INTRODUCTION

My motivation in making this compilation is two-fold: namely, to bring together within the confines of a modestly sized volume a representation of what has been written and recorded of the river and firth of Clyde over a period of four and a half centuries; also to express my gratitude to Clutha for the many very happy years which I spent on her banks in my youth and later during all too infrequent visits to Glasgow.

Arranging the material by subject presented problems, particularly when a work had features of a guide and could also be judged to be of a general nature. In some instances such a work is listed in both sections. Many books on Scotland include a section on the Clyde, but only when it forms an important part, as in antiquarian works, has the Clyde portion been collated and any illustrations particular to it listed.

In order to reduce the number of sections, I have grouped some of the smaller subjects together. I have excluded Acts of Parliament because they are so numerous as to require a separate work. I have included a few items dealing with the Forth and Clyde Canal although the subject is not the basic concern of this bibliography. It seemed reasonable, moreover, to record Patrick Miller's account of the Symington boat on Dalswinton Lake as obviously relevant to the development of steam navigation on the Clyde.

Items are listed alphabetically by author or if the name is not known, by title or institution responsible for publication. I have used the colon rather than the oblique to separate items of the collation. The descriptions and extracts in the annotations are literal; that is, I have retained the original spelling of place names which have altered over the centuries: e.g. Arroquhar (Arrochar), Cora, Corie (Corra), Dalnotar, Dalnotter, (Dalnottar), Dunbarton (Dumbarton), Fine (Fyne), Inverary (Inverary), Kelburn, Kelburne (Kelbourne), Lyn, Linn, (Lynn), etc. I have also retained other original spellings in early works, as in the "Description of the Western Isles" (1549) by Donald Monro.

Engravings, and historically important illustrations including photographs (those by Annan, for example), are described in detail. The source of each work is indicated at the foot of the entry by the initials of the library or other institution where it was examined; many of the 19th and 20th century items are available, however, in more than one site. Some information which could not be conveniently placed in the text has been added as appendices.

This volume does not attempt to be encyclopaedic but to be a useful source of reference and a basis for research. It would be vain to expect the text to be free of faults either of substance or of form. The author would be grateful for additions and corrections.

ACKNOWLEDGMENTS

Almost all the research for this work was done in libraries in Scotland and in London and I record with considerable gratitude and pleasure the unending help which I have received from the staffs of so many of them.

In the Mitchell Library such persons as Joseph Fisher, Murdoch Nicholson and Fred Mitchell, all of them departmental heads, and their charming and courteous assistants made the many hours pass comfortably.

At the district libraries at Greenock, Ardrossan, Ayr, Dumbarton, Hamilton and Lanark, free access to the shelves considerably reduced the time recording information. I thank the local history librarians for this generosity.

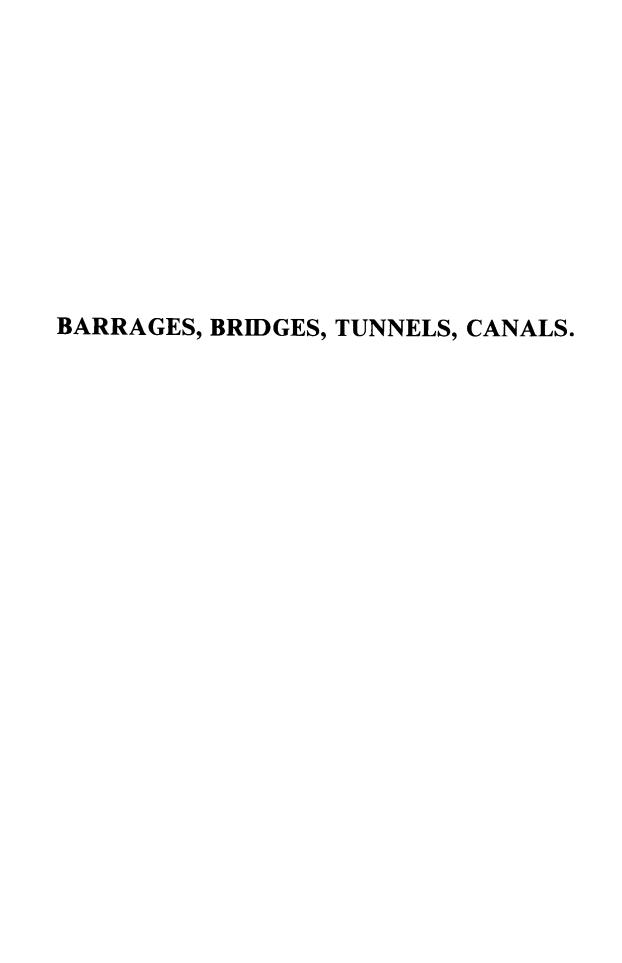
With William Scott at Kirn, I spent many happy hours collating from the large collection there and also recall with delight the journeys over the 'watter' to Dunoon during this period of research.

It is my pleasure to acknowledge, in addition, the cooperation freely given by the staffs of the National Library of Scotland, the National Museum for Scotland, the Faculty of Procurators, Glasgow, the Institution of Civil Engineers, London, the British Library, Fred Walker at the National Maritime Museum, and Francis Herbert at The Royal Geographical Society, London.

Messrs, Brown, Son and Ferguson kindly allowed me to reproduce in full the list of the excellent illustrations by Alasdair Macfarlane from his book "Maritime Drawings", of which they are the publishers. Tony Campbell, head of the Map Department of the British Library, granted me the privilege of reproducing the complete list of Clyde maps. Both lists will be found as appendices to the text of this book. I have not been able to trace the copyright owners of the bibliography "Scenery of Great Britain and Ireland" by Major J. Abbey, from which I have quoted in part a few works not available for personal inspection.

Philip and Lisa Cohen, my nephew and his wife, helped me in the preliminary stages of this work. Dr. Irma S. Lustig contributed her considerable editorial skills in many ways. I also thank her sincerely.

To my son Philip



BALD, WILLIAM.

GENERAL REPORT ON A PART OF THE RIVER CLYDE BETWEEN JAMAICA STREET BRIDGE AND THE GLASGOW WATER WORKS.

Glasgow: Printed by James Hedderwick and Son. 1839. pp. 12. Paper covers. 216×136 mm.

Note.

In order to accommodate larger vessels he advised a single excavation on the side of the earthen bank of the river, bordered with a small cheap wharf constructed of homegrown timbers, below the present quay wall.

Also, to open the upper reaches to navigation, he urged removal of the weir at New Bridge but this was opposed by the Water-Works as it would lower the water level.

I.C.E.

BELL, R.B. AND R.D. MILLER.

REPORT UPON HUTCHESONTOWN BRIDGE ... AND EXPEDIENCY OF BUILDING A NEW BRIDGE

Glasgow: James Hedderwick. 1864. pp. 17. Paper covers. 205 × 135 mm. Note.

Hutchesontown Bridge built about 1830, had become unstable as the river bed had fallen. He advised, in order to raise the river bed, that a barrier be put up 30 ft. above the bridge on each side across the river, using iron piles packed in between with slabs of stone and rubble. The alternative was a new bridge of iron, with 3 spans of 50 ft.

M.L.

BISSLAND, VAL.

THE BRIDGES OF THE CLYDE.

The Scots Magazine 125. (1986). 186. 50 bridges are described: 12 coloured photographs.

BLACKIE, JOHN JUNR., J. MICHAEL ET AL.

REPORT BY THE DEPUTATION TO LONDON RE THE GLASGOW BRIDGES BILL.

Glasgow: The Council. 10th July 1865. pp. 9. Paper covers. 215 × 140 mm.

Note.

Concerns the rebuilding of the Glasgow Bridge and removal of the weir.

BRINDLEY, JAMES, THOMAS YEOMAN AND JOHN GOLBOURNE.

NAVIGABLE COMMUNICATION BETWEEN THE FIRTHS OF FORTH AND CLYDE.

13th, 23rd, AND 30th SEPTEMBER 1768.

Edinburgh: Balfour, Auld and Smellie. 1768. pp. 44. Paper covers. 216×136 mm.

Note.

One report by Brindley, two by Golbourne.

I.C.E.

BRUCE, ROBERT.

RECONSTRUCTION OF THE TIDAL WEIR, RIVER CLYDE.

Glasgow: Office of Public Work, City Chambers. 1950. pp. 15: 8 photographs.

Paper covers. 265×205 mm.

Note.

Prior to 1894 there had been three fixed weirs of solid wall, with sluices for passage while still maintaining water levels above. In 1901, a weir with three gates liftable was built 120 yards above Albert Bridge, but after a period of heavy rainfall in 1942, partial collapse had occurred.

I.C.E.

CAMPBELL, CHARLES.

THE ADVANTAGES, STRATEGICAL AND COMMERCIAL, OF A BATTLESHIP AND OCEAN-GOING STEAMER CANAL BETWEEN THE FORTH AND CLYDE.

Scott. Geog. Mag. 25. (1909). 414.

Illustrated with two maps and a panorama drawn by Harold Oakley, reprinted from the "The Graphic" 12th June 1909.

Note.

The scheme included a canal from the Clyde west of Dumbarton to Loch Lomond near Balloch and another from the east side of the Loch running north-east to the Forth in a curve, ending just above the Carron Iron Works. In addition to this there would be another canal from the head of Loch Long to Loch Lomond. This would give a choice of routes to or from Loch Lomond.

Strategically, there would be easy and rapid access to the North Sea viz a viz the German Fleet, where the threat from the German Navy was greatest, and commercially it would give ready access to the continent from the west coast.

(Author = Vice-Admiral Sir. C. Campbell).

CLYDE TUNNEL OPENING.

Souvenir of the Opening by H.M. Queen Elizabeth on 3 July 1963.

Glasgow: The Corporation of Glasgow. 1963.

pp. 28: 16 photographs, one in colour, 5 diagrams and map.

Calf, title in gilt and City Arms on t.c. 210×140 mm. M.L.

L. Br

CONSIDERATION ON THE PROPOSED CANAL.

For Making a Communication Between the Firths of Clyde and Forth. (Anon). 1767.

Bill to Parliament: pp. 3. 303×190 mm.

Note.

The suggested canal, shorter than that proposed by Smeaton, would extend from the Barns of Clyde to near the Carron Works, and would be 29 miles in length. It would take boats up to 36 ft. long, 9 ft. beam and 3 ft. 6 in. draft.

B.L.

CORPORATION OF GREENOCK.

CLYDE BARRAGE PROJECT.

Greenock: The Corporation. July 1953. pp. 20: 1 photograph: 13 plans and maps. Paper covers, ring bound. 225×318 mm. Note.

The scheme was for an 130 ft. wide causeway with a lock system across a three mile stretch between Greenock and Ardmore Point on the north bank. This would impound a 20 mile non-tidal basin on its upstream side which would raise the water level 5 ft. above the present depth at high water. It would create a constant depth of water of 40 ft. at Glasgow, which then varied between 25 and 35 ft.

I.C.E.

ERSKINE BRIDGE PROJECT.

[Erskine]: The Bridge Administration, 1964. pp. 24: 7 photographs, maps, plans, and diagrams. Paper covers, cover photograph. 212 × 300 mm.

D.D.L.

ERSKINE BRIDGE (SCOTLAND).

Opened by H.R.H. Princess Anne on 2nd July 1971.

[Glasgow]: The Sheridan Group. 1970.

Photographs by W. Ralston Ltd. Glasgow. Printed by L. Bell and Co. Ltd. Leicester and London. Freeman Fox and Partners Consulting Engineers.

pp. 21: 13 photographs in b. and w.: 12 maps, plans and diagrams.

Paper covers. 300×210 mm.

Note.

The list of firms etc. engaged in planning and construction is on p.21.

Author's collection.

ERSKINE BRIDGE ADMINISTRATION.

Erskine Bridge Scotland. E.B.A.: Erskine. 1972.

pp. 18: photographs.

Paper covers. 220×320 mm.

A FULL ACCOUNT OF THE DESTRUCTION OF THE WOODEN BRIDGE AT GLASGOW ON THE KING'S BIRTH NIGHT, APRIL 1821 WHEREBY BETWIXT 20 AND 30 PERSONS WERE KILLED OR WOUNDED.

Glasgow: Printed by John Muir. 1821.

Broadside, 262×167 mm.

Note.

A riot had broken out and people rushed onto the bridge, the side railings gave way and many fell into the river. Soon after the bridge itself collapsed.

G.U.S.S.

GEORGE V BRIDGE, GLASGOW.

Concrete and Constructional Engineering. XXIII. 1. No. 242. (January 1928). 1-21.

Leading article: 11 photographs: 2 figures.

See Thomas P.M. Somers.

M.L.

HAXTON, A.F. AND H.F. WHYTE.

CLYDE TUNNEL CONSTRUCTION PROBLEMS.

Proc. Instn. Civ. Engrs. 30. No. 6826 (March 1965). 323-46.

Illustrated with 5 photographs and 9 sheets of drawings from which plates 3 and 4 and the figures in text have been published.

Note.

The twin tunnels are cast-iron lined, with internal diameter of 29 ft 6 in. Difficulties arose because of the variable strata and they describe the particular ones during deep excavation for one of the cut-and-cover portal structures. Constant care was taken in regard to compression and decompression. Compression air illness was high during the sinking of the first shaft but this was improved upon by lengthening the decompression stages. There were 469 cases of recompression, 85% being simple 'bends'. Seventy-one induced complications occurred, two being fatal due to respiratory complications. Six types of clinical problems are listed.

KINGSTON BRIDGE, GLASGOW.

Opening by H.M. Queen Elizabeth the Queen Mother 26th June 1970.

Glasgow: The Corporation of City of Glasgow. 1970. Brochure: pp. 4: map. Paper covers. 205 × 218 mm.

--- ANOTHER BROCHURE.

Glasgow: Corporation of City of Glasgow. 1970. pp. 21: 12 illustrations, photographs, sketches, and plans, some figs. with more than 1 item. Boards, title on t.c. 140×205 mm.

M.L.

LESLIE, JAMES AND ANDREW DUNCAN.

REPORT ON THE REMOVAL OF THE WEIR AT HUTCHESONTOWN BRIDGE.

Glasgow: Robert Anderson 22 Ann Street. 1865. pp. 12. Paper covers. 212 × 125 mm.

G.U.S.S.

LINDSAY, CHARLES C.

ON DESIGN AND CONSTRUCTION OF PARTICK BRIDGE.

From Trans. IESS. XXI. (1877-78).

Glasgow: William Munro, 81 Virginia Street. 1878.

pp. 20: 5 plates.

Paper covers. $215 \times 140 \text{ mm}$.

--- CROSS RIVER COMMUNICATION WEST OF GLASGOW BRIDGE. 1897.

pp. 7. Six sheets of plans.

- 1. General Plan and Elevation of Viaduct and Approaches.
- 2. Plan and Elevation of Towers and Bascule (closed).
- 3. Elevation and Section of Towers and Piers showing Bascule open.
- Sectional Plans and Elevation showing Hydraulic Machinery.
- 5. Survey and Property Plan, with outline of Elevator of Works.
- 6. Sheet of 3 Perspective Drawings, illustrating the Viaduct.

Note.

The scheme was for a viaduct to run from Stobcross Street to Paisley Road. Some aspects of the plan had many similarities to Tower Bridge in London.

In the copy examined four sheets were missing.

G.U.S.S.

MACKAIN, D.

REPORT RELATIVE TO THE DISCUSSIONS CONCERNING THE WEIR ACROSS THE CLYDE AT JAMAICA STREET ... IN CONNECTION WITH THE REPORT OF MR. BALD.

To the Clyde Trustees, Bridge Trustees and Glasgow Water Co.

Glasgow: Printed by James Hedderwick and Son. 1839. Note.

The City magistrates wished to extend the navigation up to Rutherglen. The weir, built in 1775 in order to reinforce the bridge pier foundations which were unstable, was proving to be a serious obstruction. Mr. Mackain was opposed to the removal of the weir as the water above the Broomielaw would be saltwater contaminated. Mr. Rennie in 1807 had denied the ill effects of the weir. The argument went on for many years.

G.U.S.S.

MARWICK, JOHN D.

GLASGOW BRIDGE 1285-1758.

From "Scots Lore" c.1910. pp. 15-29. (not traced).

M.L.

MORGAN, H.D., C. HASWELL, AND E.S. PIRIE.

CLYDE TUNNEL: DESIGN, CONSTRUCTION AND TUNNEL SERVICES.

Proc. Instn. Civ. Engrs. 30. 6831. (1965). 291-332. 20 figs. incl. 8 photographs.

Note.

This is a companion paper to "Haxton and White" ut supra. A short history of the bridges at Glasgow, from the first wooden structure of 1285 to George V Bridge of 1927, is followed by technical information. Each tunnel is two-laned and designed for one way or two way traffic. It has a design capacity, using both lanes in one direction of 1300 vehicles/hour per lane and for two way traffic of 1200 vehicles/hour/per lane. The tunnel had to be in operation before the new road system would be in service; space was limited to allow for adjustment in level between tunnel and the connexion to the new road system. This caused the tunnel to have the "steepest overall gradient of any highway tunnel in the world".

MURRAY, J. BRUCE.

SUGGESTED BARRAGE ON THE RIVER CLYDE:

Report to The Clyde Trust, May 1922: Memorandum and statement by J.B.M. instancing three main problems viz. a new harbour at Renfrew: a barrage and dockization of the Clyde: and a new Forth and Clyde Canal.

Reprinted from "Jour. Brit. Science Guild". May 1922. This is included in a report to the Clyde Trust on the suggested barrage from west of Dumbarton to Finlayston by Fred Palmer and P.D. Donald.

MURRAY, J. BRUCE, GEORGE MANCOUR, J.W. GREGORY AND W.R. SCOTT.

SYMPOSIUM ON THE FEASIBILITY AND ADVANTAGES OF A FORTH AND CLYDE CANAL.

Proc. Royal Phil. Soc,. Glas. LIV. (1925/6). 79-95. **Note**.

Three routes are discussed viz.

- 1. Via Loch Long and Loch Lomond.
- 2. Via Loch Leven and Loch Lomond.
- 3. From Yoker through the Clyde Valley following the line of the old barge canal, i.e. a mid-Scotland canal but this would involve canalising the river Clyde.

M.L.

OBSERVATIONS ON THE PROPOSED RAILWAY AND TUNNEL FOR CONNECTING THE RIVER CLYDE WITH THE CANALS &c. AT GLASGOW: AND ON THE OPPOSITION TO THAT MEASURE:

Addressed to the Magistrates and other Municipal Authorities and Citizens of Glasgow.

Glasgow: Printed by Hutchison and Brookman for John Smith and Son, Glasgow ... MDCCCXIX.

Paper covers. 214×134 mm.

Note.

The writer (anon) claimed that the transport of coal from the Lanarkshire coalfields to the Forth and Clyde Canal and thence to the east coast ports, was very harmful to the future of Glasgow, which should be the chief port for the coal trade. However to enable Glasgow to fulfill this function, the navigation of the River Clyde had to be improved.

N.L.S.