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# ALONG AND ACROSS THE RIVER CARRON

## A HISTORY OF COMMUNICATIONS

### ON THE LOWER REACHES OF THE RIVER CARRON

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**Geoff B. Bailey**

A footnote in the second edition of Nimmo's "History of Stirlingshire" (1817, 576) gives notice of a map then being carefully surveyed and drawn by a Mr Grassom. The editor of the 'History' commended the map to the public and refers the reader to it "*for the bounding lines both of the county and the parishes. The Carron had formed a crooked march between the parish of Falkirk on one side, and those of Larbert and Bothkennar on the other. It had been straightened, while the old marches have remained. These have been carefully marked by Mr Grassom.*"

The map is indeed an excellent example of cartography and clearly shows the former course of the parish boundary. It is evident that he was able to do this not only because some of the ancient river banks of the Carron could still be traced through the fertile arable fields (Graham 1812, 277), but because march stones still marked the parish limits in those places where there was otherwise no surface evidence for the former course of the river. As late as 1967 seven of these stones were still visible lying isolated in the middle of a field east of Cobblebrae Farm, Bainsford. Where the river remains in its original location the boundary is represented by its mid-line.



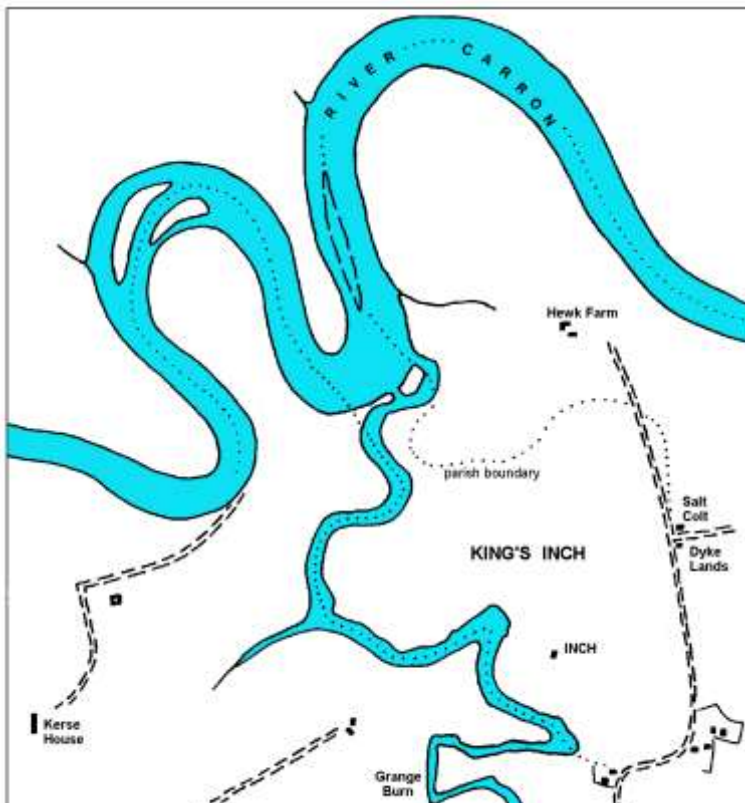
**Illus: 1916 Ordnance Survey map showing the boundary stones (labelled BS) at Cobblebrae and Carronside along the dotted lines representing the old river course (National Library of Scotland).**

The obvious question to arise from the foregoing is that of the date of the parish boundary, the "original" course of the River Carron, or Carron Water as it was often called. Before the drainage schemes in the upper reaches of the river, from the eighteenth century onwards, the river would have been a formidable natural obstacle to north-south communications and would seem to be an obvious candidate for a political boundary. It is often suggested as the northern limit of Calatria (Reid 1991), an area which may have had some meaning by the eighth century for in 710 A.D. the Anglo-Saxon Chronicle says "*In the same year the alderman Beorhfrith fought against the Picts between Haefe and Caere.*" That is, between the rivers Avon and Carron.

It is generally thought that the parish system of administration was established in central Scotland towards the end of the eleventh century, or very early in the twelfth. By the second quarter of the twelfth century this relatively new order was being disrupted by the arrival of the abbeys. In 1128 the existing church at Airth was given to Holyrood Abbey by David I, and in 1166 Richard, bishop of St Andrews bestowed the church at Falkirk to the same abbey. Likewise, Herbert Camerarius granted Kinneil Church to Holyrood some time between 1130 and 1163. A late eleventh century date for the drawing up of the parish boundary, perhaps formalising an earlier Celtic arrangement, would be appropriate.

By 1450 the courses of the river and the parish boundary near Grangemouth no longer coincided. Presumably therefore the boundary had remained static, the river had not, and the boundary was much earlier than 1450. It was in that year that the Abbey of Holyrood received a charter in the following terms:

*"Charter by King James ii granting to abbot and convent of the monastery of the Holy Rood of Edynburgh those lands commonly called the Kingis Inche, in the Lordship of Bothkenare, in the sheriffdom of Strevelyne, between the lands of the said abbot and convent on the east, and the lands of Westkers and the water of Carron on the west, and between the lands of the said abbot and convent on the south and north, in exchange for the lands of the said abbot and convent in the town of Leith, in the barony of Lestalrik. He also incorporates the said lands of the Inche in the regality of the barony of Kers which pertain to the said abbot and convent. At Edynburgh, 24th April 1450."*



Illus 2: King's Inch and the Parish Boundary.

Kingis Inche was later known as the Inches, a name which implies an island situation. The land lay in one of the many river loops and when high tide coincided with Spring tide it would seem that the river occasionally flooded across the narrow neck. Whether the

river eventually broke through this narrow neck by natural means to create a classic oxbow lake situation, or whether it was an artificial cut is unknown.

The importance of the charter is that it only gives the water of Carron on the west side of Kingis Inche, whereas the parish boundary demarcates it on the south and east as well. By 1450 then, the river was already near to its eighteenth century course and the Inch was physically cut off from the rest of the parish. However, it was only with the creation of the new parish of Polmont in 1726 that the Inch was finally disjoined from the parish of Bothkennar. A report of 1719 runs: "*And whereas the land of Inch pertaining to the Lady Bangour and presently in the parish of Bothkennar, and separated from the parish kirk by the water of Carron, and lying on the east side of the Grange Burn, at a convenient distance from the kirk of the new erection, it is judged proper they be disjoined from the said paroch of Bothkennar and annexed to the new erection*" (Porteous, R. 1967).

That other reaches of the river were also causing problems due to the changes in its course is indicated by the perambulation in 1477 to 'clear' or reaffirm the marches between the lands of [Dalderse](#) and Bothkennar (Stirling Protocol Book) which had originally been on opposite sides of the river.

The sinuous course of the late eleventh century parish boundary shows that the River Carron to the east of Denny was typical of many low lying rivers nearing an estuary; wide, sluggish and prone to flood the land adjacent to its many meanders. It was also of a larger magnitude than now and had a much greater impact upon the lives of those living in its proximity. There are several instances of its destructive powers on record. For instance, in July 1636:

*"the parishoneris of the parish of Denny makand mention that quhair upon the ... day of July instant there was suche ane fearfull tempest of thunder and great rains within their bounds and some few myllis about as the lyke has not been seene in anie mans memorie. Be the violence quhair of not onlie houses with men wyffes and bairnes were pitifullie carried away and drowned but great craiges and rocks were rent and hudge parts of the same of fourtie foot of lengthe and aboue carried with the violence of the spait above foure or five paire of buts lenthe frome the craig within the water of Carroun to the dry land as lykeways the supplicants bridge whilk was build upon the said water of Carron by the said spait is demolished and cast downe"* (Privy Council Records 28th July 1636).

In 1672 Parliament made an abatement to William Bruce of Newtoun of the feu duty of the lands of Newtoun in the parish of Bothkennar, as part of them "*was washen and taken away thereof by the impetuous running of the rivers of Forth and Carron the number of six oxengaite halfe oxgait ane aiker and three quarters of [ane] aiker*" (A.P.S.c77VIII.127b.128a).

Some time before 1723 the owner of [Kerse House](#) went to considerable trouble to divert the river away from his house which it threatened to undermine (Johnston of Kirkland 1723). The eastern end of the original meander was drained by an artificial cut or 'canal' which was led into the Grange Burn (Roy's map; RHP 1497). In the eighteenth century the weather seems to have become more extreme and we learn that in June 1733 a terrific shower of hail fell in various parts of the country with the greatest damage occurring at Denny. The hailstones are said to have measured up to four inches, some taking three days to melt. The Carron rose to such a height that two bridges were

destroyed and a great number of horses, cows, and sheep were carried away by the force of the current. Mills were damaged and a miller and his daughter drowned (Love 1908, 2). Perhaps the most famous structure to be damaged that century was the Stenhouse Mill Dam. The Roman temple known locally as Arthur's O'on was demolished to provide the stone for a new weir in 1743, and shortly afterwards this was washed away by the flooding river and, according to the locals, the wrath of the Gods.

Local inhabitants referred to the other side of the River Carron as "*over the water*" as today we might refer to the Forth (Johnston's Diary 1723). Floods were normal in the winter months and were accepted as an inconvenience. Johnston of Kirkland, who wrote a description of the Falkirk area in 1723, had particular reason to fear the river as he narrowly escaped drowning on 31st January 1722. He was taking a ferry on his way to the ordination of his friend, Reverend Henry Lindsay, to Bothkennar Parish, when the boat capsized and those with him died. In 1759 the loss of life in crossing and re-crossing the Carron Ford was described as "*alarming*".

The winding perilous course of the River Carron may have persuaded the Romans that it was a suitable barrier to form the eastern flank of the Antonine Wall. It would appear that they consequently started the Wall at Tamfourhill (Bailey 1995) with a fort at Camelon to guard the lowest crossing of the river by a timber bridge (RCAHMS 1963) which they constructed on the main route northwards. On the north side of the river and eastward lay the Roman temple, [Arthur's O'on](#), which may have commemorated the Roman victory in Scotland and the construction of the Antonine Wall. However, the Carron can be forded at numerous places to the east of [Camelon](#) at low tide. This may have been why the Romans subsequently extended their artificial barrier eastward to join the Forth's banks at the fort of Carriden.

The Carron is tidal to Mungall (latterly the site of the Stenhouse Dam taken over by the [Carron Company](#)) and so fords downstream could only be crossed at low tide. At high tide they were replaced by ferries. When the sea was out it was usual to cross by horse (Johnston 1723), or to be carried on a man's back (Smeaton 1768 21). The fords were also seasonal, being difficult or impossible to use in the winter months. The right to operate a ferry, and charge for its upkeep, seems to have been important. The 1643 charter for West Kerse gives "*the right to use a ferry boat and cobill - one or more, both north of the Carron and in any useful places within the said lands*". Further upstream the [Livingstones](#) were likewise given "*the privilege of appointing a ferry-man for the transportation of passengers from one side to the other of the said water of Carron, in whatsoever place or places within the said lands which may be most convenient for this purpose, to uplift the whole emoluments and advantages of the same*" in 1663.

Fords were more common than ferries (compare [appendix I](#) with [II](#)) because of the latter's greater maintenance costs. Bridges represented an even greater investment and it is not surprising that they were relatively few in number. The first bridge to have been constructed over the River Carron is likely to have been by the Roman army somewhere NNW of the fort at Camelon. The exact position of this postulated structure has never been located. Two sites are currently favoured:

- (i) At the site of the Carron Company's weir (RCAHMS 1963, 113);
- (ii) On the north-west corner of this loop of the river opposite Guildfield Mill (on the Dunipace Road), from where the road would have proceeded northward along the



parish boundary between Larbert and Dunipace. The bridgehead was first established in the Flavian period, circa 80 A.D., and re-established during the Antonine occupation of Scotland c140 A.D. Conveniently, it lies beyond the present day tidal limit, and in so far as we can tell beyond that of the Roman period (Tatton-Brown 1980).

The crossing place at Larbert seems to have continued in importance down the years, with perhaps a small change in the bridge's location. A bridge is indicated in the Barony of Dunipace early in the fourteenth century during the Wars of Independence (Bain, Callendar Documents vol 1 & 2). As the only bridge it was of great strategic importance as the following two extracts from Pitscottie's chronicles illustrate. The first refers to the year 1452 when James II was having a little trouble with the Douglas family: "*Threttie thousand men, heireftir awfullire with displeyit baner came fordvard aganis the Erle of Douglas quha wes lyand in camp of battell one tae south sydd of the watter of caron a litill be eist the brig ...for to reskew the castell of Abircorne*" The second was the revolt which brought James II's son to the throne in 1488: "*The king raise and his consall and lordis that was witht him and passit fordwart to the Torwode in arrayit battell + planted doun quthill ma come to hm. Bot the kingis enemeis on the wther syde come pairt lve fordwart to the watter of charrane abone the brige*".

The main problem is knowing where the bridge is that is being referred to, for both incidences could equally suit a site at Denny. Indeed, Pont's map which was first surveyed in the mid-sixteenth century only shows the bridge at Denny. This map also shows the "*Old Brigg*" at Carronbridge, much higher up the river on the road from Kilsyth to Stirling. By this date Larbert Bridge would have been the responsibility of the Livingstone's of Callendar.

All of these bridges would have been narrow hump-backed structures for pedestrians, pack-mules, horses, cattle and the occasional cart. At times of flood they were the only safe way of crossing the river. In 1695 a new bridge was added at Carronbridge "*for preservatione of the leidges travelling that way oftentimes in tyme of raine and speat*". As a result of the establishment of the Carron Iron Works, and the consequent increase in the use of the Coblebrae Ford/ferry, a bridge was constructed there in 1775. Then, in the early nineteenth century, the impetus of commerce led to the formation of turnpike trusts to improve road communications. Kerse Bridge, also known as the "Pay Brigg" because of the toll, was erected in 1810 on the line of the important turnpike from Polmont to Stirling via Airth; and Dunipace Bridge followed in 1825 on the Peathill to Redrow Turnpike.

It would be true to say that by the time that the last of these bridges was being built the river was but a shadow of its former self. Water control along the river has had an extremely long history and is perhaps best illustrated by the decision to site the Carron Iron Works here. At the time this was Scotland's largest integrated industrial concern and two of the main reasons for locating it at Stenhouse were the need for water power and for water transport. As the mills along the river will be dealt with elsewhere (Reid 2004 & 2005), it will be sufficient here to emphasise the importance placed upon water power by those involved. In 1759, Lord Errol, as lessee of the York Building Company's Callendar Estate, had granted a feu charter of the two Lower Mills of Larbert to the Carron Company. They subsequently diverted the water from these in their huge lade to feed the Carron Dams, and abandoned the two mills. However, when [William Forbes](#) bought the rest of the Estate in 1783 he claimed that the attraction of the purchase lay in

"the quantity of coal which the lands contained and the falles of water which rendered the situation very eligible for erecting works for the purpose of smelting and milling metals" (Shaw 1984, 421). Obviously the Carron Company's use of water from the river severely limited his ability to use water power and so he raised the matter in the Court of Session. At about the same time the Carron Company had taken the proprietors of the [Forth and Clyde Canal](#) to court as the new waterway was depriving the river of its usual water supply.

## NAVIGATION

Weirs and dams provided an obstacle to navigation, but as they were practically all located in the upper reaches of the river where the fall (and hence the current) was greatest there appears to have been no objection to them on these grounds. Below Larbert the mills of Larbert, Mungal, Carronshore (Black Mill) and Dalderse all lay on tributary streams as they entered the Carron. Only that at Stenhouse had a weir across the river. The salmon fishing weirs near Newton did not impede the vessels of the Carron Company.

It is a matter of conjecture as to whether the River Carron had been navigable beyond Stenhouse Mill Dam. St Joseph (1983, 129) and Tatton-Brown (1980, 342) have argued that the Carron was navigable up to the Roman fort at Camelon. The fort lies 1.1km north of the Antonine Wall and yet some distance from the supposed river crossing to Stirling. A harbour in the vicinity of the fort might explain such a discrepancy, and also the large size of the fort and its annexes. However, these points might also be the result of the location of the fort's Flavian predecessor at a nodal point of communications. Nonetheless, it still remains odd that the fort should face east and not north like the vast majority of the Wall forts. General Roy, who mapped the antiquities here in 1755, certainly believed that the river had formerly approached the fort and his plan shows an early meander of the Carron to the east of the fort on the river's floodplain. Nimmo echoes this observation



Illus 4: Roy's Plan of the Camelon area.

"After the river hath left the village and bridge of Larbert, it soon comes up to another small valley, through the midst of which it hath now won to itself a straight channel; whereas, in former ages, it had taken a considerable compass southward, as appears by the track of the old bed, which is still visible. The high and circling banks upon the south side, give to this valley the appearance of a spacious bay; and as tradition goes, there was once an harbour there" (Nimmo 1817, 74). Final proof of a lost meander here is given in a plan of the lands of Broomage drawn up in 1771 (RHP 10607). It shows how a small part of the lands had been left on the south side of the River Carron as a result of the movement of the river from its original course which was still fossilized in the shapes of the field boundaries. The area was subjected to landfill in the 1960s but always had a reputation for being marshy despite a large gully along the line of Roy's old river course (indeed RHP 1497 shows the eastern end of this course still open).

Local tradition was evidently available to Roy whilst he carried out his survey and reports of the discovery of anchors and other naval equipment at Dorrator can be found as early as the late seventeenth century (Anonymous Traveller 1697, Tatton-Brown 1976, 432). If nothing else, these suggest that the river had been navigable beyond Stenhouse Dam. There is also a report of stones having been found during ploughing a bank, which is supposed to have been the quay of a harbour from the fact that several of the stones had rings attached (McMichael 1890, 72).



**Illus 5: Location Plan of Camelon Fort.**

The tidal nature of the River Carron had some advantages. Prime amongst these was the ability of the vessels to travel upstream with the aid of an incoming tide, and to return on an outgoing tide. Tides were essential to carry the craft over the numerous fords mentioned above (and see [appendix I](#)). Today the river is tidal up to the weir at the Carron Iron Works site, that is the site of Stenhouse Mill Dam, but the tidal range in the Roman period is unknown. The weir effectively curtails the natural tidal flow with its consequent ponding back of the water carried by the river itself. With slightly higher water levels in the Roman period, now reduced due to isostatic changes, it would have been quite possible for the river to be tidal to the bridge at Larbert (Sissons 1976). Nor need the fords have been so much of a problem; indeed, some may not even have been there.

Even without the aid of a tide ships would still have been able to make their way upstream, either by tracking (being pulled from the bank) or tacking, for the river is relatively sluggish below Larbert. Nor did the ships actually require much draft. In the mid eighteenth century the engineer John Smeaton prepared a report for the construction of the Forth and Clyde Canal: *"With a view to determine the kind of vessel proper to navigate this canal, I examined the gaboats (or galberts) which ply upon the Clyde, and are capable of navigating that firth in all common seasons, and which I apprehend by the same rule would navigate the firth of Forth between the canal and Leith, if found requisite so to do. I found that a middling gaboa, of fifty-six feet long, stem and stern, seventeen feet and a half wide, and drawing four feet of water, will carry at least forty tuns; and this I look upon to be the largest size that will be convenient for an artificial navigation"* (Smeaton 1767, 12).

Our knowledge of Roman boats has been greatly enlarged in recent years with the finding of several vessels in the silts of the old course of the Rhine near the fort of Zwammerdam in the Netherlands (Weerd 1978). The shallow draft of these "log-derived" boats made

them capable of travelling far inland on shallow waterways, whilst their squared-off bows and sterns permitted goods to be landed on naturally sloping river banks without the need for elaborate harbour works. The evidence of Roman carvings and other representations of river boats, together with medieval and later practices, suggests that these vessels could be sailed, rowed, punted, towed or simply allowed to follow the current (Ellmers 1978). Celtic boat construction impressed Julius Caesar: "*Their keels were considerably more flat than those of our own ships, that they might more easily weather shoals and ebb-tide*" (Gallic War III, 13). A boat of this type was found recently at Guernsey. Transshipment of goods could have occurred from larger vessels at Cramond, Inveresk or at the mouth of the Carron. Certainly a harbour at Camelon would have greatly facilitated the problem of supplying the eastern half of the Antonine Wall. The relative costs of sea: river: land transport at this time has been calculated at 1:4.9:28 (Duncan-Jones 1974, 366), very similar to that for eighteenth century England, and a prime reason for seeking a harbour here.

Robert Munro, the prehistorian, considered that the River Carron had long been a waterway frequented by boats. He cited the discovery in May 1726 of a boat in "*the washings of the river Carron*" near Falkirk (Munro 1899, 66). The boat was 13 or 14 feet down when found covered by strata of loam, clay, shells, moss, sand and gravel. It was 36 feet in length and 4½ feet in breadth, all supposedly of one piece of oak, finely polished, and having a pointed bow and a square stern. Like the "*anchors and such sea tackle*" reported in 1697 (Anonymous Traveller; cf E. Gibson's edition of W. Camden 1695) as having been found in the moss, it is now impossible to determine how old these finds were. One of the earliest references to navigation on the Carron occurs in 1489 when boats were conveyed overland from Dalderse to help in the siege of Dumbarton (High Treasurer's Account of Scotland, vol 1).

Dalderse was the main landing point for ships on the Carron, but vessels of the time could unload at any point along its banks by beaching themselves on the mud as the tide went out and carrying the goods ashore at low tide. Small inlets along the shores of the Forth were likewise utilised to uplift or deposit goods and, despite the lack of jetties or docking facilities, were also subject to shore dues. Even as late as 1768 Smeaton was emphasising the need to retain the natural harbour provided by a loop of the river at Greenbrae Reach with its soft mud which made it "*easy for vessels of all kinds to ly upon*" (Smeaton 1768, 17). These methods are reflected in the earlier charters of the sixteenth and seventeenth centuries to the Livingstones of Callendar:

*"the whole liberties and privileges of a harbour and station for ships upon the land of Dalderse, or upon any other lands whatsoever, belonging in property or tenantry to the foresaid Alexander Lord Levingston of Almond, lying contiguous to the water of Carron, for the transporting of coals to the sea, from the said Lords' coal-works of Falkirk, for the use and advantage of our subjects and others thither repairing; with power to make and erect sufficient bulwarks, The Damnes and Clauses for retaining the water in the passages and ditches of and from the foresaid river, within bounds, and for levying and exacting the whole anchorage duty of the shores, the rents, small customs, privileges and casualties belonging to a free port, from all ships, boats and cruives calling or lying there, or entering any of the passages or pows leading through the foresaid lands in and to the said water of Carron; and to raise and build a station for ships or harbour, within any part of the said bounds"* (charter dated 10.9.1663)



By the early eighteenth century there were three main harbours on the Carron. The oldest of these seems to have been that at the Salt Pow, Dalderse. This was the staple port for the Burgh of Falkirk (Johnston 1723) permitted in the early Livingstone charters. Goods were taken from here to Falkirk by way of Etna Road, or to Cumbernauld and Glasgow along David's Loan, Mungahel Road and so through Camelon (thus avoiding dues in the Burgh of Falkirk). In the mid-eighteenth century, already in decline, it was taken over by the Carron Company and from that time it rapidly lost its remaining trade to Carronshore. Vessels still traded to the Salt Pow during the twentieth century. However, by this time the river had been considerably altered and the vessels did not actually enter the pow. Up to the 1930s ice was imported from Scandinavia and stored in large warehouses at Carronside. The remains of the wooden wharfs on the river bank can still be seen here.

A second harbour was necessary to facilitate larger vessels than could reach the Salt Pow and where cargoes could be safely transhipped. This harbour lay near to the mouth of the river at Greenbrae Reach. A jetty at the Point of Green Brae could take vessels of up to 500 tons in 1765, but only vessels of 60 tons and under could proceed beyond the next meander (RHP 1497). The natural harbour here received further impetus with the development of the coalfields on its northern banks. The major disadvantage of this haven was that ships at anchor obstructed those wishing to navigate along the river. It was also rather awkward for the ships to navigate the loop from the Forth and so in 1783 the loop, which included the harbour, was removed.

The third harbour on the river, at [Carronshore](#), prospered throughout the eighteenth century. Sometimes called Quarrel Shore, it was described in 1723 as "*a good harbour for small boats and barks yea sometimes at spring tides there comes here ships of 60 tun burden. Quarrell has a coal field here for his coalls from which they are carried to the greenbrae to big ships, and by small boats and barks to Leith and the North countrey*" (Johnston 1723). The facility for exporting coal was further developed by the use of a wagon way from the neighbouring collieries to the dock (Graham 1812).

The small lighters or smacks belonged to the port, and many of them may have been constructed there. The earliest record of a ship being built at Carronshore occurs in 1746 when the "Kennedy", a sloop of 60 tons (Lloyd's Register 1776), was commissioned for James Reddie of Dysart for trade between Leith and Norway. The fact that he was prepared to have his vessel built so far from his home port suggests that the boatyards at Carronshore had already earned a good reputation by that date. Nor was all the trade of coal. The customs records of 1742-1746 indicate what other types of cargo were involved. Coming from Glasgow were leaf tobacco, casks of rice, woollen products and dog skins. Goods travelling in the opposite direction from sources around the Baltic included barrels of linseed, undressed flax and pearl ash. From the east coast came beer, salt, whale products, glass and sail cloth. The port thus provided a transit point for material which might otherwise have to be carried around the troublesome northern coast of Scotland. In this manner it was linked into the trade routes of the entire eastern coast of Britain, including the growing port of London, as well as those of northern Europe. It was these routes that the Carron Company, from its very conception, was intended to tap.



**Illus 6: Main Street, Carronshore, with the Graving Dock in the foreground and Granary to the right.**

With the foundation of the Carron Iron Works in 1759, and its rapid growth thereafter, the river traffic increased dramatically. Smeaton, in particular, noticed the effects having in 1763 surveyed the lower reaches of the Carron in search of a point of entry for what was to become the Forth and Clyde Canal, and having subsequently reviewed the situation four years later. The additional shipping had led to some congestion in the river and he was therefore reluctant to add to this by entering the river from the Forth and Clyde Canal at Carronshore (Smeaton

1767). In the following year, from October 1767 to October 1768, some 900 vessels are said to have plied in and out of the river, and that did not include the more numerous small craft laden with ironstone and limestone (Campbell 1961, 119). For their part the Carron Company were equally concerned that vessels waiting to enter a canal at the mouth of the Carron would hinder the progress of its ships up the river. A point put across in a series of letters:

*"a very few vessels lying at anchor with goods for the canal, will at both places greatly obstruct the passage of the river, nay totally stop it for some time of the tide, and if masters of vessels should be ill-designing or ill-tempered men, they may, under the sanction of your act, with little trouble, and with tolerable pretences, entirely block up the communication between our works and the sea."* (Scots Magazine 1 November 1768).

*"...the river Carron is not, in its present situation, capable of accommodating trade, as represented by Mr Smeaton; and particularly, that the place he calls a harbour, will not admit of transshipping of cargoes passing to and from the canal, as described in his Review, p17, and 18, without great obstruction, if not wholly stopping the navigation of large vessels between the Forth and our establishments .... we are legally intitled to maintain the freedom of passage to our works from every obstruction"* (Scots Magazine 29 November 1768).

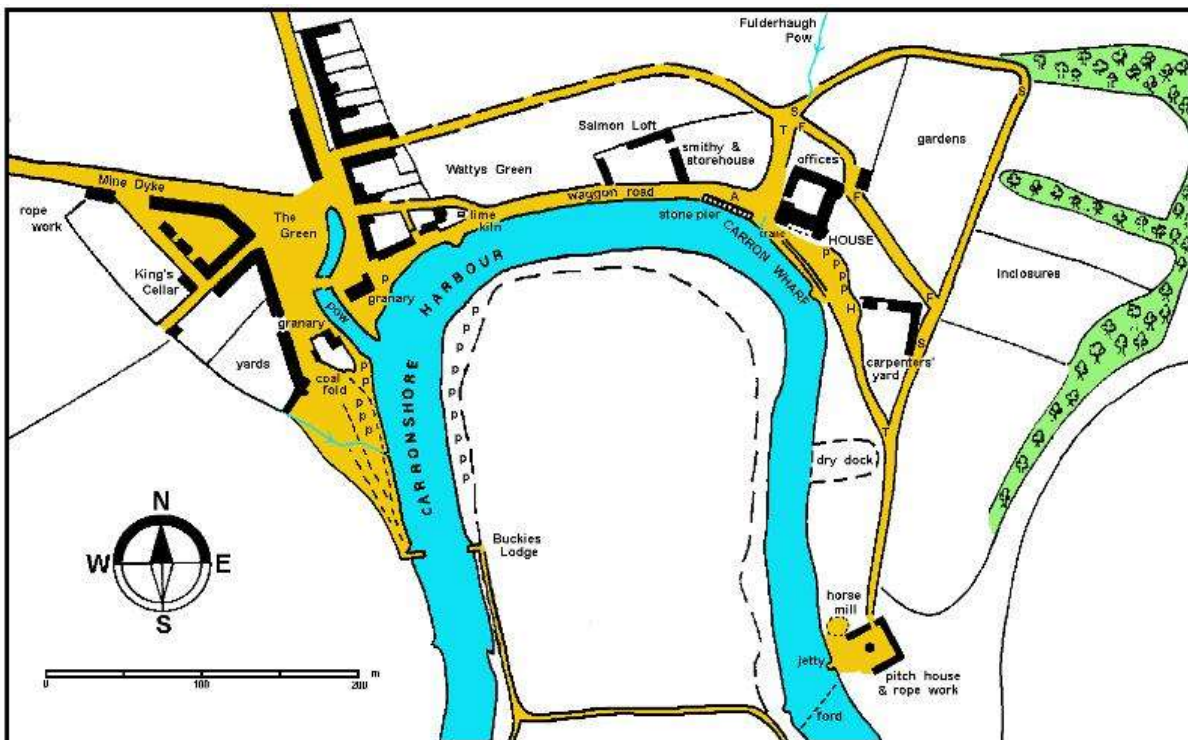
This increase in shipping seriously impeded the turn-round of vessels at the crowded harbour at Carronshore (Campbell 1961, 115). Yet, the Carron Company found it difficult to obtain sufficient vessels to carry their goods such was their rate of increase in demand. In the autumn of 1762 they offered as much freight as any ship could take at 12s a ton, with the inducement of 10 tons of goods from Glasgow if the master so wished. As carriage from Glasgow to Carronshore was about 3d a cwt cheaper than to Bo'ness this offer would have enabled shipmasters to build up a trade between London and Glasgow. Furthermore, any ship carrying Carron goods to London was to be given preference in bringing iron for use in the works from London as ballast at the usual freight of 5s a ton.

Carronshore's overland trade with Glasgow was now on a greater scale than ever before, as is amply illustrated in the following extract of 1776: *"There is a great deal of money got here by the carriage of goods, landed at Carron wharf, to Glasgow. Such is the increase*

*of trade in this country, that about twenty years ago not three carts could be found in the town, and at present there are above a hundred that are supported by their intercourse with Glasgow" (Penant, p240); "Carron wharf lies on the Forth, and is not only usefull to the works, but of great service even to Glasgow, as cosiderable quantities of goods destined for that city are landed there." (Ibid, 242).*

The expanding trade of the Carron Company, especially to the London market, required more than just the use of occasional vessels and ships were contracted for several journeys. At the same time, in 1763, [Charles Gascoigne](#) and his father-in-law, Samuel Garbett, started a shipping company at Carronshore under the name of Samuel Garbett and Co. In 1767 Samuel Garbett's son, Francis, entered the partnership and it became Francis Garbett and Co, also known as the Carron Wharf Co. Locally this new shipping company was not popular and other agents accused them of trying to monopolize the sea trade carried out from the River Carron at the expense of the existing businesses. This monopoly was effectively ensured when the Carron Company took over the lease of the harbour at Carronshore, sub-leasing it to Garbett and Co, and diverting the coal previously exported abroad from it to its own works.

It also attracted investment which might otherwise have gone to the ironworks. Part of this capital went into constructing new wharfage of stone at the east end of Carronshore with a wagon way from the Carron Iron Works. Cranes and polls were provided. There was a pitch house and a large graving dock at Fulderhaugh to build and maintain the company's boats. The smithy and storehouse, called 'the Salmon Loft', made and repaired anchors as well as iron braces for the ships and the usual country items. Ships stores were kept in its courtyard and in another courtyard to the west.



**Illus 7: Plan of Carronshore and the new Carron Wharf area, as it was c1780. Showing changes made by Gascoigne to the roads (based on RHP 44339). a-h road often obstructed by cannon, etc : p posts : F-F first road to brewery: S-S second road: T-T third**





Illus 8: Photograph of the "Granary" at Carron House.

The new Carron Wharf of 1765 is particularly interesting as it still survives within the remnants of [Carron House](#). At the south-west corner of the existing quadrangle is a three storey warehouse known as the "Granary". This was the generic term for such warehouses in the late eighteenth and early nineteenth centuries.

To the east of this is an elaborate loggia forming part of an ornate facade of a country house facing the river. This complex was designed for the flamboyant Gascoigne whose ambition was to take over the Carron Company and oust Cadell from his more modest residence at [Carron Park](#). The house was built first, and the gardens laid out, to be followed in their turn by the estate fields. Such massive expenditure at so early a stage in the shipping company's business was unwarranted and it is not surprising that the company was soon in trouble. The house is reported to have been destroyed by fire at an early date (RCAHMS 1963, 346).

The second major area of investment lay in improving the navigation of the river. Both areas are stressed in the following letter of 1768:

*"That when we settled in this country in the year 1760, there was but little commerce passing on the river Carron, which was at that time an inconvenient navigation.*

*That we have considerably improved the river at our own expence. That we have built large and convenient wharfs and warehouses for the accommodation of trade; and, in consequence of these improvements, there hath, for several years past, been a great resort of business. The last year there were upwards of 12,000 cargoes, amounting to 40,000 tuns, upon our own account, and about 153 cargoes, or 450 tuns, upon that of other people.*

*That we have expended considerably above 100,000 l. Sterling upon establishments on the banks of the river, and employ many more than a thousand people in this country"* (Scots Magazine 1 November 1768).

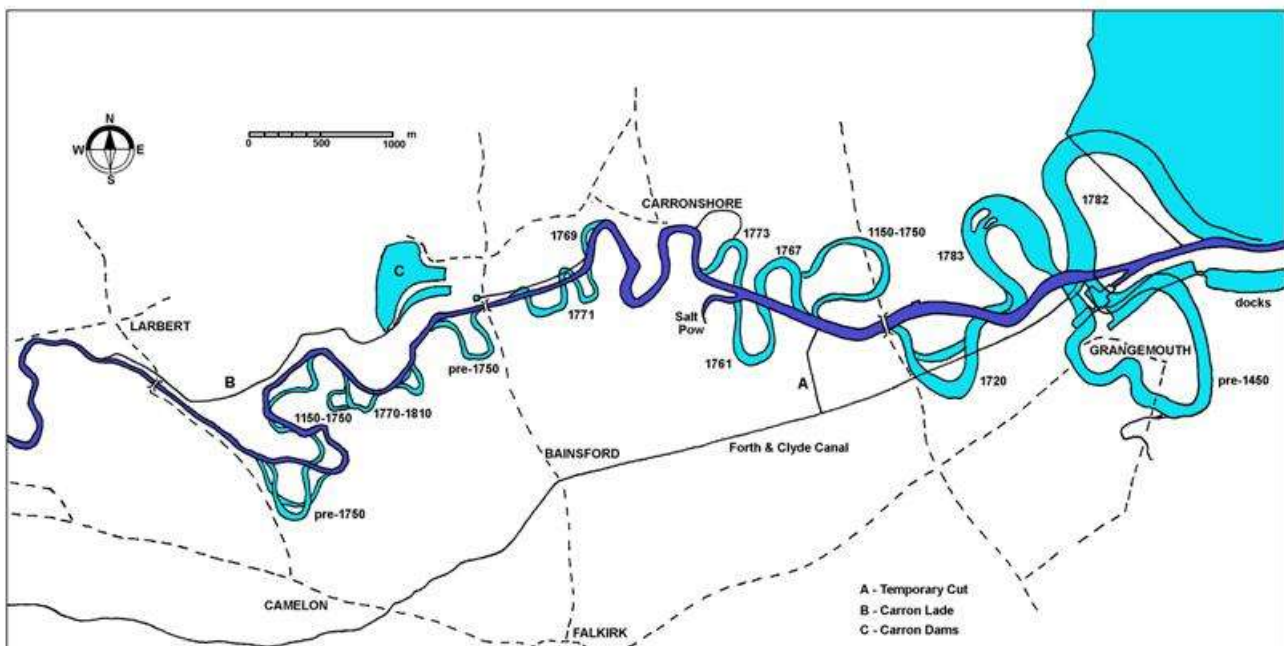
One of the first areas to receive attention appears to have been the mouth of the river where it joined the Forth. Treacherous mud flats lurked large on either side of the river and were difficult to negotiate even for the experienced captains. So beacons were placed at strategic intervals beyond the tidal limit. These must have taken the form of massive wooden poles surmounted by a wrought iron basket. During daylight the poles were visible and at night pitch torches would have been lit in the baskets, a boatman being paid to perform this duty.



Illus 9: Line Drawing of Carron House from the River made in 1779.



Between 1763 and 1767 two cuts had been made to straighten and deepen the river east of Carronshore. In 1799 during a legal plea concerning the right of tracking along the banks of the Carron, Gascoigne was credited with this task and described as one "*whose public spirit and activity will be well remembered*" (Campbell 1961, 116). As feuar of Abbotshaugh, Gascoigne was naturally one of the beneficiaries (RHP 44356). The effect on shipping can be gauged by the increase in the size of the ships able to reach Carronshore. In 1723 we are told that the largest vessels were of 60 tons burden which could reach the harbour at Spring tides (Johnston 1723), by 1796 vessels of 200 tons were making the journey (Belsches 1796, 10) though ordinary tides reduced this to 150 tons (Bonar 1845, 342). The winding course of the river at Grangemouth still made the operation of tracking "*tedious and uncertain*" (op cit).



**Illus 10: The River Carron showing the original (pale blue) and present (dark blue) courses.**

The improvements did create some problems which were exaggerated by others. Part of the problem seems to have been caused by material being washed out of the sides and bases of the new cuts and redeposited downstream (Smeaton 1767). To the Carron Company this was consistent with their policy of improvements which they wanted to carry still further by eradicating at least one of the two remaining loops at Grangemouth where the silt was accumulating. By straightening the river and confining it to a narrower channel the water ran faster and so cleared its own course of silt. They also promoted the Forth and Clyde Canal entry at Carronshore in the hope that the Canal Company would then be obliged to meet the maintenance costs of the river from that point.

Smeaton and the Canal Company opposed them. Firstly they fixed the canal entry at [Grangemouth](#). Secondly they insisted that the natural harbour at Greenbrae formed by one of the loops of the river at that point should be retained. They therefore blocked any proceedings that the Carron Company made to obtain the requisite Parliamentary consent for further straightening the river. So, at the close of 1767 the Carron Company suggested a compromise consisting of a direct cut from the canal to their works. The Canal Company accepted and agreed to make a cut which would fork, one branch going to Stenhouse Mill dam, the other to a point on the river just below Carronshore. Though



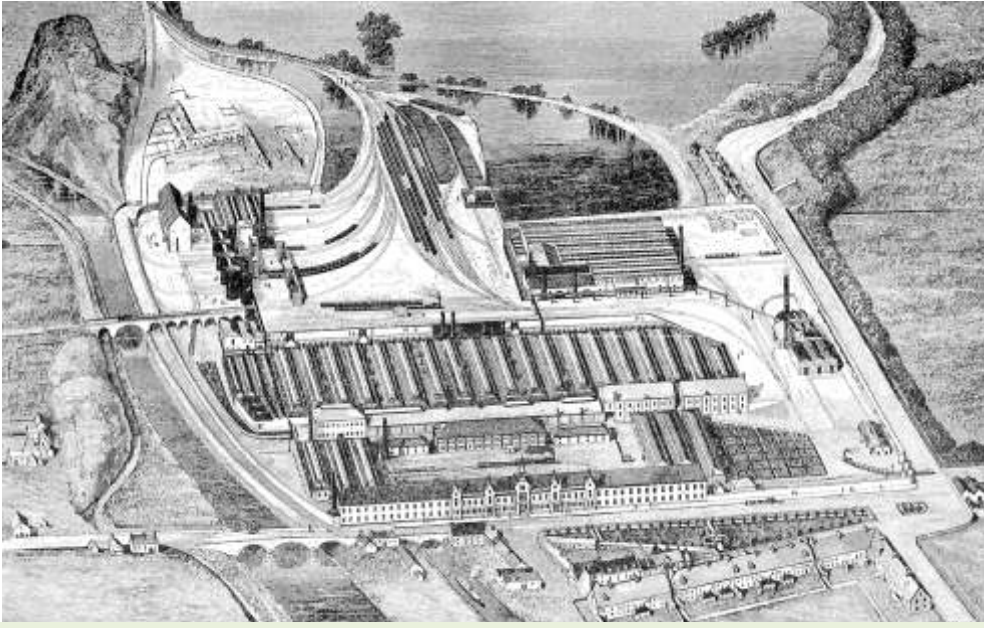
**Illus 11: 1771 Plan of the projected cuts from Bainsford to Carron Works and Carronshore.**

Carron Company was anxious to have the cut made expeditiously, the Canal Company were equally anxious not to make it at all. In spite of continual assurances no action was taken. In 1771 to facilitate matters the Carron Company suggested that it would make the cut itself at an estimated cost of £10,000, and charge this to the Canal Company taking repayment only in the form of lock dues as they became payable. When this proposal supported by Lords Rosebery and Elibank was heavily defeated the Carron Company turned to legal action, but to no avail.

Two small canals were constructed by the Carron Company. The first ran parallel with the river from a loading basin in their works to a point near Carronside. It took water from the foundry which had been expended in powering the massive furnace bellows, and followed in part the line of an earlier mill lade. It required a single lock at the river end and thus extended navigation beyond the lower tidal limit. The project seems to have been completed by 1771 when the two river loops at Carronside were eradicated (RHP 44356). It had been contemplated from the foundation of the works as is shown by the agreement reached between [Dr Roebuck](#) and Sir Michael Bruce on 13th December 1759:

*"for making a Canal and water-course and lead through and over any part of his lands of Stenhouse both to and from the said Forges and Furnaces with full power, liberty and privilege of Navigating Sloops Boats and Lighters up and down the River Carron as well as in the Canal or Water course before mentioned."* (Campbell 1961, 32). On 22nd November 1771 a sasine was made in favour of Francis Garbett and Charles Gascoigne for the *"milns of Stenhouse shilling well belonging thereto kilns milners houses & pertinents with the whole suchen multures knaveship & c with the ware or damhead with the miln head for bringing the said water to the milns and the Canal for carrying off the water from the same with power to widen the said canal betwixt the tails of the wheels of the said milns and river Carron to the Breadth of thirty six feet and to deepen the same if necessary ..."*.

The second canal was also strategically important as it joined the river with the Forth and Clyde Canal at Dalderse. It followed the line of the burn which bounded the estates of Dalderse and Dalgrain and was completed before 1775, for in that year Robert Mackell, the Canal Company's engineer, closed this "temporary cut" (Lindsay 1968, 25). It was re-opened in 1782 (Ibid p.33; see also RHP 44366 dated 1789). It too had a single lock adjacent to the river. However, the water supply would have been dependent upon the Canal Company. It saved the Carron lighters the long and arduous trip around the loop at Newton.



**Illus 12: Drawing of Carron Works in 1888 showing the Private Canal.**

By 1773 the Canal Company had turned full circle and had agreed to execute the cut through one of the loops of the river near Grangemouth. Yet again there were delays and the relationship between the two companies worsened with the Carron Company's shareholders refusing to pay on

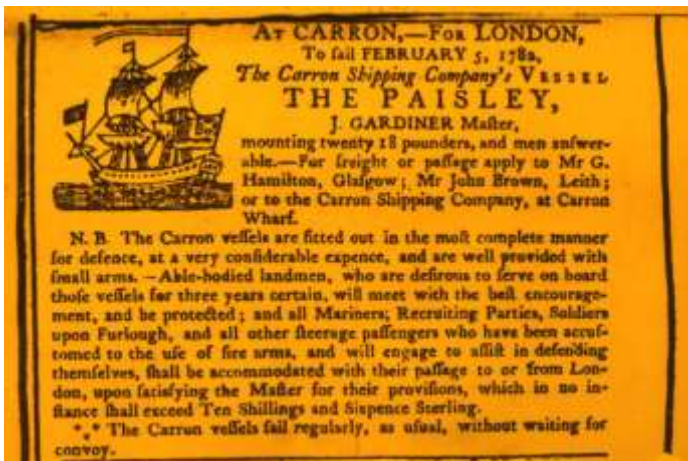
shares they had acquired in the Canal Company. It was not until 1783 that this lengthy cut was made and Lord Dundas "*with patriotic spirit, straightened the course of the Carron towards its emboucheure*" (Graham 1812, 277). In May of that year the Canal Company accepted an offer for digging this cut at 3.25d per cubic yard. A contemporary source noted a flurry of activity:

*"June 1783 the information from Sea-Lock, at the east end of the great canal, says, that the new cut from Holmerrie to that place is going on very fast, and will be navigable before Martinmas. The workmen, in cutting about the middle, found the bones and horns of two large deer, seven feet below the surface of the earth. The other improvements going on about Sea-Lock, is building basins, harbours, quays, wharfs, cranes etc. will render it one of the most elegant, useful and convenient undertakings this Kingdom ever produced"* (Porteous 1967).

Early in 1785 Smeaton was called in to advise on the dam being erected to divert the water into the new navigable cut, but in March the dam collapsed and the cut was nearly abandoned. Sir Thomas Dundas had given the ground over which the cut was to be made, and contributed half of the cost. However, it was later (1815) alleged that this was simply to add "*60 acres of fertile land*" to his estate (Lindsay 1968, 38). The land reclaimed had been known as the 'Slykes' and the first crop to be grown on it was of beans. According to one tradition not two dozen stalks grew and so Lord Dundas decided to hand it over to his tenants at a cheap rate (Falkirk Herald 1861). The Dundas Cut considerably helped the development of the port at Grangemouth and it was obviously for this reason that Lord Dundas, who owned the town, and was chairman of the Canal Company, finally undertook the task. It effectively made the 'temporary cut' at Dalderse by the Carron Company redundant. The improvement was not to everyone's liking and in 1790 the Bruces of Kinnaird noted the potential of their small shipping place off the Forth at Kings dale "*which is of great importance both to them and to the country in general for the importation of lime and other articles and is likely to become more so in time coming as the navigation of the river Carron has suffered much by some late operations*" (Sc 67/83/10).



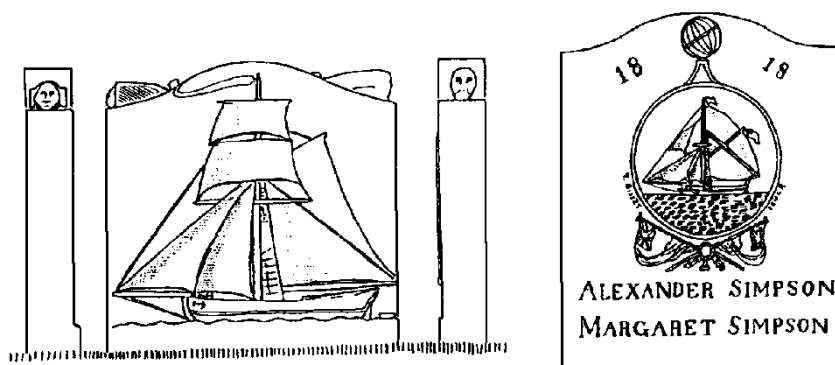
Meanwhile, in 1772 the Carron Wharf Co became bankrupt, although it continued to trade under the authority of its trustees. Finally in 1778 the ships were sold. Captain William Elphinstone undertook the task of transporting Carron goods thereafter, until he sold his interests to David and Adam Gordon and in 1782 the Carron Co started to run it directly. It was during Elphinstone's time that the Carron Wharf at Grangemouth was built, taking full advantage of the new river cut (Campbell 1961, 116; for further history of the Carron Line see Bowman 1979). This was symbolic of the rise of Grangemouth at the expense of Carronshore. By the 1790s the shift was readily apparent. *"According to a list of the inhabitants taken by the present minister in 1783, the number of souls was then about 730; but since that time it has considerably decreased, owing among other causes, to the shipping having been, in a great measure, removed from Carron shore to Grangemouth, on which account, several houses in this parish have been taken down,*



and others are left without inhabitants" (Dickson 1790, 185). A temporary reprieve for Carronshore came as a result of the greatly increased trade in armaments brought about as a result of the Napoleonic War. Joseph Stainton, the manager of the Carron Company, personally supervised the loading of canon and shot into the waiting vessels at the port. None were allowed to sail with partial loads. These ships were also armed with [Carronades](#) by the Carron Company. The Carron ships soon earned a great reputation for fighting off French privateers, at the same time spreading the name of the new weapon. It was a sound investment which meant that the Carronade sold well, and the Carron ships could sail without the need to wait for a convoy.

Illus 13: Advert from the Edinburgh Evening Courant of February 1782 for a ship sailing from Carronshore to London.

It was a sound investment which meant that the Carronade sold well, and the Carron ships could sail without the need to wait for a convoy.



Illus 14: Two gravestones in Bothkennar Churchyard depicting topsail schooners.

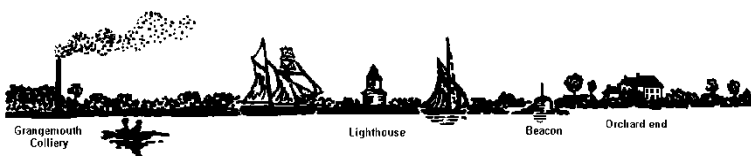
The Royal Navy naturally cast an envious eye not only upon the weapons, which the Admiralty bought in large numbers, but also upon the crews of these merchant vessels. However, the press gangs that visited Carronshore were rarely successful. The

sinuous nature of the river immediately downstream of the port meant that the approach of naval vessels was easily, and early, detected. At the first sign of a visit the sailors all ran into the Carron Works. Surrounded as it was by a massive wall designed to reduce pilfering, and to protect the ordnance supplies from foreign hands (and local rebels such as the Radicals of 1820), once the large gates were closed the sailors were safe. Nor would the manager give them up, for he too needed sailors. Likewise, the Carronshore



sailors were quite safe from press gang and privateer alike on their well armed ships. Smuggling, landing cargoes from the Continent at night to avoid duty, also kept some in 'business' at Carronshore. No one dared to inform on those involved. In such a close community an informant did not stay long; they were either driven out or, in some cases, killed (Falkirk Herald 1861).

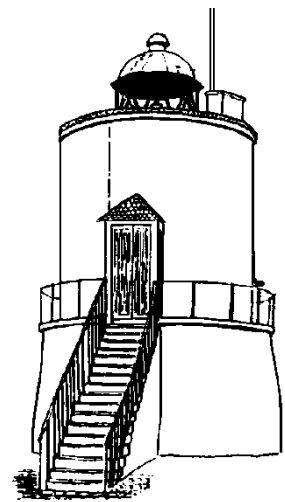
In 1810 the waggonway from the Carron Iron Works to a basin on the Forth and Clyde Canal at Bainsford was constructed and by this means goods bound for Glasgow and the west by-passed Carronshore altogether. For eastward bound goods an Act was obtained in 1814 for a towpath to the mouth of the Carron. In the early 1840s the facilities in Grangemouth were considerably improved with the gouging out of a large wet dock which meant that ships could be kept afloat when the tide was out and no longer had to be beached on the mud. Some of the material from this excavation was used to construct banks along the River Carron as it wound its way across the sleeches into the Forth Estuary, thus joining the beacons together in this area. These banks or moles were secured with timber piles and, on occasion, old boats: "*We lifted the Grangemouth Lighter belonging to Mr Joseph Bog and took her to Carron River entrance and placed it on the West side of the Beacon and put a few Punt loads from Dredging Boat on board but the stuff was no sooner put on board than the vessel rent asunder and the upper works separate from the bottom so that the vessel will not answer to the purpose intended that of making the Beacon more conspicuous at Night*" (Wilson's Log 27 August 1839). They were then clad with a facing of stone to reduce erosion, and some of the beacon sites reconstructed as stone platforms (see RHP 292). At around the same time a pioneering lighthouse tower with a large expanse of plate glass was added to the end of the south mole by the Canal Company, together with an access road. The light was of a brilliant red colour produced by a dozen large Argand lamps. A reflector on the beacon terminating the northern mole aided its function. This arrangement is shown on an Admiralty map of 1852.



**Illus 15: Sketch of the vignette on the 1852 Admiralty map – “Orchard end open to the Northward of Grangemouth outer Beacon clears the Mud Bank off Saltcotes.”**

However, the river could not be completely tamed and in March 1850 it reminded the people of Grangemouth of its former fury. In that month it rose several feet higher than the highest Spring Tide:

*"An alarm was given about 4 o'clock in the morning, that the tide was overflowing the quay, and considerable excitement was manifested in Middle Street. The people were crossing knee-deep, and in several of the low houses the water was from three to four feet deep. The movable furniture and children's beds were all set afloat, and a number had to make their escape by the windows. At the time when the water was at its height, the north embankment, east of the Coal Wharf, gave way to the extent of fifty feet, when the adjoining fields, which lie low, were laid under water, soon presenting the appearance of a spacious basin. On the following day, two vessels - the Catherine of*



**Illus 16: The Lighthouse at the mouth of the River Carron.**

*Newburgh, and Jane of Montrose - while leaving the harbour, were drawn through the broken embankment into the large basin just referred to, and it was with great difficulty that, by the united aid of steamers and men, they were again brought into the Carron.*" (Stirling Observer 30 January 1851).

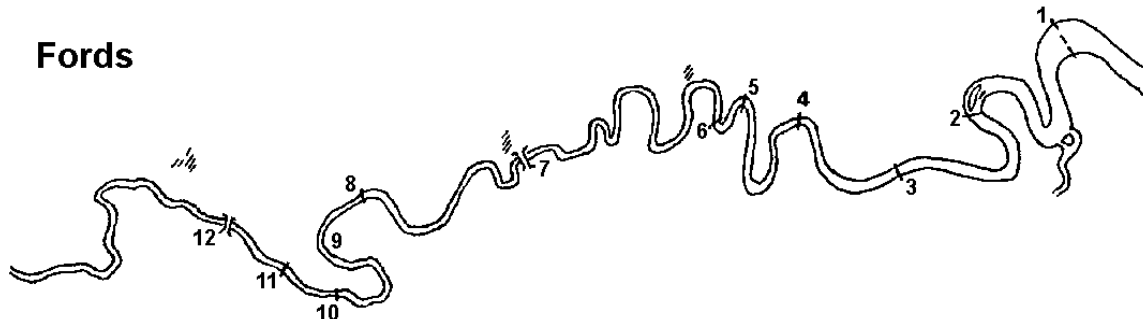
The final blow for the old port of Carronshore, and hence the upper river, came in 1850 when the Carron Company gave up using its wharfs. A year later the first of the Carron Line steamships docked at the deeper water to be found in Grangemouth, thus ensuring that there would be no return. The growth and development of Grangemouth is a fascinating story, and it is not hard to trace in its rise to supremacy the influence of Lord Dundas as chairman of the Canal Company, but that tale must be told on another occasion.

[Appendix / .....](#)

## APPENDIX I

### *Fords on the River Carron*

These are listed from the mouth of the River Carron upstream.



- (1) **HEWK FORD** at the point where the Carron used to enter the sleeches of the Forth (Smeaton 1768).
- (2) **NEWTON FORD** near Greenbrae, crossed on horseback at low tide (Johnston 1723).
- (3) **KERSE FORD** just upstream from the later Kerse Bridge. Also called JEMMY RAES FORD (Smeaton 1768, 21). The shallowest part of the river below Carronshore.
- (4) **BACKROWFORD** (Johnston 1723; RHP 242) at the north end of the Bonny Meadow loop.
- (5) **GAIRDOCH FORD** at the north end of the northern loop immediately east of Carron House (RHP 242).
- (6) **FULDERHAUGH FORD** on the bend below Carron House where the doocot now stands (RHP 44339).
- (7) **CARRON FORD** just downstream from the later Carron Bridge. This ford became very busy after the establishment of the Carron Iron Works and many drowned here (Love 1908, 2). It is often referred to as STENHOUSE FORD.
- (8) **FORD** shown on early O.S. maps north-west of Dorrator House leading to Carronvale House.
- (9) **FORD** shown on early O.S. maps west of Dorrator House and still used by the farmer for his tractor.
- (10) / .....

- (10) **DORRATOR FORD** just downstream from the footbridge which gives access to Carronvale Road to the north. There were stepping stones here up until the turn of the nineteenth century and the place is sometimes referred to as the Steps. They were only passable in the summer months.



Illus: Dorrator Ford and "Swing Bridge."

- (11) **KING'S FORD** a short distance upstream from Dorrator Bridge, shown on a map of 1759 (RHP 1531).
- (12) **LARBERT FORD** below Larbert Bridge. Johnston (1723) states that it was defended by an artillery mount (Castlehill) which also covered the bridge and so this cannot be the King's Ford as is sometimes stated.
- (13) **DUNIPACE FORD** downstream from the later bridge (Johnston 1723). The main road led due south along the west side of the Hill of Dunipace to the ford. It was used by drovers but became famous when Primrose, the owner of [Dunipace House](#), led the Jacobite army across it in 1746 to surprise the government forces then in Falkirk. Primrose was subsequently executed. The incident nicely illustrates the unpredictable nature of such crossings and the need for local guides. It also emphasises the problems that 'foreign' armies had in understanding the local terrain.
- (14) **MILL FORD** is mentioned in the 1794 Register of Sasines and is presumably that shown on General Roy's map of c1755 just to the west of the present motorway bridge.
- (15) **DENNY GUNNERSHAW** (Johnston 1723).

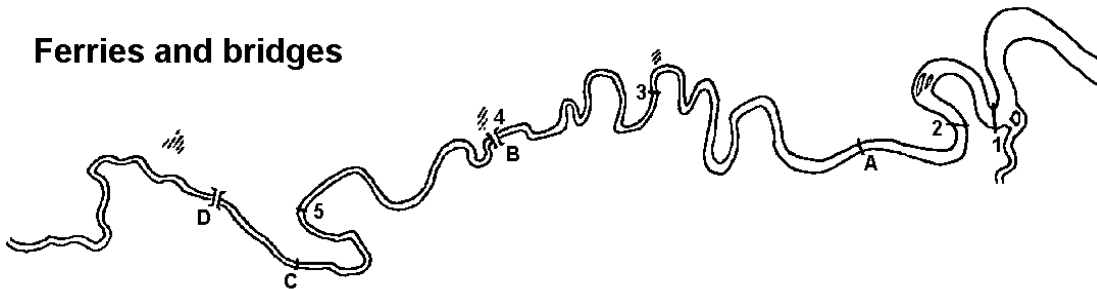
[Appendix II](#) / .....



## APPENDIX II

### *Ferries on the River Carron*

#### Ferries and bridges



- 1) **FERRY GREEN POINT** see map (Johnston 1723) probably also known as GRANGE POW MOUTH FERRY.
- 2) **NEWTON** or **BURNS FERRY** (Johnston 1723).
- 3) **COAL SHORE FERRY** (Johnston 1723), Carronshore. Marked on Roy's map of c1755 and on early editions of the O.S.
- 4) **STENHOUSE DAMHEAD** Coblebrae, Bainsford (Johnston 1723) known as BLACK'S BOAT. A map in Register House shows this as just upstream from the later bridge (RHP 44353), although the place name "coblebrae" (which refers to the coble or boat used) is downstream.
- 5) **DORRATOR FERRY** a ferry is marked to the south-west of Mount Carron on early O.S. maps.

The coincidence of fords and ferries confirms that at High tide the former merely turned into the latter.

[Appendix III](#) /.....

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## APPENDIX III

### *Bridges on the Carron*

#### **KERSE BRIDGE (A)**

Built over the River Carron by Stirlingshire County c1805 (Graham 1812) to take their new turnpike road from Polmont to Stirling, about 1.5 miles from the confluence with the Forth Estuary. It had four stone arches with a wooden draw bridge 30 feet long in the centre for the purpose of letting vessels past. Roundels were placed in the sides above the piers. In March 1806 when tolls were advertised for roup the bridge was simply called the "New Bridge" (a1.659). In 1860 there was a toll-house to collect the half penny dues which defrayed the annual expenditure on the structure (OSNB). The bridge was known locally as the "Pay Brig".

The site lies just downstream from an earlier ford. In 1934 the present Kerse Bridge was erected immediately to the east of the old one and at low tide the pier foundations of the old one can still be seen. Bores showed that the ground consisted of 5ft of mud and stones, then 3ft of sand and gravel, and finally 83ft of soft silty clay. Consequently a new type of collar pile was used for the foundations of the 1934 bridge. A tapering pile was driven through a collar until the two joined and were then driven another 5ft into the ground (Porteous 1972, 21)

Repairs on the concrete structure were undertaken in 1991.

**Kerse Bridge SMR 1038**

**NS 9102 8226**

#### **CARRON BRIDGE (B)**

With the foundation of the Carron Iron Works the ford on the River at Stenhouse Mill dam grew considerably in importance. However, with an uncontrolled river, crossings were unpredictable and hazardous. In 1773 a charity play was put on at the Theatre Royal in Edinburgh by Nicolson Stewart of Carnock in order to raise money "*for the humane purpose of building a Bridge over the River Carron where many lives have been lately lost*" (Love 1908, 2). The following year saw the local landowners committing themselves to the project, with Sir Laurence Dundas generously subscribing £150 (Edinburgh Evening Courant 26 November 1774). On 19 April 1775 the foundation stone was laid by Sir Michael Bruce of Stenhouse. A stone bearing the initials and date "W.G. I.M., 1775" has been rebuilt in the later bridge. The initials are presumed to be those of the builder, William Gibb, and his partner, the wright John Moir. The total cost was in the region of £3,000 of which the Carron Company contributed only a small fraction (Reid 1992, 89). In April 1777 a sum of £30 Sterling was allowed by the Road Trustees towards "*furnishing a parapet wall and other ways at the south end of the bridge*" (Love 1908, 5). Road Acts in 1778 and 1810 gave the Trustees power to raise the necessary money for the bridge's maintenance.

With the advent of electric tramways in 1905 the old structure was considered inadequate and a new one was designed to take the added weight of the trams. The old bridge was demolished with explosive charges. The Carron Company gave £250 towards the costs, and handed over the iron bridge (see below) gratis. The iron bridge was used temporarily whilst the new one was being erected. The Tramway Co gave £750 to the cost; the remainder of the £3715 expenditure was shared between the burgh and the county. The new bridge was designed by David Ronald, the Falkirk Burgh engineer, and William

Ballantine, the road surveyor for East Stirlingshire. Mason work was by John Gardner of Falkirk, and steelwork by Somervail and Co, Dalmuir.

Carron Bridge, Carron      SMR 999      NS 8822 8238

### IRON BRIDGE

In 1811 the Carron Co erected an iron bridge on the west side of Carron Bridge. This connected the works by wagon way to a basin on the Forth and Clyde Canal at Bainsford and was in use until c1860. It was taken down in 1906 when the new bridge at Carron was finished (Metcalf 1949, 85).

Carron Iron Bridge      SMR 1000      NS 8822 8238

### HIGH LEVEL BRIDGE

A high level bridge was erected to introduce a railway into the heart of the works. It bears the date 1860 on the south-west springer of the southernmost arch. It is shown on the drawing of the Carron Works in the 1880s.

Carron Works Railway Bridge      SMR 241      NS 8804 8233

### DORRATOR BRIDGE (C)

This bridge was built just upstream from Dorrator Ford. It cost the Eastern District of Stirlingshire County Council £225 in June 1893. It was a wire rope suspension bridge some 90ft in span by 4ft wide. The steel rope was provided by Louis Harper of Aberdeen and is anchored at either end in a 35 ton concrete block. It is also known as Carronvale Suspension Bridge or, due to its lateral movement as the "Swing Bridge." The decking was stiffened in the 1980s to reduce the swing. In 2014 it was demolished and replaced by a tubular steel structure at a cost of £247,000.

Dorrator Bridge (Carronvale or Swing Bridge)      SMR 1640      NS 8668 8133

### LARBERT BRIDGE (D)

A bridge is believed to have been built in the vicinity of Larbert during the Roman period on the line of the road from Camelon to Stirling. This road continued in use for some time, but had been utterly removed by the middle of the eighteenth century (Nimmo 1770). The site of the Roman bridge marked on Ordnance Survey maps is based solely upon the discovery in 1773 of stone piers, but these probably belonged to a later bridge.

By the eighteenth century the road lay on its present line. As it corresponds to an early property boundary it is reasonable to assume that it took this line from an early date. Pittscottie mentions a bridge in 1452 which may have been Larbert Bridge. A bridge here can also be inferred in 1651 from a reference of 1723 (Johnston 1723) which states that a battery of canon was placed at Castlehill, Larbert, for the defence of the bridge and ford by Charles II. The bridge at this time probably stood at the bottom of the Low Town of Larbert, near the later Carron weir. The stones discovered in this area in 1773 by workmen constructing the new weir for the Carron Co (Nimmo 1817, 26) may have been from this bridge. In 1664 the Falkirk Kirk Session noted "*the defects of the bridge of Lerbert*" and collected £29 16s Scots for its repair.

In 1707 Parliament passed an "Act in favour of James, Earle of Linlithgow and Callendar, for a toll on the bridge of Larbor for 22 years." The Act is in these words: "*Our Sovereign*

*Lady the Queen's Majesty and the Estates of Parliament considering that the bridge of Larbor upon the water of Carron was built by the Earle of Linlithgow his predecessors upon their own charges, and being upon the highway and publick road from the west to Edinburgh and from the north to the south parts of the kingdome, the said bridge and wayes and cassayes leading to and from the same, and the caussay of the Town of Falkirk belonging also to the said Earle, are much damnified and impaired by the continual passing of carts and loaded horse, and requires a considerable expense to uphold and preserve the same for the commone benefite and advantage of the liedges, therefore Haer Majesty with consent of the Estates of Parliament appoints and allows four pennies Scots for each cart, two pennies for each loaded horse, and twelve pennies Scots for each score of all droves of cows that shall pass along the said bridge of Larbor or town of Falkirk, to be exacted and uplifted by the said Earle of Linlithgow or those Commissioners be him. To be employed for preserving, repairing, and upholding of said bridge, ways cassays of Falkirk, and that for the space of 21 years after the date thereof."*

The bridge had two stone arches (Johnstone 1723). In 1733 flooding destroyed two bridges on the Carron, one of which was presumably Larbert Bridge (Love 1908, p.2). Another bridge, again of two arches (RHP 1496), was then constructed for in 1956 the Royal Commission noted the remains of an early eighteenth century bridge abutment next to the present stone bridge at Larbert (RCAHM 1963, 413). This bridge and the corresponding roadway were at a lower level than the later bridges. The access to the bridge was altered in 1761 when the road from Castlehill was led down to it. Prior to this it had been along a road from the Low Town along the north side of a mill lade running parallel with the river. Lade and road were incorporated into the new lade for Carron Iron Works, and hence the need for the new road. The bridge, now on the turnpike road between Falkirk and Stirling, was extremely narrow and in 1781 it was discovered that the foundation had failed and one of the arches rent (Edinburgh Courant 4 August 1781; Love 1908, 8).

The following year a new bridge was completed and is still standing. It bears a roundel inserted in the north-west parapet towards its south-west end and inscribed "1782," and the feebly carved initials "T.A." Including the approaches, it is 56yds in length and is 27ft wide over its parapets. It is carried by two arches, the larger one to the south-west spans the main channel of the river (c44 ft) and the smaller one to the north-east provides a passage for floodwater. The pier has a splayed and pointed cut-water both upstream and downstream. The arches are defined by drip-moulds.

**Larbert Bridge**                      **SMR 231**      **NS 8594 8185**

### **DUNIPACE BRIDGE**

The first bridge on this site was built in the year 1825 under the direction of James Walker junior, Falkirk, surveyor to the Road Trustees of the Eastern District of Stirlingshire. Prior to that date there had been an important ford a little further downstream. On the west side of the bridge a decayed inscription reads: "Erected/ A.D.1825./ By the Trustees of the Peathill and Redrow Road./ James Walker, Falkirk, Engineer." On the east side: "Built/ by/ Thomas Gray, Mason,/ Lesmahagow And/ Christopher Cairns/ Road Contractor,/ Stirling, 1825." The bridge is 104ft long, the span of the middle arch being 32ft, and that of each side arch 28ft. A toll-house was located to the south and known as "Dunipace Bridge Bar". About 20ft of the east parapet were lost when a lorry crashed through it in 1940 into the river below.

**Dunipace Bridge**                      **SMR 413**      **NS 8347 8164**



**DENNY BRIDGE**

When the first bridge was constructed at Denny is not known but it is reasonable to assume that it was early and associated with the castle at Herbertshire. It is shown on Pont's map of Stirlingshire in the mid 16<sup>th</sup> century. In July 1636 the Earl of Wigtown witnessed the bridge at Denny being washed away by floods (Privy Council Records, 2 July 1636). The bridge stood on the Stirling to Glasgow road and would therefore have been speedily replaced, only to suffer a similar fate in June 1733 (Love 1908, 2). This bridge had two stone arches (Johnstone 1723, 332). Almost a century later, in 1828, the new bridge was taken down "*being considered unfit, from its height and narrowness, for wheel-carriages of the present day*" (NSA p.386). Its remains were noted by the Royal Commission (RCAHMS 1963, 416). The replacement had four arches (OSNB). Today it is still possible to see two large arches with a small arch to the north to accommodate the mill lade from Herbertshire Paper Mill. The west parapet has been replaced by a metal railing, but the original stone inscription remains on the east bearing the words "Rebuilt 1828" in the centre facing the carriageway.

Although all the later bridges have stood on the present site it is possible that the earlier ones lay further to the east on the line of the main road to the east of the parish church. Such a position would suit the road pattern in this area better than the present one. In 1801 a wooden bridge is mentioned here at East Boreland in the Register of Sasines.

Denny Bridge      SMR 761      NS 8078 8306

**CARRONBRIDGE**

This bridge carries the road from Glasgow to Stirling via Kilsyth. It appears as "Old Brigg" on Pont's map of Stirlingshire which was surveyed c1570. Presumably there was a "New Bridge" somewhere by this date. It was known as the New Bridge of Carron in 1701 (Sibbald 1707) and an inscribed stone, over the south arch of the present bridge, bearing the date 1695 in large letters gives the date of the original structure. Another stone, to the north of the first, is badly damaged but reads:".....ON/ .....N/.....S .....D, / THIS BRIG THE/ SOVME OF THRE H/ VNDRED MARKS". North of this again is a stone inscribed "Rebuilt 1715". It would have been this bridge which Daniel Defoe crossed in the 1720s. After prosaically describing the river with its large boulders he passed over the one arched bridge "*'tis finely built of Freestone, but rises so high, the Shores being flat, and the Walls on either Side are so low, that it is not every Head can bear to ride over it. The Truth is, there was Need to build the Bridge but with one Arch, for no Piers, they could have built in the Middle of the Channel, ever could have born the Shock of those great Stones, which sometimes come down this Stream.*" (Defoe 1726). The Statistical Account of 1796 described it as possessing one large and one small arch, much as it is today, although yet another stone does say that it was "REBUILT 1907". The structure comprises a straight central section, the bridge proper, measuring 126ft long by 13ft 3in wide over the parapets which are 1ft 3in thick and 4ft high. Curving approaches at either end bring up the total length to 182ft. The southern span is 47ft 6in, the northern 22ft 6in.

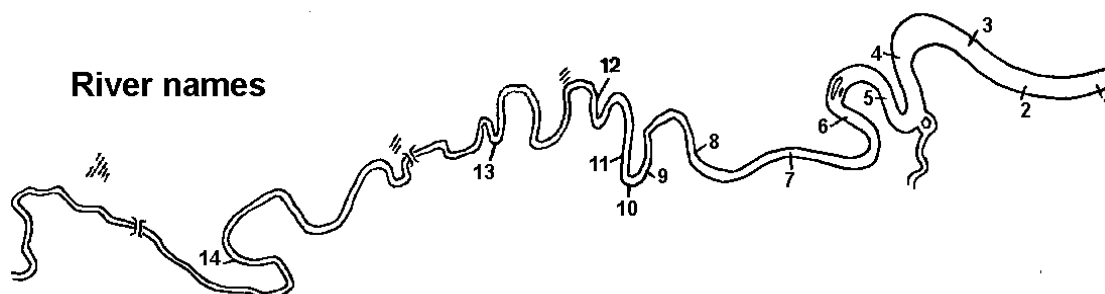
Carron Bridge      SMR 1289      NS 7410 8351

[Appendix IV /.....](#)

## APPENDIX IV

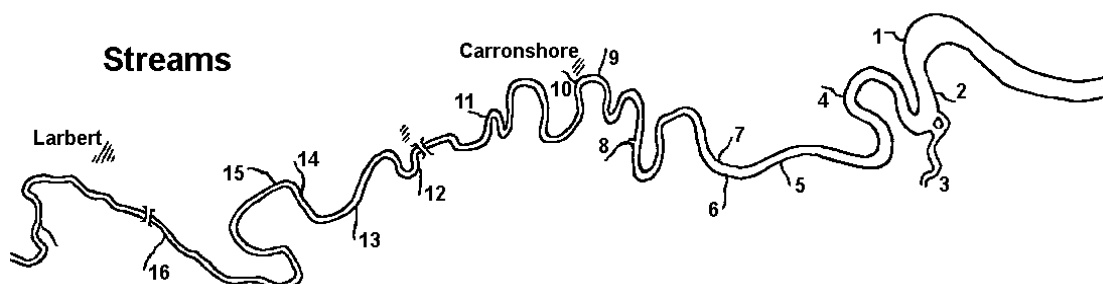
### *River Names*

1. Sea Reach; 2. Hole Merry; 3. Heuck Reach; 4. Greenbrae Reach; 5. Newton Reach; 6. Daggedy Reach; 7. Raes Reach; 8. Lower Reach of Bonny Meadow; 9. Upper Reach of Bonny Meadow; 10. Meggats Wheel; 11. Gairdoch Reach; 12. Full Reach; 13. The Pamphel; 14. Bains Crook.



### **Streams feeding the Carron**

1. Chaldron Slap; 2. Heuck Pow; 3. Grange Burn; 4. Newton Pow; 5. Dalgrain Pow; 6. Dalderse Pow; 7. Hemmings Pow; 8. Salt Pow; 9. Fulderhaugh Pow; 10. Quarrel Pow; 11. Mill Pow; 12. Mungal Pow; 13. Dorrator Pow; 14. Crownest Burn; 15. Broomage Burn; 16. Lightwater Burn.



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