1900's) reported that he had interviewed an 'old salt' who had seen the half-flooded cellars, resplendent with rotting barrels from earlier days, beneath the house built in 1710 for Captain Robert Lusk (of the *Robert & Mary*) prior to its demolition. [49] Closely allied to smuggling was fishing as it was a very simple task to rendezvous with a smuggler while fishing off the Scottish coast.

Putting aside such illegal practices, the fisheries was a considerable employer

of capital, men and vessels during the Eighteenth Century. Comments on the industry, however, were usually very limited as the pre-occupation of contemporary writers was mainly with overseas trade. The reporters to the *Statistical Account* were, nevertheless, united in their opinion on three issues that directly affected the development of the local industry.

Firstly, that the inshore fish stocks of all types had been greatly depleted by the mid Eighteenth Century. Fishing activity had expanded rapidly from the start of the century with Irvine exporting 1,618 barrels in 1715. [50] Fish stocks were maintained by the re-appearance of the great herring shoals in the Firth of Clyde in 1730. This had been the first mass visitation in half a century. The peak of the inshore herring fishing was in the late 1740's when the great shoals returned in four successive years to Ayr Bay and off the coast of Arran. [51] This created a short lived bonanza which ended abruptly with the disappearance of shoals at the end of that decade. This dramatic rise and fall of the in-shore industry was typified by the observations of the Rev. Arthur Oughterson of West Kilbride. He believed that his stretch of shoreline had supported, at the beginning of the century, upwards of 30 cobs (oared open boats manned by four men, double this number if fishing the outer firth) who engaged in both herring and cod fishing. By the time of his report, some ninety years later, only a few boats were still fishing and the industry was in terminal decline:

*...since that, no attention has been paid to it, and the art seems now totally lost. [52]*

Secondly, the commentators are in agreement that attempts to compensate for this decline in the fish stock within the Firth by joining in the great off-shore herring fisheries of the Western Isles, and hence capitalise on the Government bounty system (1749 onwards), had not been a success. The failure lay with the lack of expertise of the indigenous Ayrshire fishermen and unsuitability of their vessels to compete against the ubiquitous highland 'herring bus'. The Rev. Dr. James Wodrow identified the problem facing the Saltcoats boats that had attempted the three month season after the bounty had been cut from 50/- to 30/- per tonnage burthen in 1771:

*...the Saltcoats busses are too large, from 80 to 90 tons, navigated by 18 men...whereas the Highland busses are only 60 to 65 tons, navigated by 10 or 11 men. But the principal reason may be that the Highland sailors and rowers are more expert at the business than ours. [53]*

A similar lesson awaited the three 100 ton Saltcoats' vessels sent to the Newfoundland banks during the summers of 1788 - 90. [54]

The third, and final consensus of opinion, was that the only successful branch of the local industry had been the in-shore 'white fish' trade. It had succeeded because the technique of 'hook, line and sinker' used in catching haddock, cod and ling had been imported with the settlement of Scottish east coast fishermen along the Ayrshire coast in the mid Eighteenth Century. Legend has it that the original contingent were the Aberdonian element of the crew of a British man-of-war that

had been paid off on the Ayrshire coast at the end of the Seven Years' War. However, the commentator for Newton-on-Ayr to the *Statistical Account* was more specific and states that his fishermen came from the Parish of Pitsligo having been tempted away from their badly depleted North Sea grounds by the lure of virgin fishing grounds off the West Coast. [55] The minister of Dundonald listed his small society of fisherman at Troon as originating from Elgin. [56] The report from Largs noted their high level of skill and industry was such that their cobs could land 20 stone in weight of fish in a day even though the fish stock had diminished since their initial arrival. [57] With this notable exception the realities of the harsh world of business dictated that, for the remainder of the century, the shipping industry of Ayrshire would specialise in what they were adept at; serving the needs of Greenock and Port Glasgow and carrying coal to Ireland.

## Part Four: Trade in peace and war 1770—1791

By the start of the 1770's port and transport developments were in hand that actively promoted further rationalisation of the trading patterns of Ayrshire shipping. The dredging and removal of sand banks along the River Clyde, from 1773 onwards, effectively ended the carrying trade for Glasgow and Paisley through the port of Irvine. Harbour improvements, however, at Irvine and on the Newton-on-Ayr shore compensated for this loss by facilitating a sustained expansion in the amount of coal exported through these ports to Ireland. [1] Similarly, improvements in local transportation in their immediate hinterland secured the flow of coal to the quayside. The most notable were the making of waggon ways between the Fergushill coalfield at Kilwinning and Irvine and the canalised cuttings (1778) from the new Misk collieries on the Ardeer peninsula to the River Garnock. [2]

While the shipping fraternity of Irvine responded favourable to these developments with an increase in both number and tonnage of vessels, their counterparts at Ayr did not. Indeed, Ayr's tonnage continued in its decline as Irish vessels took up the additional demand placed on shipping created by the new quays (1772) on the north bank which opened up the export market from the Newton-on-Ayr pits. [3]

On the plain of the Auchenharvie coalfield the excavation of a crudely built canal (1772) maintained the Cunninghame's reputation for technical and industrial innovation. Cuttings from the main waterway ran like fingers up to the lip of individual pitheads. From there coal was conveyed by barges (12-15 tons) along the main course to within six hundred yards of the harbour. [4] Grand as the project was it was badly flawed as cutting through the final obstacle of the 'Shott' volcanic dyke proved too expensive for Reid Cunninghame, even with the backing of capital from Patrick Warner of Ardeer. It may well be that his loss of £1000 with the Douglas & Heron Bank crash in the same year curtailed the scope of his ambitions.

The short but expensive trans-shipment and cartage of his coal from the canal to the quayside seriously eroded the benefits gained from canal transportation. This substantially reduced the haulage cost advantage in coal that Saltcoats should have enjoyed over Irvine and Ayr thereby promoting their development at this time. In a pamphlet published in 1801 [5] on this highly contentious issue it was publicly stated that the cost of hauling coal along the canal was just over 3d per ton to which must be added a further 8d for the cartage over the 'Shott' to the quay side. Reid Cunninghame reckoned that if all aspects of handling were considered the cost of a ton 'on board' (28 hundredweight) was more like 1/8d to 2/- per ton. Furthermore, as only 'round coales' commanded the full price (10/- per ton) the additional degeneration of the load to 'small coal' or dross (3/- per ton) created by trans-shipment between barge, cart and ship must have been substantial. However, despite its shortcomings, this canal carried 285,500 tons of coal between 1773-98. [6] The sum total of all this activity was that the coal shipments from Ayrshire promoted the area



*Ayr Harbour, from Wood's Map of 1818.  
(Courtesy of the Carnegie Library, Ayr).*



to second place in the ranks of Scotland's bulk carrying trade [7] with coal constituting 90% of all outward cargoes. [8]

The survival of the accounts of the *Mayflower* of Saltcoats, Captain Robert Kelso, for the period March 1775 to May 1779 gives a valuable insight into the operation of the colliers of this period. [9] She was in the 70-90 tons burthen class and required around 300 cart loads to fill her. This latter figure highlights the scale of cartage involved at Saltcoats. She was exclusively employed on the coal run to Dublin and made nineteen passages during the period of her accounts. An earlier report on an incident of silk smuggling involving her, in 1760, indicates that her hull was at least twenty years old. [10] Her master followed the traditional sailing season laying-up from late December to early April each year which, when added to her wasted time queuing for a loading berth, meant that she spent 50% of her time in her home port.

She was loaded by labourers using 'plank and barrow' and an additional payment was made to have the load evenly distributed to afford her trim and stability when going about in heavy seas. After leaving Saltcoats she made for Irvine to gain customs clearance. This situation has led to assumptions that the tonnage shipping out from the port of Irvine was very much larger.

Having cleared out from Irvine she normally put into Stranraer to take on victuals for the crew which were cheaper than in her home port. The passage to Dublin, under normal weather conditions, took five and a half days on average which would indicate that she 'hoved-to' at night. At Dublin she was obliged to take on a pilot and was allocated a berth in turn for unloading. She invariably returned with a cargo of limestone and sailed directly back to her home port. Her captain then travelled overland to make his declaration to the customs station at Irvine. The general conclusion given by these accounts is that time was not the critical factor in the business calculations of the shipper.

During this period coal prices on the Ayrshire side of the trade were remarkably stable and never varied over the four years in question even though they were war years. Coal 'on board' at Saltcoats was invariably 18d per cart (c. five hundredweight) irrespective of season. The British duty was then 1/- per chalders (Winchester dry measurement of 16 bolls) and a further 8d per Irish ton (22 hundredweight) due to the Irish Parliament at the Dublin end. Occasional charges were 'light duties' and the Lord Mayor's tax for the upkeep of the streets of Dublin. With coal selling at Dublin for a minimum of 16/- per Irish ton this gave on average a profit margin of 60% on the sale of coal from which the costs of the sea passage had to be met. [11] Appendix 4 itemises the expenditure of a typical voyage.

The captain of the *Mayflower* was Robert Kelso (one of a family of shippers) who held a share in the ownership of the vessel. He was responsible for all accounts (other than paying the crew) a service for which he was paid an additional 3/3d per voyage. The 'paying-off' was probably done on shore at the end of each voyage. It would appear from the state of his ledgers that the curriculum of the local school was quite adequate for the combination of elementary book-keeping and seamanship needed. However, this simplistic system of family trust and accountability was to undergo rapid change in the next twenty years.

The catalyst was the upheaval of the 'American War of Independence' (1775-1783) which dealt a body blow to the prevailing mercantilist system and accelerated the shift towards industrialisation and the development of the domestic markets. The immediate impact of the outbreak of this fratricidal struggle was the loss of the American source of tobacco and cheaply built hulls. The first problem had been anticipated by the Glasgow 'tobacco lords' who had been stockpiling for a considerable time but, even so, the reduction of shipping in all aspects of this trade was quick to set in. [12] The experience of the Ayrshire vessels serving the European distribution leg of tobacco trade was, therefore, not traumatic at first. Thereafter, the combination of war and natural attrition, Navy Board demands for transport hulls and loss of business confidence and markets sent the tonnage of Ayrshire shipping into a steep decline until 1781. The related problem, the loss of the source of American built hulls, put a premium on the existing stock, especially after 1778 as losses at sea started to mount.

Unlike the previous wars of this century, Scottish interests and assets were heavily committed in the areas of conflict. Furthermore, given the expanse of the Atlantic the war was fought and lost over the logistics of supply as much as on the battlefield. [12] At sea it was war of attrition in which almost every European maritime nation eventually joined the war on the side of the American Rebels, or took up a stance of armed neutrality, as with the case of Norway and Sweden. The exception was Portugal which remained neutral but friendly towards Great Britain her traditional ally since 1705.

The war at sea was officially declared against His Majesty's rebellious American subjects in April 1777; war against France was declared in August 1778; Spain in June 1779 and Holland in December 1780. With the entry of each new adversary further overseas markets were closed to Scottish traders which forced the laying up of vessels. Aggravating this problem was the arrival of American privateers in Scottish waters which created widespread alarm along the Ayrshire coast and the Clyde in general.

The American captains, led by the Dumfriesshire born John Paul Jones, were based in France and frequently commanded ex-French naval craft which were very much more powerful than the small French privateering luggers and cutters of the previous wars. The first 'visit' was the raid on the Solway coast by Paul Jones in 1777 which opened the way for others. Such incursions into Scottish waters reached a peak during the years 1779 and 1780. Their objective was to wage economic war on Britain and create as much chaos as possible. The experiences of Captain Andrew Kirkwood of the Saltcoats brig *Elizabeth and Peggy*, during his passage back from Christiansand with deals, illustrates the vulnerability of the north to this form of warfare:

*...on the 9th [August 1779] we fell in with the Rising Sun privateer of Dunkirk, 20 guns of 9 pounders, off Buchanness, and after long consideration with the captain of the privateer at last ransomed the vessel for 120 guineas and took one of the seaman as a ransom. On the 12th we unluckily fell in with the Fearnought of Dunkirk, Luke*

*Ryan Commander, and as the crew found that the vessel was already ransomed a few days before they plundered her of everything that could belonging to master and men. On the 15th we fell in with John Paul Jones as Commodore of three frigates when the vessel was plundered a second time and all the clothes, liquors and 10/- in silver taken from the crew. [13]*

The Clyde was put into a state of high alarm by the expectation of a 'visit' from the American Luke Ryan whose progress had been well charted by the lowland newspapers as he cruised up the East Coast of Scotland and round the Western Isles leaving a trail of havoc, wrought by his landing parties, behind him. [14] His vessel, the *Fearnought*, was well suited for inshore work as she was a fast cutter mounting 16 guns and manned by an international crew numbered 96, of whom 45 were Irish or American and the rest French, Spanish, Italian and Portuguese.

The terror created by his actions far outstripped the actual damage he managed to inflict. With his 'visit' to the Clyde expected daily local defences were hurriedly assembled and the guard ships at Campbeltown and Stranraer put in a state of readiness. While the local militia patrolled the Carrick coast HMS Sloop *Childers* and escort the cutter *Pilotte* put out into the lower Firth from Loch Ryan under the command of the Honourable J.W. Chetwynd, R.N. His intention was to exercise his crews in a mock skirmish prior to engagement with the enemy. However, the practice firing of cannon between the two vessels placed the whole coast in state of alarm that brought out the convoy escort HMS *Satisfaction* from Greenock and the visiting warships HMS *Boston*, *Stag* and *Ranger* from Campbeltown. The fiasco ended in the *Childers* being holed by shot and boarded. [15] Ryan eventually arrived off the Clyde that winter and landed a party at Galloway that looted a house before being captured. [16] A naval frigate chased him out of Scottish waters immediately afterwards.

While the 'visit' of Ryan's cutter had been the cause of widespread disruption to shipping in the Clyde, the expectation of the return of John Paul Jones' squadron was the trigger for large scale preparations. The anticipation of a repeat of his cruise that had raided the Firth of Forth, the previous August, was the scenario for which the defences were raised. In that 'visit' he almost came within range for bombarding Leith and had only been checked by contrary winds. Should he make an appearance in the Clyde it was presumed that Greenock and the anchorages of the upper Firth would be his ultimate target. Coastal batteries were raised at enormous expense to the public purse at Greenock (Fort Jarvis), at the Tan between the two Cumbræes and on the raised beach behind the residence of Reid Cunninghame, Seabank House. This last battery of two cannon was intended to defend the Auchenhavrie coalfield from bombardment. Such defences were never tested in battle as Paul Jones failed to return to Scottish waters after his famous engagement with HMS *Serapis* off Flamborough Head in the North Sea in September 1779. [17]

War also produced business opportunities for the hawks amongst the merchant community. The arrival of convoys in the Clyde created famine and glut on the lowland commodity markets which actively encouraged highly speculative solo passages to catch the high prices between convoy sailings. These traders were well

armed 'running ships' and carried a privateering 'letter of marque', in case the opportunity of a prize should present itself. The earliest local examples of such commissions were those granted to the masters of two Ayr vessels intent on sailing into hotly disputed waters in the months immediately following the entry of the French into the conflict. The first set of 'letters' were issued to Captain James Park, master of the large cutter *Royal George* (100 tons) bound for Jamaica with Osnaburgs (coarse linens) and woollen goods for the owner, Thomas Clark of Glasgow. The other commission was granted to Captain Alex Learmouth, master of the brig *Speedwell* (120 tons) bound Ayr to Gibraltar with provisions for the garrison and owned by John McCulloch & Co., of Ayr. Both vessels were manned by abnormally large crews (50 and 60 men respectively) who were heavily armed with cutlasses and pistols. The *Speedwell* was particularly well fitted out with fourteen carriage cannons of a mixed calibre ranging from nine to four pounders. [18] Whether or not they got through to their declared destinations is not known.

The other Ayrshire masters and owners apparently had no interest in this type of venture until the Dutch joined the list of adversaries. Dutch vessels were the most efficient traders in Europe with a very low crew to tonnage ratio which had been achieved at the sacrifice of defence capability. In addition there was the prospect of raiding the Dutch herring busses, whalers and East Indiamen that frequented Scottish waters in wartime. The combined effect was a "mania" for privateering across Scotland in which most ports fitted out a laid-up hull as a privateer during the winter of 1780/1. The communities of Ayr and Irvine were no exception.

The new wave of Ayr privateers were fast small 'running ships', the *Greyhound Cutter* (50 tons) and the *Olive Branch* (40 tons) [19], the first of which had been regularly employed by Oliphant & Co. [20] Both were fitted out in January 1781 to 'cruise' against the Dutch while running to Lisbon. The *Greyhound Cutter* was owned, very interestingly, by the Breckenridges of Newton-on-Ayr and skippered by Thomas McClymont. She had the pedigree of a smuggler equipped as she was with four four pounders and eight swivel guns and manned by 35 men when she cleared out of Girvan in search of Dutchmen. The *Olive Branch* was owned by John Hunter & Co. of Ayr and skippered by Thomas Morrison. Being that bit smaller she only carried two four pounders and sixteen swivels and was crewed by 25 men. She was lost off the Irish coast within days of sailing. [21] Her sister ship survived that winter but does not seem to have been successful in taking any prizes.

Irvine also fitted out a 'letter of marque' ship in 1781, the *Fox* (120 tons), which ran to New York with baled goods and provisions under the command of Captain Patrick Montgomery. As the crew size was only 16, not enough to man her ten four pounders or provide a prize crew, it can be presumed that she had no serious intention of cruising as a privateer. [22] Her fate remains unknown.

Saltcoats would appear to have ignored the dubious attractions of such speculative ventures and concentrated on the profits to be made from shipbuilding instead. The demand for new hulls had been greatly stimulated by the war:

*The Saltcoats people finding an increasing demand for ships, which they could not build in America, nor buy at the time in Britain but at a high price, were naturally led to attempt to build them themselves,*

*their harbour being remarkably convenient for launching them ... in a place where scarce a boat had been built before three carpenter's yards were set up one after the other, which have gone on successfully ever since. [23]*

The first decked vessel was built there in 1772 [24] which indicates that the expertise was available before the opportunities created by the hostilities appeared. The raw materials were imported; by annual shipment of hemp from St. Petersburg and bar iron from Gottenburg; three cargoes of spar and mast timber from Memel and as much oak planking from South Wales as required. [25]

The output from these yards was very prolific as, between 1775-90, they produced 64 vessels totalling 7095 tons [26], a figure that virtually equalled the combined fleets of Irvine and Saltcoats then afloat. The largest hulls built were of 220 tons and required a spring tide to slip them out the harbour to the foreign buyers in England, Ireland and Spain. At the height of the boom 60 men worked in the yards while 25 men were employed in a rope-yard manufacturing halyards, sheets and cables from Russian hemp. [27]

Similar developments happened at Irvine and Ayr though on a much reduced scale. Again an embryonic shipbuilding industry had existed at these ports prior to the surge in war demand for hulls. In the Liverpool Plantation Registers, the *John* (details unknown) was described as "Irvine O[ld] B[uilt]" and was later re-built elsewhere in 1773. [28] By 1791 there was a ropery and three shipbuilding masters catalogued as resident in Irvine. [29] The building of the *Buck* at Ayr by John Fraser for Oliphant & Co., in 1767, has already been mentioned and the new ropery is evident in Armstrong's map of the town (1775). The *Statistical Account* for Newton-on-Ayr noted that, after the war, the ropery employed ten hands while the ship yard employed 50 men full time. [30]

However, by the end of 1780's the boom was over and even the Saltcoats' yards were in decline by 1791:

*There are not so many at work [shipbuilding] at present, as the demand is less than formerly. [31]*

The size of hulls was on the increase and the limitations of Saltcoats were insurmountable. Along with the general drift of shipping to Greenock went the best shipbuilders of Saltcoats, the most famous being Robert Steele (1745-1830) who, alongside his father, learned his trade at Saltcoats. He moved to Greenock after his father's death and, in 1796, entered in partnership with John Carswell. Between 1796-1816 the company of Steele & Carswell were the finest builders of ships on the Clyde, launching twelve full-riggers. [32]

Similarly, the business practices of shipping had perceptibly changed since the voyages of the *Mayflower*. The accounts of Captain James Kelso for his voyage on the rum trade to the West Indies on the *Peggy* (c.250 tons) [33] in 1793 and on the *Alexander* (c.180 tons) on the coal run to Dublin in 1796 reflect that of an accountable employee rather than a trusted part-owner. The crew's wages were accrued monthly instead of a fixed payment per passage. The ship's boys were now indentured apprentices under articles as directed by the Commissioners of the

Treasury for any vessel over 80 tons. In the coal run the Dublin agents, Nowlan, Dykes, Toole & Booker now handled the sale of all Irvine and Saltcoats coal by agreement with the shippers for a 5% commission. [34] The most obvious change was the tonnage of his vessels which was now greater that could normally work into Ayr or Irvine. The *Alexander* could only use her home port because of Reid Cunninghame's new extended pier. His other charge, the *Peggy*, sailed from Greenock after re-fitting there. [35]

Reid Cunninghame's belated attempt to discipline the shippers using his port by acquiring shares in eight of the larger colliers, particularly the *Agnes*, the *Lively* and the *[Wee] Industry* was, perhaps, inopportune. [36] Furthermore his decision to give them loading berth preference and sail them over the winter lay-up signalled to the shipping fraternity his intention to have them subservient to the needs of his collieries. With the opening of new wet dock harbours at Ardrossan (1806) and Troon (1808) his shippers deserted him. Some of the notable Saltcoats captains that moved on up the coast were the Ritchies (later major entrepreneurs in the fishing industry), the Allans (the Allan Line) and the Smiths (the City Line).

His other scheme, the building of a tramway between the canal and the quay, came too late to defer the inevitable obsolescence of his harbour operations. As with Irvine and Ayr, Saltcoats was eclipsed by the new technological advances of the railways and steam ships that ran to a timetable irrespective of tide or wind.



## Appendix 1

## TONNAGE

The concept of 'tonnage burthen' was based on the carrying capacity of a hull rather than its displacement weight. Under the act of Parliament 6 William & Mary a common method of measurement was laid down. The calculation was based on a 1694 formula of internal measurements:

*the tonnage equals the length of the keel within the board, by the midships beam from plank to plank, multiplied by the depth of the hold from the plank below the keelson to the under part of the upper deck plank, divided by 94.*

By a further act, 15 George III, this format was extended to all ports of Great Britain. There were numerous variations to this formula throughout the century which used external rather than internal measurements, the most important being 'Carpenter's tonnage' or 'Old Law' tonnage.

As a vessel's declared tonnage burthen was the basis for setting insurance rates and charging harbour and light dues the temptation for a captain to over or under state her tonnage were very strong. To combat this widespread abuse the customs service was obliged to inspect hulls at random, measure their dimensions, formulate their correct tonnage and check against her master's declaration. An example of this practice was the *Saltcoats* (of the same port); she was measured as 54 feet in length, 18 feet 7 inches in the beam which computed to 78 & 1/2 tons. She was the first decked vessel built at Saltcoats and was crewed by 17 men.

Nevertheless, as with all statistics for this period, a fair degree of accommodation must be exercised when considering the accuracy of such information. It is quite common for reports for the same vessel to fluctuate as much as 20% between different sources of information.

## Appendix 2

THE TOBACCO FLEETS OF AYR,  
IRVINE & SALTCOATS

The 'regular' Ayr vessels were:

*The Speedwell*. (85 tons/ Irish built 1734). She made, under Captain Patrick Montgomery, one voyage to Antigua for rum then on to the Rappahannock and back to Ayr with 183 hogsheads of Virginian tobacco in 1740. A vessel of this name is listed by Pagan, in 1735, as trading to Jamaica under the command of James Colhoun for Messrs. Oswald & Co.

*The Prosperity*. (55 tons/ Irish built 1729). She made one voyage, under Captain Adam Doak, first to Barbadoes and then on to the Rappahannock for tobacco for William Cunninghame & Co. in 1743.

*The Friendship I*. Under the command of Captain John Aiken she made a passage to Virginia in June 1743.

*The Friendship II*. (85 tons/ Boston built 1746/ snow [a variation of brig]). She was one of the most consistent performers working out of Ayr. Under Captain Hector Armour she made two passages to the Potomac for James Hunter & Co. (1754-55). Under John Aiken & Co.'s ownership she made five passages to the same river under the command of James Moodie (1756-70). Her cargo reports were in the 260-280 hogshead range. (See *Hope* for career of Hector Armour 1758-69)

*The America I*. (90 tons/ Boston built 1734/ ship). Under the command of John Francis (one time skipper of the *John* of Irvine), she made five passages to the Chesapeake 1747-1756. The first two voyages (1747/8) were for John Hunter & Co. and the remaining three (1754/6) for the owner William Reid. She returned with c.235 hogsheads each trip.

*The America II*. (150 tons/ Plantation built 1759/ ship). She was the biggest hull to use Ayr in this trade. Her maiden voyage delivered 465 hogsheads to Port Glasgow before being acquired by James Hunter & Co. Under the command of John Francis (one time skipper of the *John* of Irvine) she made an Atlantic passage returning to Ayr with 321 hogsheads of tobacco in 1761/2. Thereafter, she was commanded by Robert Parke and made five more crossings (1765-1771). Only once, in 1768, did she return to Ayr, with a cargo for William Ballantine & Co. The rest of her voyages terminated at Port Glasgow or Greenock.

*The Adventure*. (110 tons/ Plantation built 1752/ snow). She would appear to have been built for her captain and owner John Montgomery and made four

other passages to the Potomac between 1752-1757. She carried around 290 hogheads each voyage.

The *Amity*. (100 tons/ Plantation built 1747/ snow) made two passages under her captain and owner William Reid (1752-1753) and one under Captain Allan Boyd (1755). Her only recorded cargo was 243 hogsheads on the last voyage.

The *Concord*. (100 tons/ Boston built 1751/ snow). She made two voyages from Ayr to the Potomac under Captain Hugh Moodie for William Cunninghame & Co (1754-55). Under the direction of James Ritchie & Co. and Captain James Orr (one time master of the *Elizabeth & Jannet* of Irvine) she sailed to Campvere (1753) and made two passages to Virginia returning to Greenock on both occasions (1755-6). She may be the same vessel that, under Captain Abraham Russell, undertook a run to the Chesapeake for Jo. Aiken & Co. in 1775.

The *Hope*. (140 tons/ Boston Built 1758/ snow). She was the replacement for the *Friendship II* when acquired as a new vessel by James Hunter & Co.'s fleet. Captain Hector Armour (ex-*Friendship II*) was master throughout her complex history (1758-69). She made at least seven crossings to Virginia from Ayr with diversions to Le Havre, Bordeaux and Belfast. Occasionally she returned to Port Glasgow rather than her home port. Her cargo reports were in the 300-310 hogsheads range.

The *Judith*. (74 tons/ Plantation Built 1750/ sloop). Owned by David Galloway & Co., she made two passages; one under the command of Captain John Hunter to Barbados and the Potomac and the other under Captain John Sedgewick to Maryland. Both voyages were commenced in 1755.

The *William I*. (70 tons/ Boston built 1750/ snow). She made two passages under Captain Thomas Ritchie. On the first she left Ayr in ballast, presumably to load elsewhere, and then on to the Potomac in 1758. She returned to her home port with 194 hogsheads. Her second voyage was to the same river via Barbados in 1760, returning to Ayr with 188 hogsheads.

The 'single passage' Ayr vessels were:

The *Success*. (70 tons/ Irish built 1748/ snow). She undertook one voyage from Ayr to the James River under Captain James Robertson for the owners John Donaldson & Co. in 1757/8 returning to Port Glasgow. She carried 156 hogsheads on that occasion.

The *William II*. (140 tons/ Plantation built 1765). She made one passage under her owner and Captain William Fulton, from Ayr to the Rappahannock, back to Port Glasgow with 348 hogsheads in 1766 and then on to Bordeaux.

The 'regular' Irvine vessels were:

The *Montgomery*. (70 tons/ Plantation built 1738) She made two voyages under her owner and captain, William Montgomery. One to the Rappahannock and back to London with 204 hogsheads of tobacco in 1740. The other from the Clyde to the same river and back to Port Glasgow the following year. Under Captain James Montgomery she made two similar passages in 1742/3 and 1746/7 before she passed under the command of Captain David Dunlop and the direction of William Dunlop & Co. and made three more Atlantic crossings to Virginia 1746-49. She laid-up at Saltcoats during the winter of 1749/50 then returned to Port Glasgow in March to load tobacco for Hamburg. The following winter she laid-up at Irvine. Her last known passage carrying tobacco was to Campvere in 1756 under the command of Robert Montgomery.

The *Olive*. (Details unknown). She arrived at Port Glasgow from Virginia in September 1747 and has a sketchy history under different captains which included; once being stranded (1752), a passage to Hamburg in 1753 and a run to Virginia in 1757.

The *Jane & May*. (Details unknown). She arrived at Greenock from Virginia 1750 and made four more runs to the Chesapeake in quick succession between 1750-53 under Captain John Rodger.

The *William*. (100 tons/ Plantation built 1749). She made three known Atlantic crossings by 1760 mostly under the command of her captain and owner John MacLean. Her only cargo report was for 277 hogsheads.

The *Robert*. (80 tons/ Liverpool built 1751/ brigantine). She was owned by David Drew & Co. worked out of Port Glasgow and made two passages to Virginia (1757 & 1765) between voyages to Morlaix, Hamburg and Rotterdam, all under Captain James Boyd.

The *Jenny*. (130 tons/ Plantation built 1749/ ship). She was initially owned by James Montgomery & Co. of Irvine but sold to James Glassford & Co. and re-registered at Greenock in 1756. She was the most hard worked of all the Irvine vessels making three Atlantic crossings for her Irvine owners, including a triangular route via the Isle of May (Africa) under the Captain Alexander McTaggart. Under Glassford's directions and his crack captains she made nine more crossings and sailed under letters of marque during the 'Seven Years War'.

The *James & Nancy*. (70 tons/ Boston Built 1750/ snow). Her career displays an interesting feature in that she was one of two Irvine vessels that supplied Ayr's own resurrected tobacco industry and made two passages to the Potomac (1754-57) under the command of owner and Captain John Ritchie, who is listed in the 1737-40 harbour accounts of Saltcoats (hereafter referred to as 'listed').

The *Girzie*. (50 tons/ Philadelphia built 1750/ snow). She was the other vessel that made a solitary run out from Irvine to the Potomac and back to Ayr in 1754 under Captain John Cameron for William Blair & Co. There

is also a newspaper report of a 'Grizie of Saltcoats' sailing to Philadelphia under John Lament for an Irvine owner Thomas Reid in March 1755 that may well be the same vessel.

The *George & Mary*. (70 tons/Irish built 1738). She made two passages to Virginia under listed Captain James Cunninghame. The first voyage was from Irvine to France then on to Barbados and the Rappahannock before returning to Greenock with 177 hogsheads in 1740. The second was a direct run from the Clyde. Between 1741 - 1751 she made regular passages to Norway and Holland with tobacco.

The 'single passage' Irvine vessels were:

The *Elizabeth & Jannet*. (71 tons/Liverpool built 1748/brigantine). She made one voyage, under Captain James Orr, to the James River and was stranded on Islay on the homeward passage with 144 hogsheads in 1758.

The *John & Archibald*. Under the command of listed Captain James Glasgow she made one run from Virginia in 1754.

The *John & Robert*. Under the command of Captain Robert Craig she made one run back from Maryland in 1750.

The *John*. Under the command of Captain John Francis she returned from Virginia in 1748 and thereafter spent her time in the tobacco trade running to the northern European ports of Bremen and Campvere (1752-53). It is possible that she was the same *John* of Irvine that appears in the Greenock Customs records as arriving from Norway in 1743.

The 'regular' Saltcoats vessels were:

The *Eglinton*. (110 tons/British built 1734). She made five passages from Port Glasgow to the Rappahannock and back between 1739 and 1747. The first three voyages were under listed Captain William Dunlop. His best cargo was 285 hogsheads.

The *Susanna*. (90 tons/Boston built 1736). She made four crossing to Virginia and Maryland between 1742-49. Her first captain and owner, William Galt (sometimes described as of Irvine and possible relative of the novelist John Galt) was also listed in the harbour accounts. Her subsequent masters were John Heastie and listed William Service. Her best cargo report was 274 hogsheads.

The *Tryall*. (70 tons/British built 1729). She was initially registered as 'of Irvine'. She made four passages to Virginia (1742-47), including one via the Isle of May (West Africa) for salt. Throughout her career she was under the command of listed Captain Robert Steele.

The *Annabella*. (80 tons and described as a 'Snow'). She made four passages to Virginia between 1743-52 initially under her listed Captain Robert

Hamilton. Her best cargo report was 272 hogshead.

The 'single passage' Saltcoats vessels were:

The *Francis & Elizabeth*. (c.80 tons). Under listed Captain William Service she was captured off Newfoundland (1744) on her passage from Dumfries to Virginia. After her cargo was taken she was sunk by her French captors.

The *Thistle*. (110 tons). She made her only trans-Atlantic crossing under her listed Captain Robert Brown in 1743. On her return she transhipped tobacco at Port Glasgow and carried a cargo to Rotterdam.

The *Helen*. She arrived from Maryland in 1753 under Captain John Gillies before making a passage to Morlaix in France.

The *Archibald*. She made a solitary entry on her arrival from Virginia in 1748 under the command of listed Captain Robert Crawford.

The *Sarrah*. Under the listed Captain John Wylie, she appears in the 'Outward' Collectors Quarterly Accounts for Port Glasgow, in 1744, clearing for Bremen with 160 hogsheads of tobacco.

Other vessels that had a connection with trading in tobacco from an Ayrshire port were:

The *Kingston* of Greenock. (75 tons/Plantation built 1754). She made one passage out of Irvine to the Rappahannock in 1760 and then back to Port Glasgow under the command of Captain James Montgomery.

The *Minerva*. (110 tons/Plantation built 1768/ship). She was originally registered at Ayr by her owner and captain, James Rankin, and left Ayr for the James River on the same day, in October 1768, returning to Port Glasgow. Thereafter, she worked the triangle trade between the continent, Virginia and Greenock under Rankin until 1772.

The *Lark* of Irvine. (details unknown). She made a passage to Rotterdam under Captain John Fulton and returned to Port Glasgow in 1774.

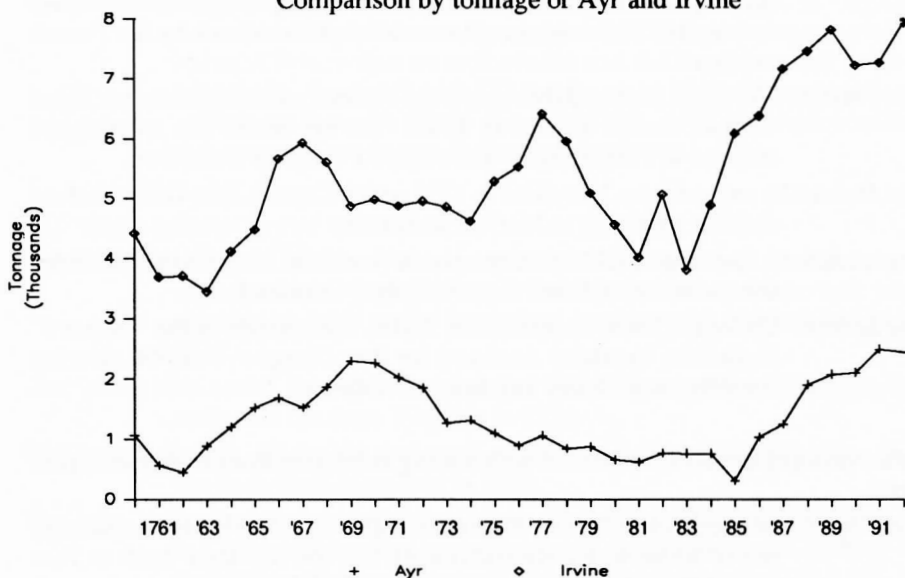
The *Mercury*. (50 tons/Plantation built 1736) Listed initially as 'of Saltcoats' and thereafter as 'of Irvine' under Captain Henry Laird in the shipping intelligence. Colonial customs list her as 'of Port Glasgow' under the same skipper. She made two passages to Virginia, 1740 and 1745. Between times she ran tobacco to the Northern European ports, mainly Rotterdam. Her owner was listed as Richard Oswald (of Auchencruive) & Co, which greatly strengthens the case for her home port being an Ayrshire one.

Sources: PRO CO5/1443-50, Naval Officer Accounts; SRO E.504/15&28 series, Port Glasgow & Greenock Port Books Outwards; PRO HCA/26, letters of marque; *Glasgow Journal*, Shipping Intelligence, 1741-50.

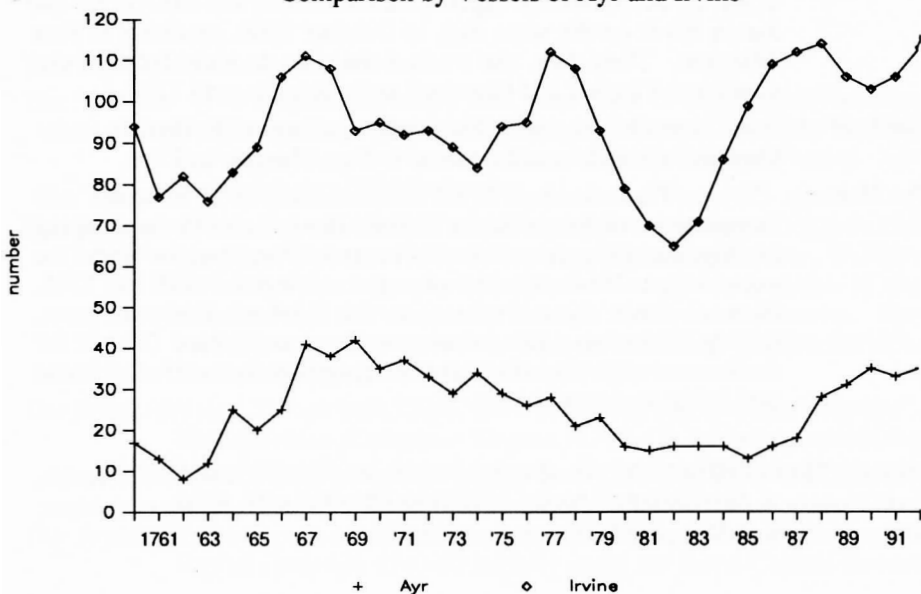


## Appendix 3

Comparison by tonnage of Ayr and Irvine



Comparison by Vessels of Ayr and Irvine



## Appendix 4

THE ACCOUNT OF THE EXPENSES  
OF THE MAYFLOWER C.1775

At Saltcoats: Outwards	£.	s.	d.	£.	s.	d.
Anchorage		3	9			
Harbour dues		9	0			
At Irvine:						
Sailing penny		2	0			
Cargo duty	1	16	0			
Harbour duty		15	11			
Total:	3	6	8	3	6	8
At Saltcoats: Inwards						
Ballast casting out		6	0			
Labour for loading		1	6			
Plank & barrow		1	3			
Shifting coals		2	0			
Travel to Irvine Customs		2	0			
Total:		12	9	3	19	5
At Dublin: Inwards						
Pilot (varies a few pennies)		9	6			
Land Office		6	6			
Coal Duty @ 7&1/2d per ton	2	6	0			
Lord Mayor's duty		2	6			
Bond & Clerk		1	7			
Rings end (mooring on average)		4	4			
Light Duty (infrequent)		4	5			
Total:	3	14	10	7	14	3
At Dublin: Outwards						
Ballast Office	2	0	0			
Quay ell (unknown)		1	1			
Landing & planking		3	10			
Jirker's Office (labourers)		0	6			
Boats on river		4	2			
Gabertmen (lightermen)		8	1			
Commission to agents (total)	1	11	3			
Total:	4	8	11	12	3	2

Source: NAM, *Accounts of Robert & James Kelso*, unlisted.

## REFERENCES

### Part One

- At the time of my research of the Auchenhavie missives the reference system was still in the old format which is quoted throughout. [C]unningham [D]istrict [C]ouncil, Auchenhavie MSS, box 22, bundle 3.
- I am indebted to Richard F. Dell for the information for this (and the following two) reference(s). Stranding report, *Glasgow Journal*, 10 January 1767. See: [P]ublic [R]ecords [O]ffice CO5/1443-50, Naval Officer Accounts, for her voyages.
- Stranding report, *Glasgow Journal*, 29 November 1769 followed by salvage report 4 January 1770.
- [O]ld [S]tatistical [A]ccount, reprint edited by D.J. Withrington and I.R. Grant (Wakefield 1982), Vol. VI, Parish of West Kilbride, p.278.
- J. Fergusson, 'A Wine-Merchant's Letter-Book', *Essays Presented to Sir Lewis Namier*, edited by R. Pares and A.J.P. Taylor, (London 1956), reprinted by [A]yrshire [A]rchaeological & [N]atural [H]istory [S]ociety Collections, Vol IV, p.219.
- OSA, Vol. VI, Parish of Stevenston, p.581.
- See appendix 1 for tonnage measurements.
- CDC, Auchenhavie MSS, box 22 bundle 3, handwritten commentary on reverse of pamphlet.
- Ibid.
- OSA, Vol. VI, Parish of Dundonald, p.179.
- For an analysis of vessel utilisation see: R.F. Dell, 'The Operational Record of the Clyde Tobacco Fleets, 1747-1775', *Scottish Economic and Social History*, 1982.
- [S]cotish [R]ecords [O]ffice, Collectors Quarterly Accounts for Port Glasgow and Greenock 1743-44, E 504/15/1-2 & E 504/28/1-2.
- SRO, Customs Records of Irvine, CE/71/1/1, entry dated 10 September 1757, lists the clearing "the Molly of Port Glasgow" from Saltcoats "with 26 tons of coal for the use of the lighthouse lately erected there."
- G. Blake, *Clyde Lighthouses*, (Glasgow 1950).
- Act of Parliament, 22 Geo.III. c25.
- Act of Parliament, 27 Geo.III. c52.
- OSA, Vol VI, Parish of Ballantrae, p.46.
- OSA, Vol VI, Parish of Ayr, p.36.
- CDC, Auchenhavie MSS, box 22, bundle 3.
- OSA, Vol VI, Parish of Stevenston, p.581.
- J. Strawhorn, *The History of Ayr*, (Edinburgh 1989), p.99.
- OSA, Vol VI, Parish of Dundonald, p.180.
- On Ayr harbour see: H. McGhee, 'The Harbour', *The Royal Burgh of Ayr*, edited for the AANHS by A.I. Dunlop, (Edinburgh 1953) and Strawhorn, *The History of Ayr*. On Irvine harbour see; A.F. McJannet, *Royal Burgh of Irvine*, (Glasgow 1938) and J. Strawhorn, *The History of Irvine* (Edinburgh 1985). On Saltcoats see: E.J. Graham, 'Saltcoats - a pre-railway coal port.', *Scottish Industrial History*, Vol 2.1, 1978.
- OSA, Vol VI, Parish of Newton-on-Ayr, p.494.
- Ibid, p.495.
- OSA, Vol VI, Parish of Ayr, 25.

- For examples see: McGhee, *The Royal Burgh of Ayr*, p.207 and Strawhorn, *The History of Irvine*, p.76.
- Letter from Dr. John Campbell to William Alexander of Blackhouse coalmaster in 1770 as quoted by C.A. Whatley, 'Coal Mining Enterprise in Ayrshire c.1600-1840' *AANHS*, 1983, p.92.
- OSA, Vol VI, Parish of Stevenston, p.594.
- The dividing line is plainly evident in the contemporary maps of the town. See for example the Eglinton Estate Plan Book of 1789 published in Whatley, p.102.
- OSA, Vol VI, Parish of Stevenston, p. 616.
- Graham, 'Saltcoats', p. 25-26.
- North Ayrshire Museum, MSS unlisted, 'Account book of Anchorage fees and harbour expenses 1738-40.
- Ibid.
- Ibid.
- Ibid.
- To all practical intent the cartage of low cost bulk was limited to around three to five miles from a seaport during this period.
- OSA, Vol VI, p.7.
- OSA, Vol VI, Parish of Stevenston, p.614.
- OSA, Vol VI, Parish of Kilbirnie, p.263

### Part 2

- W.C. Dickinson & G.S. Pryde, *A New History of Scotland* (Edinburgh 1962), ii, 74.
- 'Reports made to the Convention of the Royal Burghs in Scotland in 1692' *Miscellany of the Scottish Burgh Records Society*, ed. J.D. Marwick (Edinburgh 1881), xiii.
- Ibid, p.78.
- T.C. Smout, 'The Overseas Trade of Ayrshire 1660-1707', *AANHS*, Vol 6.
- The newspapers I have consulted for 'shipping intelligence' for the period up to 1713 are the *Scots Courant*, the *Scots Post Boy* and the *London Gazette*.
- J. Spreull, *An Account Current Betwixt Scotland and England, 1705*.
- British Library, Harleian MSS 6269, list of Scottish vessels compiled for Whitehall by the Scottish Customs Service 1723/4.
- Author unknown, 'Notes on the History of the Burgh Cess or Stent Tax, payable by the Town of Saüüüÿl{x}y{-lxyzy{x}} of Ardrossan and Stevenston, 1710-1896', *Quater Centenary*, (Saltcoats, undated), ed. O. Kelly, p.19.
- Ibid.
- Strawhorn, *The History of Ayr*, p.95.
- See ibid, p.96-8 & Whatley, 'Coal Mining Enterprise' III.
- See for statistics of coal exports: L.E. Cochran, 'Scottish Trade with Ireland in the Eighteenth Century', (unpublished Ph.D., University of Stirling, 1980), Vol 2, Appendix 552.
- Sir Robert had been give the authority to levy a duty on all ale consumed in the Burgh for 19 years as payment under the Act of Parliament granting permission to build the harbour.
- CRO, Lowther MSS dated 13 August 1723, as quoted by Whatley, 'Coal Mining Enterprise', p. 94.
- L.M. Cullen, *Anglo-Irish Trade Trade, 1660-1800*, (Manchester 1968), 127.

16. CDC, Auchenharvie MSS, Bundle 33 (2), Tack by John Reid to the Saltcoats Fishing Company of a piece of land at Saltcoats to dry fish.
17. McGhee, 'The Harbour', p.201.
18. CRO, Lowther MSS. C.1723, as quoted by Whatley, 'Coal Mining Enterprise', 92.
19. North Ayrshire Museum, unlisted MSS, which is the account book of anchorage fees and harbour expenses 1738-40. It was in a display cabinet at the time of my research.
20. This assumption would give a range of vessel sizes that corresponds to the known limitations of the harbour and is generally substantiated by other references to individually listed vessels tonnage.
21. See Appendix 2 for examples and reference.
22. CDC, Auchenharvie MSS, Bundle 15, (6), Letter from Reid Cunninghame to Warner.
23. Harbour Accounts, entry dated 17 July 1739.
24. Strawhorn, *The History of Irvine*, p.76.
25. CDC, Auchenharvie MSS, Bundle 17, Petition to the Commissioners, 1811.

### Part Three

1. See: Smout, 'Overseas Trade of Ayrshire'.
2. Ibid, p.75.
3. See: E.J. Graham, 'In Defence of the Scottish Maritime Interest 1688-1713', *Scottish Historical Review*, (accepted for publication, provisional dates October 1991 / April 1992).
4. *[R]egister of the [P]rivy [C]ouncil of [S]cotland*, ed. P. Hume Brown, (Edinburgh 1909), Series iii, Vol. xiii, p.392.
5. *RPCS*, vol.XIII, p.451.
6. Smout, 'Overseas Trade of Ayrshire', pp.63-7.
7. McJannet, *The Royal Burgh of Irvine*, p.251-2.
8. For an example of the capture of an intruder in the Clyde see: Scots Courant, report dated 17 August 1711.
9. P. Crowhurst, *The defence of the British Trade*, (London 1977), pp.349-351.
10. D. Defoe as quoted by G. MacGregor, *History of Glasgow*, (Glasgow 1881), p.307.
11. The newspapers consulted are: *Edinburgh Courant*, *Edinburgh Gazette*, *Scots Courant*, *Scots Post Boy* and *London Gazette*.
12. *Scots Courant*, report dated 17 December 1711.
13. D. Fraser, *The Smugglers*, (Montrose 1971), p.108.
14. J. Strawhorn, *750 years of a Scottish School*, (Ayr 1983), p.20.
15. *OSA*, Vol VI, Parish of Ardrossan, p.4.
16. *Quater Centenary* (Saltcoats, 1928), Insert B.
17. J.M. Price, 'The rise of Glasgow in the Chesapeake tobacco trade, 1707-75', *Studies in Scottish Business History*, (London 1967)
18. See appendix 2.
19. [P]ublic [R]ecord [O]ffice, CO5/1443-50, Naval Officers Accounts.
20. Strawhorn, *History of Ayr*, p.95.
21. See appendix 2.
22. Mitchell Library, Shawfield MSS, B10/15/6710.
23. *Glasgow Journal*, reports 20 January 1740 - 22 July 1743.
24. For full details of her voyages, fitting out, wages and running costs see: E.J. Graham,

- 'Saltcoats - a pre-railway coal port', B.A. Honours Dissertation (University of Strathclyde 1976), pp. 40, 58-59.
25. *Glasgow Journal* and *London Gazette*, successive reports commencing February 1741.
26. *Glasgow Journal*, successive reports commencing 15 August and concluding 11 December 1742.
27. See appendix 1.
28. *OSA*, Vol VI, Parish of Irvine, p.245.
29. Fergusson, 'A Wine-Merchant's Letter-Book', p.218.
30. Ibid.
31. The most accessible studies of this topic are those by H.M. Customs & Excise archivist, Graham Smith, *Something to Declare*, (London 1980) and *King's Cutters* (London 1983).
32. J. Paxton and J. Wroughton, *Smuggling*, (London 1971), p.24.
33. Ibid, p.33.
34. D. Macpherson, *Annals of Commerce*, (Edinburgh 1805) Vol. IV, p.49.
35. Fergusson, 'A Wine-Merchant's Letter-Book', p.221.
36. The absence of reports of successful convictions from the Customs Records reinforces this point. However, it may be the case that Sheriff Court Records exist that would contradict this conclusion.
37. Dunoon Library, McEachran Collection, 'Extracts from the Customs House Reports of Campbeltown', edited by B.R. Leftwich, entry dated 18 February 1778.
38. Ibid, entry dated 9 March 1789.
39. Strawhorn, *History of Ayr*, p.95.
40. Fergusson, 'A Wine-Merchant's Letter-Book', p.219.
41. *OSA*, Vol VI, Parish of Girvan, p.238.
42. SRO, Customs Records of Irvine, CE/71/1/1,2&3.
43. J. Lamb, *The Annals of an Ayrshire Parish*, (Glasgow 1896), pp.51-57.
44. P.C. Carragher, *Saltcoats: Old and New*, (Saltcoats 1909), p. 25.
45. SRO, Customs House Reports of Irvine, CE/71/1/2, entry dated 4 March 1757.
46. Lamb, *Annals of an Ayrshire Parish*, p.51.
47. Carragher, *Saltcoats: Old and New*, p.25.
48. SRO, Customs House Reports of Irvine, CE/71/1/2, entry dated 23 December 1765.
49. Carragher, *Saltcoats: Old and New*, p.24.
50. Strawhorn, *History of Irvine*, p.77.
51. *OSA*, Vol VI, Parish of Ayr, p.20.
52. *OSA*, Vol VI, Parish of West Kilbride, p.272.
53. *OSA*, Vol VI, Parish of Stevenston, p.601.
54. Ibid, p.600.
55. *OSA*, Vol VI, Parish of Newton-on-Ayr, p.496.
56. *OSA*, Vol VI, Parish of Dundonald, p.180.
57. *OSA*, Vol VI, Parish of Largs, p.434.

### Part Four

1. See: Strawhorn, *History of Irvine*, p.76. and *History of Ayr*, p.96.
2. *OSA*, Vol. VI, Parish of Stevenston, p.593.
3. The Ayr Port Books for the period 1774-80 are held by the Carnegie Library, Ayr, and I am indebted to Mrs S. Andrew for calling them to my attention.



## The Shipping Trade Of Ayrshire 1689—1791

4. OSA, Vol. VI, Parish of Stevenston, p.593.
5. Pamphlet, *A Concise statement of the coal process betwixt The Curators of Mr. Warner of Ardeer and Rob. R. Cunninghame of Auchenhavie*, (Dalry 1801).
6. Ibid.
7. G. Jackson, 'Scottish Shipping, 1775-1805', *Shipping, Trade and Commerce: Essays in memory of Ralph Davis*, edited by P.L. Cottrell and D.H. Aldcroft, (Leicester 1981), p.119.
8. Cochran, 'Scottish Irish Trade', Vol II, p.331.
9. NAM, Accounts of Robert and James Kelso, unlisted. Robert was the master of the *Betty* of Saltcoats paying dues in the 1740 harbour accounts and measured as of 48 tons burthen by the Customs officers on her return from the Western Isles in January 1776. For James Kelso's commands see: *Peggy* and *Alexander*.
10. SRO, Customs Records of Irvine, CE/71/1/1, entry dated 19 January 1760.
11. This simple calculation is based on the 'on board' of 10/- and selling price of 16/- quoted in OSA, Vol VI, Parish of Irvine, p.
12. B. Crispin, 'Clyde Shipping and the American War', *Scottish Historical Review*, Vol 41, (1962).
13. *Glasgow Mercury*, entry dated 27 July 1780.
14. E.J. Graham, 'Privateering - the Scottish Experience', M.A. Dissertation, University of Exeter, (1979).
15. *Glasgow Mercury*, entry 17 August 1780.
16. Ibid, entry 3 January 1781.
17. Paul Jones had served with the Whitehaven coal masters on the Dublin run and was almost certainly well acquainted with the Ayrshire vessels in this trade. See: S.E. Morison, *John Paul Jones*, (Boston 1959).
18. PRO, [H]igh [C]ourt of [A]dmiralty, 26, commissions dated 22 August 1778, 4 September 1778 & 24 November 1778 respectively.
19. PRO, HCA, 26, commissions dated 13 January 1781.
20. Fergusson, 'The Letter books of a Wine Merchant', p.219.
21. *Glasgow Mercury*, entry dated 26 January 1781.
22. PRO, HCA, 26, commission dated 19 July 1781.
23. OSA, Vol IV, Parish of Stevenston, p.598.
24. For her dimensions see: appendix 1.
25. OSA, Vol IV, Parish of Stevenston, p.600.
26. Ibid, p.598.
27. Ibid, p.599.
28. I am indebted to the late M.M. Scholfield for this information taken from his research on the Campbelltown and Liverpool Plantation Registers, University of Liverpool, (1979).
29. OSA, Vol IV, Parish of Irvine, p.
30. OSA, Vol IV, Parish of Newton-on-Ayr, pp.495-6.
31. OSA, Vol IV, Parish of Stevenston, p.599.
32. D.R. MacGregor, *Merchant Sailing Ships*, (Watford 1980), p.125.
33. NAM, Accounts of Robert and James Kelso, unlisted
34. CDC, Auchenhavie MSS, Box 1, Bundle 50, Item 3, printed extract of contract dated 26 August 1795.
35. She would seem to have had a substantial history of long-haul passages; Irvine Customs records list a vessel of her name and port being issued a plantation certificate in 1759. In 1760 the same vessel is also granted a Mediterranean pass.
36. Whatley, 'Coal Mining Enterprise in Ayrshire', pp.93-4.

