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## The Early Cartography of Renfrewshire to 1864

by John N. Moore

With their detail of past geographical distributions, early maps can be valuable in assisting many fields of local study. Much of Scotland's distinctive cartography was channelled into the brief period between the publication of the Blaeu atlas in 1654 and the Ordnance Survey six- and twenty-five inch sheets which first appeared in the mid-nineteenth century. Despite a scarcity of maps, particularly before the 1750s, Scotland has a uniquely rich cartographic history and the work of early map-makers has contributed to placing 'Scotland among the best mapped countries in the world'.<sup>1</sup>

Unfortunately, this archive of Scotland's past remains largely untapped and study of the maps themselves has been noticeably limited, particularly in the field of listing what exists (cartobibliography), where few areas have been investigated in detail. This work attempts to record those maps relating to Renfrewshire and its burghs of Paisley, Greenock and Port Glasgow. The selected maps are mostly topographical, illustrating the county either as a separate unit or as a major part of a larger area. Maps which cover the whole of Scotland are not discussed, thereby excluding the sheets of the Military Survey, 1747-55 and the one-inch Ordnance Survey sheets. Also omitted are large scale plans of estates or significant portions of the county. As the intention is to be as comprehensive as possible, both printed and manuscript maps are listed. Relatively few thematic maps were published before the middle of the nineteenth century but those unique to the county are again discussed.

Inevitably, certain other important depictions have been excluded. Among these are the excellent road strip maps which appear in *Taylor and Skinner's Survey and Maps of the Roads of North Britain*, published in 1776, and Thomas Richardson's *Map of the Town of Glasgow & Country Seven Miles Round* of 1795. Another category not covered is the series of coastal charts produced by various hydrographers from the time of John Adair to the work of the Admiralty Hydrographic Office. These frequently show much topographic detail of lands on the coastal fringes.

To aid evaluation or identification, descriptions of the contents and historical details of each map are given. Sizes of the area within neatlines are noted and the scale is recorded or estimated. Little is mentioned of map accuracy - a difficult subject in itself - as this was frequently variable, and often detailed studies have produced only generalised statements about precision. Locations in major or local libraries are indicated but should not be regarded as an exhaustive record.

Two important cartographers had strong links with Renfrewshire. John Watt, uncle of James Watt, the engineer, is little known as a surveyor except for a depiction of the River Clyde published after his death. Watt was born about 1687 at Crawforddyke and was probably trained by his father, Thomas. In addition to being a respected mathematician and teacher, he was supported by a salary from Glasgow Town Council from 1720, being engaged in a number of municipal commissions, including a survey of the lands of Provan. Several leading noblemen, including the Dukes of Montrose and Hamilton, employed him to measure their lands. Prior to selling his lands in Inchinnan, the Duke of Montrose had Watt make a detailed survey in February 1728. Four years later, he was responsible for surveying plans of Port Glasgow and the sixteen merkland of Glasgow. Most of his surviving work is now held in Birmingham and includes carefully drawn plans of estates, farms and divisions of mosses, especially in central Renfrewshire. If the commissioning of such estate plans is an indication of attempts at agricultural improvement, the survival and coverage of these documents suggest a greater degree of activity in the county than previously has been considered.<sup>2</sup>

In the second half of the eighteenth century, Charles Ross of Greenlaw made a significant contribution to cartography and land surveying. During a career lasting over fifty years, he drew county maps of Renfrew, Lanark, Dunbarton and Stirling, as well as many estate, road and commony plans. He was also a noted nurseryman, amateur archaeologist and architect. His estate plans often carry comments

and suggestions for agricultural improvement and this may reflect his possible early training as factor on the Hawkhead estate.<sup>3</sup> At the very end of the century, the county was surveyed by the leading cartographer of the day, John Ainslie, whose four-sheet map was a high point in Renfrewshire's mapping. The quality of detail and accuracy of his work remained unequalled until the advent of the Ordnance Survey over fifty years later.

The majority of maps appearing in the intervening years were at much smaller scales and tended to be produced to meet the needs of two main areas of demand - the transport developments of the early nineteenth century, particularly the growth of the railway network, and the resultant expansion in tourism, which led to a great variety of guidebook, gazetteer and local history publications. In addition, specialist maps began to be published to show other thematic distributions, such as soil and geology. The growing demand for up-to-date representations of the county led to a greater frequency of publication. Production costs were kept down by the introduction of new technology, especially following the development of lithographic printing, which facilitated the transfer of features. This appears to have been well established in Britain by about 1825. As the century progressed, maps appear to have been based increasingly on a limited number of original surveys. However, many of these subsequent states do carry information from more than one source or introduce new details. This is particularly true with the indication of railway development, which was given greater emphasis than the mapping of new roads. Comparison of various maps gives a valuable insight into not only the selection of elements behind the production but also those features regarded as the most significant for mapping.

Increasingly, modern technology is allowing map users access to a wide range of digitised cartographic material on the Internet. Where images of maps of Renfrewshire are web accessible, this has been indicated in the holdings by an asterisk. There is one direct link (Fullarton) to a web image.

### Abbreviations

**BL:** British Library

**c:** circa

**CUL:** Cambridge University Library

**ECL:** Edinburgh Central Library

**GCA:** Glasgow City Archives

**GUL:** Glasgow University Library

**McLG:** McLean Art Gallery and Museum,  
Greenock

**MLG:** Mitchell Library, Glasgow

**mm:** millimetres

**NAS:** National Archives of Scotland

**NLS:** National Library of Scotland

**PCL:** Paisley Central Library

**WLG:** Watt Library, Greenock

### MAPS

<b>c1596</b>	<b>PONT, Timothy</b>
	BARONEE OF RENFREW.  Size: 245 x 375 mm. Scale: [[c1: 147840] or c1": 2.3 miles].  NLS Adv. MS.70.2.9 (Pont Manuscript no.33)*

Timothy Pont, the pioneer Scottish cartographer, appears to have single-handedly surveyed the Scottish mainland and islands from about the time of his graduation from St. Andrews University in

1583. However, recent comments by MacDonald suggests that he might have had assistance from others, including his brother, Zachary.<sup>4</sup> From this work, the Dutch firm of W. & J. Blaeu were to produce the county and regional maps which appear in the first atlas of Scotland published in 1654. The complicated history of the manuscripts, their editing by Robert Gordon of Straloch and his son, James Gordon of Rothiemay, both cartographers in their own right, and the eventual publication of the atlas has been much researched in recent years.<sup>5</sup> It now seems likely that the Gordons' editing was relatively minor in areas outside the north-east of Scotland. Thirty-eight sheets of Pont's drafts have survived in manuscript form. These comprise seventy-eight distinct maps of much of Scotland and are now assumed to depict the landscape at the end of the sixteenth century. Frequently, the draft sheets provide more detailed information than Blaeu's printed maps. The neighbouring manuscript to the Renfrew sheet (Pont no.34), covering Glasgow and Lanarkshire, bears an inscription 'Sept et Octob: 1596 Descripta' and, given its state as a later draft, it is thought that Pont's surveying may have been completed before this date.<sup>6</sup> It has been suggested that Pont may have surveyed the county in the period between the summer of 1585 and the spring of 1586, based on depicted features and the complex feudal rivalries of the period.<sup>7</sup> Certainly, the map covering Renfrewshire is as neat in its illustration of settlement pattern and is one of the most informative of Pont's maps. No fewer than 726 places are named. In addition to several carefully sketched representations of houses and castles (e.g. Krukston, Midletoun, Houston, Ihonstoun), there is a particularly valuable depiction of both Paisley and the Abbey precincts. Many churches are also marked and identified by crosses. It is, however, the mapping of the high density of rural fermtouns throughout the county which is the most impressive feature of the map. Rivers are clearly delineated and many bridges shown.

The manuscript is made up of an irregularly cut sheet pasted on to another bearing a unique bold title at its head. An irregular margin follows the watershed boundary with Ayrshire in the south-west but cuts straight across the sheet towards the east. The present map appears to be the result of the cutting into a larger original draft, with some parts of the Clyde shore, between Bishopton and Inverkip, also being trimmed. Possibly as a result of this trimming, the location of features in the north-west suffers marked distortion (e.g. Ardgowan lies west of Kartburn) and the coastline appears very much as a horizontal line. A further incision, after the two sheets were joined, is suggested by the truncation of a linear scale, probably prepared by Robert Gordon, in the south-east corner.

As Stone states, 'despite the high density of names, the writing is rarely difficult to read'<sup>8</sup> and comparisons with the relevant Gordon manuscript and the printed Blaeu map show Gordon did little to alter the original depiction. Blaeu, in the preamble to his atlas, notes that he had to put the Pont manuscripts he received from Sir John Scot into order 'and sometimes divided a single map...into several parts'.<sup>9</sup> The irregular boundary may have been cut in Amsterdam before the sheet was returned to Scotland when Gordon prepared an intermediary, final draft. From the position of the Renfrewshire map in the atlas and surviving Blaeu letters, it is supposed that Gordon sent his finished version to Holland some time before 1642.

<b>c1640</b>	<b>GORDON, Robert</b>
	Barony of Ranfrew.  Size: 375 x 560 mm. Scale: [[c1: 87120] or c1": 1.375 miles].  NLS Adv. MS.70.2.10 (Gordon Manuscript no. 55)*

This is a larger but emptier map, with less than 200 names located in the area corresponding to the Pont manuscript. All are shown on that earlier map and Gordon's work appears to be entirely derivative, with no evidence of any new information introduced. The Clyde shoreline is very similar to that of Pont and this would seem to be a draft copy prepared for the Blaeu atlas. It gives a particularly clear and detailed impression of the drainage pattern, especially the tributaries of both Cart Waters. In

addition, the Renfrewshire Heights are more easily identifiable. Settlement depiction is concentrated around the lower reaches of both Cart Waters, little being indicated in the hinterland. At one time, it was thought that Gordon and his son, James, an important map-maker in his own right, had greatly edited Pont's work before sending it to the Amsterdam printers. This manuscript is one of several which challenge that assumption.

<b>1654</b>	<b>BLAEU, Joan</b>
	<p>PRAEFECTURA/ RENFROANA/ Vulgo dicta/ BARONIA/ THE BARONIE OF/ RENFROW/ Timotheus Pont/ Auctor.</p> <p>Size: 390 x 535 mm. Scala Miliarium 5 [=91 mm.] Scale: [1: 105600] or 1": 1.67 miles.</p> <p>In: BLAEU, Joan <i>Theatrum Orbis Terrarum, sive Atlas Novus</i> Pars Quinta. Amsterdam, 1654.</p> <p>GUL; MLG; NLS*. PCL has a copy of the single sheet of Renfrewshire.</p>

The publication of the Blaeu atlas *Theatrum Orbis Terrarum* stands as a landmark in the history of printing. Volume five of the work has forty six maps of Scottish regions based largely on Pont's surveys. Many of these printed maps may reflect a landscape at least sixty years earlier, with little additional editing by the Gordons. Comparison with the Pont manuscript of Renfrew shows a very close connection between the two, with Blaeu copying all but four place names from Pont. The printed map, however, is less extensive in its portrayal of the rural landscape, having only 656 places named in the area common to both. Although the printed map is at a larger scale, increasing the available space for depiction, the density of names on the original survey may have created a problem for the engravers. Care should be taken in using the map since some place names have been incorrectly transcribed (e.g. Oldton on Pont became Ydtoci).

A prominent pecked line representing the county boundary follows a similar alignment to the cut edge of the Pont manuscript. One feature on the sheet, unusual for the Blaeu maps, is a road linking Glasgow and Paisley which appears on neither the Pont nor Gordon manuscripts. This addition strengthens the supposition that Gordon prepared a later draft for Holland. The engravers outlined a blank cartouche in the upper right corner and a blank shield for a coat-of-arms above the title in the expectation of a dedication which never appeared. A shepherd and shepherdess flank the title, while cherubs, one bearing a set of dividers, adorn the scale bar. The incorrect alignment of the coastline and the boundary in the north-west are also notable features of this depiction.

A second Latin text edition of the atlas, *Geographiae Blavianae*, volume 6, appeared in 1662 with the same map of Renfrew. Editions in Dutch, French and German were also published in 1654. A Spanish version appeared in 1659 (possibly) and was re-issued in 1662. Subsequent re-issues in Dutch, in 1664, and French, in 1663 and 1667, are recorded. In 1891, R.S. Shearer reprinted eight of Blaeu's Scottish maps, including one entitled 'Baronie of Renfrow'. The French 1663 re-issue was published in facsimile in 1967-8 by Theatrum Orbis Terrarum, while facsimiles of the British maps from the first edition were published in 1970 by Thames and Hudson. Slightly smaller versions of the Scottish maps in full colour can be found in Jeffrey Stone's *Illustrated Maps of Scotland from Blaeu's Atlas Novus of the 17th Century*, 1991. A further reproduction of the atlas with an English translation of the accompanying text was published in 2006 by Birlinn.

[1725]	<b>MOLL, Herman</b>
	<p>The Shire of/ RENFREW. with/ CUNINGHAM The/ North Part of ye Shire of Air./ By H. Moll Geographer.</p> <p>Size: 200 x 260 mm. British Miles 7 [=46 mm.] Scale: [1: 237600] or 1": 3.75 miles.</p> <p>In: <i>A Set of Thirty Six New and Correct Maps of Scotland Divided into its Shires, &amp;c.</i> London, n.d. Map 15.</p> <p>BL; MLG; NLS. 2nd ed. at GUL; NLS*</p>

Recent research<sup>10</sup> has suggested that this small, portable volume was published as a companion to Moll's successful atlas of England and Wales produced in 1724. Initially sold for 8 shillings, it was the first British work to cover the whole of Scotland and contains 34 district or county maps. Each map has a plate number engraved both top left and right. Moll acknowledges his reliance on the earlier work of Pont, Gordon and John Adair in his introduction but a close inspection of the maps shows them to be poor reductions of those in the Blaeu atlas. In particular, the lower standard of engraving and the likelihood that Moll did not visit the areas has led to much omission and confusion of detail, particularly with place names. Furthermore, the additional information of local gentry referred to in his introduction appears to be very limited and may relate solely to the selection of names

In all, 119 names are found on the area covering the county, with settlements, rivers, bridges, castles and moors being identified. All these names are taken from the Blaeu depiction and examples of the close similarity can be seen in the identification of 'Kilmakobam' and 'Kar'. One clear error of transcription is the removal of Carswel from north of Long Loch to the shores of Loch Libo. In addition, Moll has marked the line of a route from Glasgow to Ayr accompanied by the figure 16. Hills are marked as isolated knolls and Kilbirnie Loch stays with the east-west orientation given in the Blaeu atlas.

Overall, the county seems to have been rotated in an easterly direction and its length reduced. The boundary is shown in a general fashion and, apart from the fenced policies of some large houses, there is little differentiation of settlement. Both distance and position are highly variable while the scale cannot be regarded with any accuracy. A plain boxed title lies in the north-east, above the scale bar.

A second edition, titled *Scotland Delineated; Or Thirty Six New and correct Maps of North Britain*, was published in 1745, probably to exploit increased interest in Scotland as a consequence of the Jacobite uprising. The work is a re-issue with a new and dated title page and no alteration to the individual maps. A further edition, in which the maps have been revised, appears to have been published post 1747<sup>11</sup> with, in the case of Renfrewshire, only two place names added (Scotstown, L. Mary's I.) and two revised (G. Kumbra I., South Annan). In 1896, R.S. Shearer & Son, of Stirling, published a facsimile of the first edition of 1725 and, in 1980, Heritage Press produced a reproduction of the same atlas with the maps slightly larger in size.

[1748]	<b>KITCHIN, Thomas</b>
	<p>A Map of/ RENFREW/ SHIRE,/ By T. Kitchin.</p> <p>Size: 145 x 165 mm. English Miles 8 [=42 mm.] Scale: [1: 300960] or 1": 4.75 miles.  'Longd. W. from Edinb.'</p> <p>In: <i>Geographia Scotiae: being new and correct maps of all the counties and islands in the Kingdom of Scotland</i>. London, 1749. Map 23.</p> <p>BL; MLG; NLS. 2nd ed. at GUL; NLS</p>

Despite the title page date, this atlas was published either in early November 1748, or slightly earlier, and forms part two of *Geographia Magnae Britanniae*, as advertised in the contemporary press.<sup>12</sup> Each part could be purchased separately, with each book having its own title page. Given its convenient size, the volume may have been designed for the traveller. Individual maps have an engraved plate number outside the upper border and the majority have longitudes based on the meridian of Edinburgh.

Kitchin was a prolific London engraver and publisher of maps and charts but it is doubtful that the atlas maps are based on a new survey. The 'best authorities' of some of the map titles appear to be John Elphinstone's 1745 map of Scotland, judging by the similarity of place names indicated (e.g. Aragowan, Green). Furthermore, Kitchin had been responsible for the engraving of the Elphinstone map. Renfrewshire's depiction is, however, no direct copy, for there are sixteen names on this map which do not appear on the Elphinstone sheet while Elphinstone has two locations not identified by Kitchin. In comparison, the two maps have similarities in their delineation of the coastline, county boundary and road network but the atlas depiction provides more detail of hills.

Again, a reduced size and scale has resulted in a limited and faulty representation (e.g. Killellan is sited south-west of Houston and south of the Gryfe). Hills, more noticeable here than on the Elphinstone sheet, are placed across the map with little resemblance to reality and there are some unusual corruptions of place-names (e.g. Gouran). Only 46 features are identified and there are marked distortions in location (e.g. along the Clyde coast). In addition, there seems to be no differentiation in showing settlement (e.g. Eaglesham is marked similarly to Paisley). A single road is shown, running south from Glasgow through Arthurly while the county boundary is only roughly indicated. Loch Winnoch is the one body of water which is mapped.

The title lies on a decorative pedestal flanked by an ornate balustrade in the south-east corner, while a compass point is placed in the north-east sector. A scale bar is marked in the south-east. A second edition was published in 1756 with no alterations to the maps.

<b>1754</b>	<b>ROSS, Charles</b>
	A/ MAP/ of the COUNTY/ OF/ RENFREW/ From an actual Survey/ taken by Charles Ross/ SURVEYOR/ 1754  Size: 485 x 660 mm. A Scale of Scots Miles 5 [=115 mm.]; A Scale of English Miles 5 [=107 mm.] Scale: [1: 71280] or 1": 1.125 miles.  Bodleian Library, Oxford. Gough Maps, Scotland 29.

Ross was a local surveyor, probably related to the Rosses of Hawkhead and in practice since 1744. His style is considered unskilled, suggesting he may have been self-taught, but his surviving plans cover many parts of the country. He established a nursery at Greenlaw and drew plans for several of the local gentry. It is possible that family and masonic connections enabled him to pursue his long career. Despite his limitations, this rare map gives a clear depiction of the county in greater detail than Kitchin or Armstrong. It is one of the earliest separately published county maps of Scotland and displays an increased refinement in the use of lettering (burghs) and symbols (kirks).

Regardless of scale and his familiarity with the area, Ross names only 270 features, covering settlements, bridges, moors, mills, lochs and woods. In particular, the western and upland areas are relatively empty. Unlike other maps by him, this has no inset plan of the county town but, despite this, the layout of the burghs is correct. Roads are shown and many physical features identified, including an attention to hill names and the mapping of mosses. Country houses are shown by small sketches. Distances tend to be underestimated and there are some noticeable errors in location but the marking of many major sites is quite accurate.

The surrounding margins are decorated by elevations of several important country houses, namely Castle Semple, Millikinhall, Renfield, Newtown, Hawkhead, Finlastoun, Pollok, Cruickston Castle (in ruins) and Over-Pollok. Both title and dedication, to William, 13th Earl of Glencairn, are placed centrally top and bottom and are enclosed in floral, scalloped designs. An ornate compass with a west variation of 17° 30' is positioned at the mouth of the Gare Loch. The topographer, Richard Gough records another edition of this map in 1774 but this has not been traced.<sup>13</sup>

<b>c1758</b>	<b>WATT, James (junior)</b>
	Untitled manuscript map of Renfrewshire.  Size: 575 x 680 mm. Scale: [[c1: 79200] or c1": 1.25 miles].  Birmingham Central Library. Boulton & Watt Collection, Muirhead Box III/5/5.

Little is yet known of the life and career of John Watt, senior, but recent discoveries of his working papers suggest that he was an important figure in surveying in the west of Scotland in the 1720s and 1730s. Apart from his work as a teacher of practical mathematics, including navigation, he was employed as a surveyor by Glasgow Town Council and several local landowners. The survival of this document is of great importance for it has been suggested that it forms the basis for the printed map *The River of Clyde Surveyed by John Watt*, published by his family in 1759. As the printed chart marks Inchinnan bridge, built in the year of publication, while the draft still indicates a ferry, a dating of circa 1758 is given.

John Watt, senior, died in 1734 and most of his survey work relates to estate or town mapping. Although he did take bearings and measures of the River Clyde, there is no surviving document which indicates his recording of marine features such as the shoals or soundings which appear on the manuscript's depiction of the main channel of the river. Writing in 1794, James Watt, the engineer, stated that 'The survey as far as the Point of Toward, was done by my uncle before I was born; the remainder was added by my father and my brother, but is not over accurate'.<sup>14</sup> This map indicates the whole of the mouth of the Clyde, including the Cumbræ and Bute, and names several places on the northern shore but the main focus of attention is the depiction of the Watts' home county. The lettering style is not that of John Watt, senior, and it is possible that it is the work of several people. Much is in a hand similar to that on other charts which may have been drawn by James or John Watt, junior, the engineer's father and younger brother respectively.

Features identified include hills, woods, mosses, churches and castles, while some attempt is made to differentiate settlements by marking the street plans of villages and towns. The line of 'True meridian' is marked, with a magnetic variation of 2 points west recorded, while three scale bars of differing gradation are given. John Watt worked in Lanarkshire and Renfrewshire and, apart from his survey of Inchinnan, is known to have surveyed the lands around Castle Semple and Lochwinnoch in May 1733.<sup>15</sup> Surprisingly, only 190 places within or near Renfrew shire are named. Of these, all but 24 appear on the Ross county map. More significantly, routes are shown by pecked lines and roads marked by a double line, as they are delineated on Ross. However, a group of eight names unique to the manuscript suggests an additional source for some features. Noticeable differences occur in certain place names between the two depictions. Where Ross identifies Neilstoun, Newark, Hawkhead and Ralstoun Wood, the draft map has the less familiar Newton, Newport, Hacket and Erlston Wood. This brings into question the authorship of parts of the sheet since the family connection with the county presumably should have prevented such striking variants. Overall, a good impression is given of the topography and drainage. While this map's illustration of hills is an improvement on Ross, the pattern of river tributaries, although accurate, omits Loch Libo.

Clearly, this was a working draft with examples of names being corrected, others inserted upside down in some sectors and a grid drawn over the Paisley area, possibly to aid subsequent copying. It poses many questions about its construction, not least the omission of the lighthouse on the Little Cumbræ, erected in 1754-5 and included on the printed map of the Clyde.

<b>c1770</b>	<b>ANONYMOUS</b>
	<p>A MAP/ of the/ SHIRE/ of/ RENFREW</p> <p>Size: 155 x 198 mm. British Statute Miles 5 [=39 mm.]; Scotch Miles 5 [=48 mm.] Scale: [c1: 190080] or c1": 3 miles.</p> <p>In an anonymous manuscript county atlas of Scotland. Map 26.</p> <p>NLS Manuscript no.9374.</p>

The NLS map catalogue gives this volume a tentative dating of circa 1770, possibly reflecting a passing resemblance to Armstrong's *Scotch Atlas*, but a more detailed comparison of the two atlases shows significant differences in depiction and selection of place names. In Armstrong's work, Orkney and Shetland appear on the same sheet but the two counties are on separate leaves of the manuscript. Fife and Kinross are similarly treated. Unfortunately, little is known of the provenance of this work other than that it was purchased at auction in 1969. The individual maps of the volume are outlined in colour with decorative cartouches in pen and wash. They include depictions of estates and the sites of certain battles. When the Renfrewshire map is considered, it is apparent that the author has not copied other county depictions, leading to a belief that the complete volume may have been prepared by

copying the details of individual counties from a map of the whole of Scotland. Certainly, there are sufficient similarities in the style and choice of names to suggest the author based this depiction on James Dorret's *A General Map of Scotland and Islands* published in 1750 or a close copy of it. The watermark of the atlas paper was in use from about 1762.

Seventy-three features are named on the Renfrewshire map but errors of transcription (e.g. Tillmalcon, Elgersly, Tergusty) suggest unfamiliarity with the county. These inconsistencies are repeated in other maps in the work. All the names appear on Dorret's map and the similarity continues in the marking of Greenock and Port Glasgow in plan form while Paisley is identified only by symbol. However, unlike Dorret, the author has marked a small number of roads, none of which run through Paisley. Errors in location of settlements and distortions in delineation of rivers also occur. This inaccuracy is extended to the boundaries and shape of the county, wherein both length and breadth are foreshortened, and the overall shape appear as a curve. The depiction of upland areas is selective (e.g. hill symbols are marked north of Scotstoun but nothing is shown of the Renfrewshire Heights).

The map is numbered '26' in the top right corner and the title, scale bars and a north point are situated in the south-west, the title cartouche being in the design of a church building with a coastal setting. An index at the front of the work also provides a key to the symbols used.

<b>1774</b>	<b>WILLIAMSON, David</b>
	A MAP/ of the/ SHIRE/ of/ RENFREW
	Size: 156 x 197 mm. British Statute Miles 5 [=50 mm.]; Scotch Miles 5 [=63 mm.] Scale: [c1: 190080] or c1": 3 miles.
	In: <i>A New and Correct Caledonian Atlas containing a general map of the Kingdom of Scotland...</i> 1774. Manuscript. Map 26.
	Private collection

This map and atlas are very closely related to the previous entry, with a similar layout, style of coloured outline for the counties and sketch cartouches in pen and wash. In this case, however, the title page provides an author and date for the creation of what may have been a school exercise in creating an atlas from a map of the whole country. Once again, it would appear that James Dorret's *A General Map of Scotland and Islands* of 1750 (or a close copy of it) was used as the base for the delineation, given the close similarities in orthography and choice of names.

Despite this being a separate production, seventy-three features are again named, with similar or other errors of transcription (e.g. Elgersly, Stainty), but all also appearing on the Dorret map. Significant similarities of selected features on this map include Ectertoun (in the very north-west), Macarnock, the block design of the policies of Greenock House and the layout plan of Greenock and Port Glasgow. Two roads within the county are also marked in this version and errors in the location of settlements and the delineation of rivers are, again, discernible (e.g. the location of Inchman (Inchinnan) to the west of Erskine). The county boundary and shape remain quite generalised, with a foreshortening of both length and breadth, while the selective depiction of upland areas continues with the hill symbols north of Scotstoun compared with the omission of the Renfrewshire Heights. Differences from the previous entry include the omission of the road from Renfrew to Govan, a slightly less ornate depiction of Renfrew, a more generalised depiction of the county's lochs, the omission of Barochan and Auchindarroch and the inclusion of Fulwood and Milbank. A comparison of the two maps suggests this to be more imprecise in terms of depiction of both physical and human landscape features.

Again, the map is numbered '26' in the top right corner, while the title cartouche, placed in the south-west, is in the design of a building but, on this occasion, a small factory with a smoking chimney. An exactly similar ornate compass, indicating eight cardinal points, lies above the title.

<b>1777</b>	<b>ARMSTRONG, Mostyn John</b>
	COUNTY/ of/ Renfrew.
	Size: 190 x 142 mm. Scale of Miles 5 [=26 mm.] Scale: [1: 316800] or 1": 5 miles.
	'Publish'd as the Act directs by Robt. Sayer & Jno. Bennett 1st. Novr. 1777.'
	In: <i>A Scotch Atlas; or description of the kingdom of Scotland: divided into counties.</i> London: Printed for Robt. Sayer and John Bennett, 1777. Map 12.
	GUL; MLG; NLS. 2nd & 3rd eds. at NLS

Mostyn Armstrong had worked with his father, Andrew, on county surveys of Northumberland, Berwick, the Lothians and Ayr between 1769 and 1775. In 1775, he produced his first independent work, a map of Peebles-shire, before settling in Norwich the following year. From there, he published a variety of road maps, town plans and his *Scotch Atlas*. Much of his work was severely criticised by contemporaries or later cartographers, including John Thomson. In particular, the English antiquary, Richard Gough was very disparaging about the atlas; 'Armstrong's 'Scots Atlas' is little valued: his pretension to actual survey is entirely chimerical: he copied others, ingrafting mistakes of his own...Armstrong has attended to his own and the engraver's profit more than that of the public or their information'.<sup>16</sup>

One recent authority<sup>17</sup> recognises the 1750 Dorret map of Scotland as the source for the atlas maps but a careful comparison suggests that Armstrong may have added information gathered when on his survey of Ayrshire. Certainly, this map has more hill symbols and a different boundary line in the west. The drainage pattern, particularly the depiction of lochs in the south of the county, is also dissimilar. Additional place names include Tofts and Barradger while others show different spellings (e.g. Doughall in place of Dorret's Duchal, Horserigs not Horscra). Although the atlas maps are neatly engraved, by H. Ashby, who had worked for Thomas Jefferys, their size makes for a limited depiction. Only 96 places are named but their spelling is far closer to modern orthography. One apparent confusion seems to be the indication of both Erskine and its proprietor, Blantyre. Major routes are marked, stressing the pattern radiating from Glasgow while hills are shown by relief drawing. Distances according to the scale seem to be overestimated and orientation is again variable. Map decoration is simple, with the title placed bottom left, scale bar bottom right and north point top right.

Despite its limitations, the volume was popular enough to warrant re-publication in 1787 and 1794, possibly filling a niche as a handy reference work for travellers at a time when Scotland was beginning to be re-discovered. In fact, no other atlas of Scotland was to be produced until that of Thomas Brown in about 1807. On the facing page is a brief description of the county. The re-publication in 1787 has the imprint of Robert Sayer on the title page, while the 1794 issue was published by Laurie and Whittle. In both cases, the Renfrewshire map was similar to the original with the sole exception that, in 1794, the publication detail below the map has been removed.

<b>1778</b>	<b>KITCHIN, Thomas and BARBER, J.</b>
	<p>RENFREW/ SHIRE,/ from the latest/ AUTHORITIES./by T. Kitchin &amp; J. Barber/ Geogrs.</p> <p>Size: 180 x 230 mm. Statute Miles 9 [=56 mm.] Scale: [1: 253440] or 1": 4 miles. 'London Mage.'</p> <p>In: <i>The London Magazine: or Gentlemans Monthly Intelligencer</i>, vol.47, July 1778. opp. p.320.</p> <p>NLS</p>

In the final three issues of the *London Magazine* for 1763, individual maps of the Lothians engraved by Thomas Kitchin were printed to accompany brief county descriptions. Over the next eighteen years, the whole of Scotland was covered, concluding with a map of the Western Isles in September 1781.

This map is a slightly larger and clearer illustration than Kitchin's earlier work of 1748, being based on the 1750 map of Scotland by James Dorret, with 88 places, mostly settlements, identified. Again, there is a rather random mapping of the upland areas with un-named hill sketches dotted across the map. Few rivers are named but the drainage pattern is shown in some detail. Despite the increase in size and scale, no roads are shown and there is no attempt to mark woodlands or policies, as is the case with other Kitchin depictions. An irregular line gives only a general impression of the county boundary and many spelling errors (e.g. Hinoch L., Prskine) or corruptions (e.g. Kellyback) are still noticeable. The overall impression is of a rather squashed and square shape to the county. Location and distances remain inaccurate, with a tendency to underestimate longer measurements.

The title, shown on a rock with fishing nets in the foreground, is located in the south-west, while a compass is in the south-east. Grid lines, broken to avoid confusion with place names, cross the map and longitudes west from both Edinburgh and London are indicated. The accompanying description of the county notes, 'The nobility and gentry of this shire...are observed to intermarry with their own little society in such a manner as to form a succession of regular affinities'.

<b>1800</b>	<b>AINSLIE, John</b>
	<p>MAP/ of the/ COUNTY/ of/ RENFREW/ Surveyed by JOHN AINSLIE in 1796/ Published as the act directs June 20th, 1800. and sold by Mrs. Ainslie/ Hanover Street Edinr, Messrs. Richardson &amp; Co. Glasgow, and Mr. William/ Faden Geographer to the King Charing Cross London.</p> <p>Size: 4 sheets, each of 580 x 720 mm, forming a map, 1160 x 1440 mm. Scale of English Miles 5 [=250 mm.] Scale: [1: 31680] or 1": 0.5 mile.</p> <p>GUL*; NAS; NLS*. 2nd ed. at GCA; MLG</p>

John Ainslie was, without doubt, the outstanding Scottish cartographer of his generation, producing a vast range of town plans, estate surveys and county and national maps and charts in a very prolific career. In 1789, he published a map of Scotland, based on a series of angles and observations, which

greatly improved the depiction of the Great Glen and corrected many inaccuracies in the coastline. In 1796, he also surveyed the Stewartry of Kirkcudbright, the resultant county map being published the following year. In 1812, he produced a comprehensive treatise on land surveying based on his practical experience.

This superbly detailed map, not published until the summer of 1800, gives a comprehensive picture of the county's roads, tolls, woodlands, plantations and policies (e.g. Hawkhead, Castle Semple), mosses, settlements, industries and drainage pattern, which stands comparison with the later work of the Ordnance Survey. Attention has been paid to the shading and naming of hills, while a sophisticated use of lettering size and style identifies different features. The seats of local gentry are shown by sketches and many houses also carry the names of the proprietors (e.g. Bishopton, Gillespie Esqr; Newark Castle, Lord Belhaven). For the first time, parishes are marked and the map is strong in illustrating both the rural and urban manufacturing communities (e.g. in Houston, 118 places are identified, including mills and bleach-fields). Care in the showing of undrained areas, the local road network and the spread of settlement makes the map an invaluable tool in any research on the period. For its scale, it gives a good idea of the shape of several larger towns, including Glasgow. Ainslie also marks the jetties constructed to increase the River Clyde's flow.

The map also carries tables of parish populations, sizes and acreages, and distances to 91 identified places. Following the practice of the day, Ainslie sought subscriptions to his work from resident businessmen and gentry. In this case, 116 local subscribers were forthcoming, including the Town of Paisley and George Langlands, another land surveyor, guaranteeing a pre-publication income of 270 guineas. The map title is located in the north-east corner in a standard style placed on a foliated rock with two cotton factories in the background and agricultural implements lying at its foot. Below this is placed a dedication, in flowing lettering, to William Macdowal, Lord Lieutenant of the County, who had subscribed 10 guineas. Two scale bars are marked and the Glasgow meridian is given as 4° 14' west of Greenwich. The longitudinal margin marks the distance in miles from Glasgow Cross, while the latitudinal scale is given in degrees, minutes and seconds.

A second edition of the map was published in London by Faden, now described as Geographer to the King and the Prince of Wales, on January 1st 1801. This map has no imprint details at the margins.

<b>[1807]</b>	<b>BROWN, Thomas (Publisher)</b>
	<p>New and/ Accurate Map/ of/ RENFREW SHIRE/ From the Latest/ SURVEYS/ Published by T. Brown Edinr./ T. Clerk Sculpt.</p> <p>Size: 270 x 310 mm. Plate size: 305 x 350 mm. Scale of English Miles 10 [=116 mm.] Scale: [1: 131820] or 1": 2.08 miles.</p> <p>In: <i>Atlas of Scotland: being a new set of county maps from actual surveys...</i> Edinburgh: Thomas Brown, n.d. Map 12.</p> <p>GUL; NLS</p>

In 1802, Thomas Brown began to issue his set of county maps with the intention of publishing one every two months until the work was complete. The maps were to be available at 4/- for coloured outlines or 5/- for a fully coloured sheet. Despite this scheme, the maps were not completely ready until 1807. Brown had previously produced a plan of Edinburgh in 1793 and was responsible for publishing Ainslie's road map of Scotland four years later.

As an atlas map, this depiction is a marked improvement on Armstrong and other eighteenth century works but does make the county appear rather foreshortened east to west. Both the road and drainage

pattern are delineated in some detail and most settlements are mapped. Mosses are identified and certain upland areas are marked by a mixture of hill sketching and hachuring but this tends to show only isolated mounds. There is some sign of locational error in the remoter upland sectors. In addition, there are examples of mistakes with, or unusual corruptions of, place names (e.g. Parkleg, Watkinshaw Moss, Stoboros,) and the Black Cart is named as Barnsford Burn near Inchinnan - an incorrect copying of Barnsford bridge. Several minor roads appear to have been drawn in with little attention to their routes (e.g. east of Kilmacolm). Brown's selection of place names bears a strong similarity to Ainslie (e.g. Smisston, Egypt) and it is possible that this is a reduced version of the county survey. A line which presumably identifies the Paisley and Ardrossan Canal seems to be confused with the Clyde east of Glasgow and continues to the edge of the sheet.

Whereas different states have been found in some of the county maps in copies of this atlas (e.g. East Lothian),<sup>18</sup> no alternative to this map has been discovered. However, the maps from this atlas were still being advertised as *Brown and Gavin's Counties*, at prices ranging from two shillings, on maps published by John Lothian as late as 1835.

The title is placed in an oval plaque within a double lined border which lies at the bottom left above the scale bar. An eight point direction arrow lies top right. Other maps in the atlas were engraved by Gavin & Son. According to the publicity, the complete work would cost £1.11.0d for coloured outlines and £1.14.0d completely coloured.

<b>1808</b>	<b>THOMSON, John (Publisher)</b>
	<p>RENFREW</p> <p>Size: 90 x 163 mm. Scale: [[c1: 253440] or c1": 4 miles].</p> <p>In: <i>The Traveller's Guide Through Scotland, and it's islands</i>          Edinburgh: Printed for J. Thomson. 4th ed. 1808. opp. p.256.</p> <p>Various editions in several libraries.</p>

This guide was first issued in 1798, printed for J. Fairbairn, with only a general travelling map of Scotland engraved by J. Menzies. By 1805, the work had been taken over by John Thomson and a second edition was published containing twelve maps. These were added to in later editions, the map of Renfrew first appearing in the fourth edition.

The size of the map limits the amount of detail which can be shown. Only a general impression is given of the county's drainage system, in addition to 45 places identified. Major roads are delineated, including a new road between Inchinnan and Bishopton, but routes from Port Glasgow to Beith and through Drums appear marked in a quite arbitrary fashion. Like other maps in the guide, there are some noticeable errors in location (e.g. Drums, Bishopton) and distance, particularly north of the Gryfe. The Clyde coastline is wrongly delineated as trending too much east-west and both Gourock and Greenock are not sited at the coast. Some unusual name corruptions (e.g. Otteenside Loch for Queenside Loch) also reduce the map's value. With the sixth edition (1814), hill shading and the identification of mosses were introduced, which has tended to obliterate the lettering of place names. The clarity of some locational sketches (e.g. S. Barr, Cardonald) is also beginning to fade by this date. However, the guide-book itself was clearly popular in a period of growing tourism and interest in Scotland. No other alterations were made to the map and the last edition of the guide, the ninth, was published in 1830.

<b>1812</b>	<b>AINSLIE, John</b>
	<p>MAP/ made out for/ JOHN WILSON/ ESQRS./ Agricultural Report of the/ COUNTY OF RENFREW/ by John Ainslie/ 1810</p> <p>Size: 200 x 430 mm. Scale of English Miles 8 [=100 mm.] Scale: [1: 126720] or 1": 2 miles.</p> <p>In: WILSON, John <i>General View of the Agriculture of Renfrewshire...</i> Paisley: Printed by Stephen Young, 1812.</p> <p>GUL; MLG; NLS; PCL</p>

Although this map does not carry the detail of Ainslie's earlier survey, it provides a clear illustration of the county's relief and drainage pattern, with many tributaries identified. A dozen hills are named and many of the county's several mosses are marked. Major roads are shown, as is the line of the Ardrossan Canal. However, only 162 place-names appear and some areas, particularly the uplands, look quite empty. Towns and most villages are marked in plan form, although, contrary to near contemporary maps (e.g. Lizars, 1818), Killellan is as large as Houston. With improvement evidently in mind, cotton mills, coal and other works are identified. Harbour quays are included and the Cart is noted as navigable to Paisley. The county is divided into three soil areas - high district, over 80,770 acres, on rotten rock, middle on clay and gravel, and flat on loam and clay. A small key is to the left of the title (bottom left) while the reference to soils lies below the north point (top right), which indicates north as 25° west of the top of the page. The margins are divided into minutes of latitude and longitude, the horizontal margin further marked as longitude west of both Greenwich and Glasgow. In 1992, the book and map were reprinted by Renfrew District Libraries.

<b>1818</b>	<b>LIZARS, William &amp; Daniel (engravers)</b>
	<p>MAP/ OF/ RENFREWSHIRE./ Engraved by W. &amp; D. Lizars.</p> <p>Size: 365 x 480 mm. Scale of English Miles 4 [=65 mm.] Plate size: 400 x 510 mm. Scale: [1: 101376] or 1": 1.6 miles.</p> <p>In: CRAWFURD, George <i>A General Description of the Shire of Renfrew ... continued to the present period, by George Robertson.</i> Paisley: Printed by J. Neilson, 1818.</p> <p>GUL; MLG; NLS; PCL</p>

In the preface to this book, Robertson lists Ainslie's map as one of his authorities for additional matter, supported by his own experience and discussions with different proprietors, parish ministers and 'the active friendship of intelligent individuals'. This map, however, does appear to be merely a reduction of the Ainslie survey, with many fewer place names and features identified (e.g. in Inchinnan parish, only 26 place names are given in comparison to Ainslie's 47; in Erskine, 44 places are identified whereas Ainslie marks 105). Several corruptions or mistakes in the engraver's copying are noticeable (e.g. Garvock (Inverkip) becomes Caryock, Dowries (Greenock) is mistaken for Darnems and becomes Durnams, Aughmugton (Greenock) is changed to Auchenupton). The sketching of policies and the detailing of hills and tributaries is noticeably reduced.

More significantly, the names of the 33 proprietors of sizeable country houses which appear on this Lizars engraving match those of Ainslie, surveyed twenty-two years previously, in all but one case. The exception, Mains in Eastwood, has 'Green Esqr.' marked, which appears to be an incorrect copying of Ainslie's 'Given'. This is confirmed in the text of the book (p.277) as Mr. Govan. However, when the properties are checked against the text, two had changed hands (i.e. Broadfield (Kilmacolm), described as belonging to Mr. Crawford (p.397) and not Mollison as on the map, and Gleddoch (Erskine) owned by James King (p.389, 395) and not Lady Semple). It would seem as if the map was produced without great reference to the updating of the book.

At least one new road, that from Gourock west via Cloch Point to Inverkip, is delineated, as is the line of the Ardrossan Canal, although this is un-named. The only other additions introduced by the engravers would seem to be a number of minor routeways depicted by pecked lines (e.g. from Laigh Hatton (Erskine) running south to Bridge of Weir thence south-west). These lines bear no relation to any known route and could equally be incorrect parish boundaries not erased, since they often fail to link up with other routes. In general, the quality of engraving is inferior to the Ainslie map.

Ainslie's note on the magnetic variation north of Lochwinnoch is copied, as is the choice of a meridian through Glasgow. The title, north point and scale bar are placed in the south-west corner while another sixteen point directional arrow lies in the north-east.

<b>1826</b>	<b>THOMSON, John</b>
	<p>RENFREW-SHIRE.</p> <p>Size: 495 x 655 mm. Plate size: 555 x 680 mm. Scale: [1: 73920] or 1": 1.167 miles. English Miles 6 [=131 mm.] 'Published by John Thomson, Edinburgh 1826'. 'Eng. by E. Butterworth. Edinr.'</p> <p>In: <i>The Atlas of Scotland, containing maps of each county...</i>Edinburgh: Printed for John Thomson, 1832. Map 12.</p> <p>GUL; MLG; NLS*; PCL</p>

Thomson first issued a prospectus for his scheme to produce an atlas of Scotland in 1818 and the work of engraving the maps was spread over the following twelve years. Loose sheets were sold when ready but, before completion, the scale of this publication forced Thomson into bankruptcy. Despite this, it was decided to finish the work and copies of the atlas with a title page dated 1831 for the trustee of the creditors were produced. The following year saw the volume, complete with index, published under Thomson's name. The atlas was another landmark in the history of Scots cartography and provides coverage of the whole country, by county, at comparable scales. In most cases, existing county maps were used as the basis and Renfrewshire was no exception, this depiction being based on Ainslie's survey. However, this is a marked improvement on the Lizars version of 1818 in both content and quality. In this instance, Inchinnan has 44 place names and Erskine 98. Names, such as Garvock, Dowries and Darnems, have been copied correctly and there is greater detail in the mapping of policies (e.g. Castle Semple, Hawkhead), hills (e.g. in Erskine parish) and tributaries (e.g. in Eaglesham). Longitude is given west of Greenwich and the note on compass variation is shown. Unlike the Lizars map, no proprietors are named.

Additions to the original can, again, be discerned. The proposed line of the Ardrossan Canal or Rail Road is now named and there is a note on Castle Semple Loch that it is drained but floods in winter. More significant is the identification of the Shaws Water reservoir and lead into Greenock, the new inland road from Largs to Greenock running to the east of this reservoir and the addition of names at the coast (e.g. Kempock Point, McInroys Pt., the lighthouse at Port Glasgow). While there is no

alteration in the plans of Glasgow or Paisley, Greenock is extended to the south-west and there is more detail of its harbour.

As with the other maps in the atlas, Thomson lists five local figures who attested to the correctness of his depiction. In Renfrewshire, these were Alex. Campbell, John Wilson of Thornly, R. Walkinshaw of Park and two local surveyors, Matthew Kirkwood of Pollokshaws and James Lamb of Paisley. Exceptionally, there is no mention of Renfrewshire maps in the extensive introduction, it being the only mainland county so omitted. Copies of other Thomson maps issued in wrappers about 1831 and held at the NLS list counties still in the hands of draughtsmen and correctors and awaiting return. Renfrewshire is noted as 'in the hands of Mr. Lamb... he promised to have the Drawings of this County, corrected, long since', which may account for the omission. A later state of this original map appears in, at least, one copy of the atlas, in Glasgow University Library, where the publisher's note is removed and the plan of Glasgow south of the river has been extended.

Continuing financial problems resulted in the sale of the atlas plates about 1838 and their purchase by W. & A.K. Johnston who re-issued the maps separately. In about 1854, they published a new atlas in association with William Blackwood & Son, again based on Thomson's work, but with road and railway revisions. The original atlas was reproduced with introductory essays by Birlinn in 2008.

<b>1829</b>	<b>LOTHIAN, John</b>
	<p>RENFREW</p> <p>Size: 185 x 240 mm. Plate size: 225 x 290 mm. Scale of Miles 5 [=40 mm.] Scale: [1: 202752] or 1": 3.2 miles.          'Published by J. Lothian. 41, St. Andrew Square Edinburgh.'</p> <p>In: <i>Lothian' County Atlas of Scotland</i>. Edinburgh: J. Lothian, 1826.          Map 14.</p> <p>MLG; NLS. 1834 ed. in GUL. 1835 ed. in NLS. 1838 ed.          in MLG; NLS</p>

Lothian, an Edinburgh bookseller and publisher, began his map career by producing plans of Edinburgh and Leith in 1825 and 1826, both engraved by George Bartholomew. His atlas was intended to be first published in 1826, as the prepared title page states, but some of the maps were not finished until the following year. The atlas, however, does not seem to have appeared as a complete work until 1829, as is suggested by the frontispiece, dated 1st September 1829. Thirty-three county maps accompanied by a general map of the country were supplemented by an appendix of five historical maps. These latter maps were also issued as a separate *Historical Atlas* in 1829.

Dates on the maps seem to have been altered and copies of the atlas have maps of varying dates throughout them, causing some confusion regarding editions. Nevertheless, the changes on the individual sheets were frequently more extensive than a date alteration. Lothian's maps are identifiable by their exaggerated turnings of rivers and coastlines. They are well drawn and distinctly engraved, making the work a popular, moderately priced and portable atlas which was well received in its day. Lothian clearly took trouble to avoid unnecessary shading to aid clarity.

From its choice of names, hills and roads shown, this depiction may have been based on the 1818 Lizars engraving. Selection and location of individual features is occasionally suspect. Hills are indicated by isolated hachures and the drainage pattern has errors caused by the excessive marking of turnings. Parishes are not identified and only one moss is shown. The Ardrossan Canal is marked and Kilburnie Loch is named as L. Tanker. Since the Lizars map does not name the loch, Lothian seems to

have referred to Brown in this case. There are a small number of additions (e.g. Quarellton, Camphill, Hurllet) but, equally, some omissions are surprising (e.g. Loch Libo). The plan of Glasgow is very open and ribbon-like while it is Renfrew's longitude and latitude which is given. Title, scale bar and north point all lie in the south-west corner.

In his introductory advertisement to the edition of about 1834, Lothian informs the reader that 'Each County, after being carefully delineated from the best authorities, has undergone the careful revision of at least five or six resident individuals... By their assistance, many errors have been corrected, and numerous deficiencies supplied... on all the maps, the turnpikes and principal bye-roads are distinctly laid down'. Such emphasis on local authority mirrors Thomson and puts the work in direct competition with the latter's scheme. A later state of the map appears in this edition of the atlas, which contains a frontispiece dated 1834. In this state, the map number is changed to 15, the publisher's note is amended from Edinburgh to 'Edinr.', additional place names are shown in Dunbartonshire (e.g. Renton, Auchentorlie), 'Argyle' is identified and the map numbers of the neighbouring counties are given. In 1835, a third edition was published as *Lothian's County Atlas of Scotland: constructed from original drawings and elegantly engraved on copperplate*. This work was available in a coloured format for £1.11.6d or, for two guineas, including the appendix of historical maps. This version alters the publisher's note below the map to read 'Published by J. Lothian, Edinburgh 31st. May 1835'. A grid has been drawn over the map based on every five minutes of latitude and longitude. The coastline is extended south beyond Largs and there are several notes relating to sites of historical importance (e.g. the battle of Langside, Smollet's Mont.), although neither Elderslie nor its site as the birthplace of William Wallace is noted. Many more roads are delineated, as is the Shaws Water reservoir and its lead. Misty Law and its height (1250') are indicated and falls are named on the Calder Water. Lighthouses and their lights are noted and several more coastal features are identified (e.g. Kempoch Point, Gantock Is.). Additional place names include Balgray, Clarkston and Port Eglinton, and, extensively, beyond the county boundary in Dunbartonshire and Ayrshire. More mosses are marked by symbol (e.g. in Eaglesham). Other changes include the marking of railways, such as the lines to Greenock and Kilmarnock, and the identification of quays at Port Glasgow and Greenock. Town plans are not amended. The title is surrounded by a historical note concerning the county's history.

Three years later, the work re-appeared with a title of *Atlas of Modern Scotland Containing Maps of all the Counties*, produced by Lothian but published by John Sutherland, similarly described as the third edition. In this work, the publisher's note on the Renfrewshire map is again altered to read 'Lothian's Maps of Scotland Published by John Sutherland 12 Calton St. Edinburgh 10th Sept. 1838'. Other maps in the atlas are dated 1835. The frontispiece to this atlas notes that the work 'first appeared in the midst of much competition for public favour, and the easy preference it obtained has naturally led to a great extension and improvement of those characteristics which at first established its popularity, and to a restless exertion to work out such a general and marked superiority in the present edition as might admit of being recognised on a slight and even superficial inspection'.

It is possible that the maps were sold separately in pocket cases in their original state as *Lothians Ancient & Modern Maps of Scotland*, price 2/- and 3/6d. Later states of the maps were also sold singly as *Lothian's County Maps of Scotland for Tourists & Sportsmen* (c1834-5), with prices varying between 1/- and 2/-, or, contemporaneously in three volumes of maps folded in cases, as *Lothian's Scotch Counties*. In this later publication, the publisher's quotes are similar to that of the 1835 state. However, a significant fact is that the Renfrewshire sheet issued in this version is different in its indication of railways from that of the 1835 atlas. The line to Ardrossan is named only as the Ardrossan Railway, not the Glasgow, Paisley, Kilmarnock & Ayr line. More importantly, the map does not show the spur running north from Paisley to the Clyde nor the line to Greenock, suggesting that these sheets pre-date the publication of this edition of the atlas. On the index to these sheets are extracts of reviews of the first and second editions of the maps.

<b>c1832</b>	<b>MURPHY, William (engraver)</b>
	<p>RENFREW S.</p> <p>Size: 90 x 120 mm. Scale of Miles 10 [=44 mm.] Scale: [1: 367488] or 1": 5.8 miles.  'Drawn &amp; Engraved by W. Murphy Edinr.'</p> <p>In: <i>Pocket County Atlas of Scotland</i>. Edinburgh: Alex.Macredie, n.d. Map 30.</p> <p>CUL; NLS</p>

William Murphy had been responsible for engraving several of John Wood's town plans between 1825 and 1830. In 1828, Wood issued a volume of 48 of these plans as an untitled town atlas of Scotland accompanied by a *Descriptive Account of the Principal Towns*. Greenock and Paisley were included in this work but both plans were based on earlier depictions. Murphy was also to produce general, classical and biblical atlases which appeared up until, at least, the 1860s.

This is another small but well-engraved map which identifies only the major elements of the road, river and settlement patterns. Again, the size and scale have led to some unusual choices of place names (e.g. Egypt, Smisston) and mistakes in the sites of certain locations (e.g. Barrochan). These errors and the similarity in names and features identified (e.g. Forth & Clyde Canal, William Wd.) suggest that Brown's 1807 map was used as the base for this depiction. In this, the map differs from other sheets in the atlas (e.g. Dumfries) which have been said to be based on Lothian. In some cases, the copying has been done with little attention to reality (e.g. Fair Hill is marked as a settlement). Surprisingly, the line of the Ardrossan Canal is broken west of Elderslie. Distances, presumably from Edinburgh, are shown for Renfrew and Glasgow, the former being shown in plan form.

<b>1836</b>	<b>KNOX, James</b>
	<p>MAP/ of the/ BASIN OF THE CLYDE/ including/ RENFREW SHIRE/ with the Greater Part of/ Lanark Shire/ AND/ AYR SHIRE/ with Portions of/ West Lothian, Stirling, Dunbarton, Bute &amp; Argyll Shires,/ from a Survey by/ James Knox/ 1836.</p> <p>Size: 622 x 790 mm. Scale of English Miles 69.04 to a Degree 10 [=126 mm.]; Scale of Geographical Miles 60 to a Degree 10 [=143 mm.] Scale: [1: 126720] or 1": 2 miles.  'Outline &amp; Lettering Engd. by Jn. Muir'; 'Edinburgh: Published By John Anderson Junr., 55, North Bridge Street; &amp; William Hunter, 23, South Hanover Street'; 'Hills &amp; Plantations Engd. by W.H. Lizars'.</p> <p>GUL; MLG; NLS</p>

Knox published maps of the Forth and Tay basins, in 1828 and 1831 respectively, and this sheet is in a similar style. It covers the Clyde and its estuary between Lochranza and Carstairs, and from Buchlyvie to Cumnock, thereby illustrating all of Renfrewshire, as well as significant parts of the neighbouring counties.

Sandbanks and offshore soundings are indicated in the firth, while the landward areas show a notable degree of detail, particularly in the Clyde Valley, where the initial impression is of a confusing jumble of names. The map is, however, much clearer in areas away from the river. Many additional notes appear (e.g. at Gourock Bay, 'Here the Comet, Steamer was run down, 1825') and most of the major gentry and land owners are named beside their country seats (e.g. Castle Semple, Lt. Col. Harvey).

Upland areas are identified by hachuring in a less emphatic style than other maps by Knox. However, numerous hills are named while mosses are depicted by stippling. The note on the area between Kilburnie and Castle Semple lochs being drained but flooded in winter may indicate a reliance on Thomson's earlier map for some features. Different lettering is used to distinguish a variety of features. Drainage is well defined and much care has gone into the identification of tributaries. Parishes are delineated but not named, while the town bounds of Paisley are also marked. Despite the breadth of area covered, this has considerably more place names and a better depiction of the road network than many contemporary atlas maps (e.g. Brown, 1807). The title lies at the bottom left, in a decorated letter style. Re-issues appeared in 1837 and 1838, without any alteration.

<b>1838</b>	<b>BLACKWOOD, William (publisher)</b>
	<p>RENFREW SHIRE.</p> <p>Size: 188 x 240 mm. British Miles 6 [=49 mm.] Scale: [1: 196416] or 1": 3.1 miles.  'Engd. on steel by W.H. Lizars'</p> <p>In: <i>Blackwood's Atlas of Scotland: containing thirty-three separate maps of the counties, together with the Orkney, the Shetland, and the Western Islands. Constructed... for the New Statistical Account of Scotland...</i> Edinburgh: Blackwood, 1838.</p> <p>NLS; PCL. 1839 ed. in CUL. 1845 state in GUL; MLG; NLS. 1847 state in NLS. 1853 state in CUL; ECL</p>

William Blackwood began printing the county volumes of the *New Statistical Account* in 1834. These were accompanied by maps drawn and engraved by W.H. Lizars. In 1838, these maps were brought together in *Blackwood's Atlas of Scotland*, with the maps arranged alphabetically and available either in quarto or octavo format at one guinea or half a guinea respectively. They were also sold separately in pocket cases for one shilling. Since the Renfrewshire parish chapters are dated from 1836 to 1842, it is presumed that the atlas map pre-dates that accompanying the county volume.

Each county map details the major features. Parishes are highlighted by hand colouring. The Renfrewshire map includes the lines of the Ardrossan Canal to Johnstone and the Forth and Clyde Canal, as well as the track of the railway from Paisley to the Yoker ferry. Most parishes have churches marked but, unusually, there is no indication of Paisley Abbey. Both the Shaws reservoir and its lead are identified. The scale has led inevitably to a reduction in places shown (e.g. only 24 features are named in Neilston parish). Nevertheless, attention is given to marking policies, mosses, lochs and the drainage pattern, and relief, which is shown by hill shading. Two years earlier, Lizars had been responsible for engraving the hills and plantations on Knox's map of the Clyde Basin and there is a close similarity between the two maps in the shading depicting these features (e.g. the very noticeably square group of tree symbols marking a policy west of Houston). Despite this, there are differences between the two illustrations (e.g. Blackwood's map marks Flow Moss whereas Knox names more hills, such as Knock-more and Lyle's Hill). Knox also seems to show more roads than the subsequent map (e.g. the coast road west from Gourock and in Lochwinnoch Parish, west of Kames). Different places are named on each map (e.g. in Inchinnan, Knox locates Meikle and Little Commonsides,

Barnhill and House of Hill while Blackwood marks Beddon and Braehead). Once again, maps which look similar contain unique features. The title, placed above the scale bar, lies in the south-west corner while a plain direction arrow is located in the north-east. Figures for 56° north and a longitude 4° 30' west of Greenwich are given in the margins.

In 1839, Blackwood published a new edition of the atlas, containing only thirty one maps. More roads were added to the plates (e.g. the coast road west from Greenock and a series of routes immediately south of Erskine House) and, six years later, these maps were re-issued in *The New Statistical Account of Scotland* in a set of fifteen volumes with Renfrewshire in volume seven. They also probably appeared as the *Travelling Atlas of Scotland* at this time,<sup>19</sup> sold separately or as 31 folded maps, bound in leather for one guinea. Only two years after this, Blackwood produced a further issue of the atlas with 28 separate maps. On the Renfrewshire sheet, the railway lines to Paisley and Ayr, and Greenock are delineated. Some of the other county maps have a key to the railway symbol. In 1853, a further edition of the 1847 state of the atlas was produced by lithographic transfer. In this state, individual parishes are identified by colour wash and railways are coloured red. Even at this date, there is no indication of the Neilston line.

<b>1838</b>	<b>JOHNSTON, William and Alexander Keith</b>
	<p>RENFREW-SHIRE./ SHEWING THE/ LINES OF RAILWAY COMPLETED OR INTENDED/ FROM ACCURATE SURVEYS; THE NEW LINES OF ROAD &amp;c./ 1838./</p> <p>Size: 505 x 655 mm. English Miles 6 [=131 mm.] Scale: [1: 73920] or 1": 1.167 miles.          'Edinburgh: W. &amp; A.K. Johnston, Glasgow, Robert Weir_ Lumsden &amp; Son.'; 'Eng. by E. Butterworth Edinr.'</p> <p>MLG</p>

In about 1838, the plates of John Thomson's atlas were acquired by the Edinburgh engraving business of W. & A.K. Johnston, who reissued the sheets separately, either with or without their name added, at 8/6d. per sheet. In this case, changes other than the alteration of engraver's name include the extension of the town plans of Glasgow, Greenock and Paisley, and the delineation of the Glasgow, Paisley and Kilmarnock, and the Glasgow, Paisley and Greenock railway lines, in addition to the spur to the Yoker ferry. Dubbs Burn is marked between Castle Semple and Kilburnie Lochs and the note concerning the winter flooding of Castle Semple Loch has been removed. Apart from these changes, the map appears the same as that published by Thomson twelve years earlier, still numbered 12.

<b>1839</b>	<b>LIZARS, William Home (engraver)</b>
	<p>GEOLOGICAL MAP OF/ RENFREWSHIRE/ and north part of/ AYRSHIRE.</p> <p>Size: 192 x 238 mm. Miles 5 [=41 mm.] Scale: [1: 196416] or 1": 3.1 miles.          'Highd. &amp; Agricl. Soc. Trans. Vol.XII'; 'W.H. Lizars sculpt.'</p> <p>Accompanying: MONTGOMERY, William 'Outlines of the geology of Renfrewshire and the north of Ayrshire' <i>Prize-Essays and Transactions of the Highland and Agricultural Society of Scotland</i>, vol.VI (new series), 1839, pp.421-458.</p>

As part of a wider campaign to promote agricultural and general economic improvement throughout the country, the Highland and Agricultural Society of Scotland instituted a scheme of cash awards and medals in 1834 to encourage the geological survey of both coal districts and Scottish counties.<sup>20</sup> These surveys were to be based on the maps in Thomson's *Atlas of Scotland* and the closing date for entries was 20 October 1835. Despite the relatively short time available, three pieces of work, including William Montgomery's coverage of Renfrewshire and Ayrshire, were considered by the first adjudicating committee. In this instance, the premium of 50 sovereigns was awarded to David Milne's report on the geology of Berwickshire. Montgomery's work was criticised for its failure to portray the survey fieldwork adequately on his map, particularly his lack of cross-sections and the omissions of many important details. However, his efforts were considered sufficiently valuable that, if amended, they could be re-submitted for a future competition. This Montgomery did and he was awarded 25 sovereigns, the report and hand coloured map being published in 1839. The manuscript survey, drawn on Thomson's map and dated 1838, is held in the Royal Scottish Museum's collection.<sup>21</sup> Several differences occur between the manuscript and the published map - in particular, the colours used to indicate the various rock types are not the same, the published map uses a symbol to depict limestone rather than a colour and the manuscript coverage is restricted to Renfrewshire alone. The geological information is, however, identical in both maps.

Like other geological maps published in the twenty-four *Prize-Essays* (e.g. Peebles, 1843), this depiction is based on the Blackwood atlas map, which had been engraved by Lizars himself, but is not a direct copy. Additional names include Rashilee, Nitshill, Reeking Linn and Clovenstone and there are, additionally, changes of name (e.g. Leven W. becomes Leveran W.; Rotten Burn becomes Routan B.). Parishes are identified, while the road pattern and the illustration of lochs come from Blackwood.

Montgomery was factor on the Castle Semple estates for about twenty years and appears to have been an able geologist and agriculturist. In a final note to his report, he criticises the spelling of names on Thomson's maps of both Renfrewshire and Ayrshire but of the former, he states 'the course of streams, the position of hills, and other important matters are in general correctly laid down, although hills and rising grounds are not so distinctly marked as might have been wished'. Surprisingly, Montgomery does nothing to improve this. Apart from the identification of Hill of Stake, far fewer hills are named than on, for example, Blackwood's map and these are marked as isolated hachures. This results in the drainage system being more noticeable.

The map is coloured to identify Old Red Sandstone, coal formations and traps, with dykes, limestone and tufa marked by symbols. Dips and their angles are shown and strata are located. A vein of sulphate of barytes is located north-west of Queenside Hill. Despite the criticism of his earlier submission, this map is noticeably general in detail. Very few places are named (e.g. only Mearns K. in Mearns parish). One area of exception is around Castle Semple itself, where there is attention to the spouts and falls on both the Garnock and Calder Waters, as well as a concentration of new names (e.g. Millbank, Gavelmoss).

<b>1842</b>	<b>LAWSON, John Parker</b>
	<p>RENFREW SHIRE</p> <p>Size: 100 x 153 mm. British Miles 5 [=25 mm.] Scale: [1: 316800] or 1": 5 miles.</p> <p>'Drawn &amp; Engraved by J. Brown, N. Bridge, Edinr.'; 'The Edinburgh Printing &amp; Publishing Co. 12, South St. David Street.'</p> <p>In: LAWSON, John P. <i>The Descriptive Atlas of Scotland, containing a full and minute account of all the counties and islands ... Illustrated with thirty three elegantly engraved maps &amp;c</i> . Edinburgh: The Edinburgh Printing &amp; Publishing Co., 1842. opp. p.491.</p> <p>NLS</p>

This work, more a descriptive text than atlas, was issued as a companion volume to *The Gazetteer of Scotland*, produced by the same publishers at about the same time.<sup>22</sup> It was aimed at both the tourist and general reader but only one edition appears to have been published. Although the individual maps are relatively small, each is a detailed engraving, giving a clear portrayal of the major features. From the selection, spelling and placing of names, it would appear that this is a slightly reduced copy of the Blackwood map. However, other sources were used to provide additional names (e.g. Waterside, Carswell, Wrath W.) and the plans of Paisley and Glasgow are noticeably smaller than on Blackwood.

Size limits the information provided (e.g. only 16 features are named in Eaglesham parish) but, unlike other maps in the atlas (e.g. East Lothian), railway lines are identified - in this case, the lines to Paisley, Kilmarnock and Greenock, and the spur to Renfrew. Hachuring indicates relief, with several hills named. Shading depicts mosses and parkland is marked by symbol. Both the Shaws Reservoir and its lead into Greenock are indicated. A good impression is given of the drainage pattern and major roads are delineated. An alphabetical index to the sixteen parishes lies below the north point (bottom left), while the title is placed above the scale bar (top right). Although the parishes are numbered on the map, their boundaries are quite indistinct and at least one (no.13 for Mearns) is incorrectly placed.

<b>c1846-7</b>	<b>JOHNSTON, William and Alexander Keith</b>
	<p>JOHNSTON'S/ Map of the County of/ RENFREW/ with the/ RAILWAYS/ W. &amp; A.K. JOHNSTON. ENGRAVERS. EDINR.</p> <p>Size: 508 x 665 mm. English Miles 6 [=133 mm.] Scale: [1: 71280] or 1": 1.125 miles.</p> <p>'Edinr. John Johnston. W &amp; A.K. Johnston and Cowan &amp; Co._ Glasgow. James Lumsden &amp; Son.' 'No.12'.</p> <p>MLG; NAS; NLS</p>

This is a further state of the 1826 map appearing in Thomson's atlas of 1832, subsequently republished by the Johnstons in 1838, but now produced lithographically. Sheet changes include the alteration of the title and of the engraver's note below the map and the indication of the further extension of the railway network, (both in operation and in progress). In this version, a proposed diversion of the Ardrrossan canal is shown. Again, the county maps were issued as separate sheets, still at 8/6d. This map re-appears in the *Johnston Atlas of Scotland, containing maps of each county... laid down from*

*actual survey* of about 1855. Although the atlas is undated, the Renfrewshire sheet appeared as a published map of the Caledonian Railway in 1852. In the atlas state, 'Renfrew' re-appears above the map but the engraver's note below is removed. From an examination of the surviving maps, different states covering new railway schemes appear to have been issued at regular intervals as the system developed (e.g. a later NLS copy shows the Dumbartonshire line to Dumbarton while the Mitchell Library atlas map identifies this as the Glasgow, Dumbarton and Helensburgh Railway). New routes added include the Glasgow and Strathavon, the Dumbartonshire, the Neilston and Barrhead, and the Caledonian lines. All lines are coloured red. A later state, dated about 1862, shows the Edinburgh & Glasgow Railway and a different shaped loop to the Glasgow, Dumbarton & Helensburgh line north-west of the city.

<b>1848</b>	<b>BLACK, Adam and Charles</b>
	<p>RENFREW</p> <p>Size: 188 x 235 mm. Scale of Miles 5 [=40 mm.] Scale: [1: 202752] or 1": 3.2 miles.</p> <p>'Edinburgh, Published by A. &amp; C. Black, 27, North Bridge, 1st. May 1847.'</p> <p>In: <i>Black's County Atlas of Scotland, with the parochial divisions</i> Edinburgh: A.&amp; C. Black, 1848. Map 31.</p> <p>GUL; MLG; NLS</p>

Another Edinburgh publishing company involved in the issuing of guides, maps and atlases during the nineteenth century was that of Adam and Charles Black. Their *General Atlas* first appeared in 1840 and ran to twelve editions. All the maps in their *County Atlas of Scotland* are dated 1847 and are taken from the 1838 edition of Lothian's atlas but with certain additions to place names (e.g. Dinwan, Seafield, Thornly) and other detail. Most noticeable is the introduction of an index to parishes which are numbered on the map. However, of greater value is the improved depiction of the Lochlibo-side Hills, Loch Libo itself and Loch Goin. In 1852, the maps were reproduced lithographically, and again arranged alphabetically, in *Black's Tourist's and Sportsman's Companion to the Counties of Scotland*. All the plates bear the imprint: 'Edinburgh, Published by A. & C. Black, 6 North Bridge' but have no other changes. The atlas cost 10/6d and the maps were also available singly in cloth cases as *Black's County Maps of Scotland*, price 1/-.

<b>1854-56</b>	<b>FULLARTON, Archibald</b>
	<p><a href="#"><u>RENFREW SHIRE</u></a></p> <p>Size: 120 x 173 mm. British Miles 5 [=25 mm.] Scale: [1: 316800] or 1": 5 miles.</p> <p>'A. Fullarton &amp; Co. London &amp; Edinburgh.'</p> <p>In: WILSON, John M. (ed.): <i>The Imperial Gazetteer of Scotland; topographical, statistical and historical</i>. Edinburgh, London &amp; Dublin: A. Fullarton, n.d.</p> <p>BL; NLS; PCL</p>

A common feature of the nineteenth century production of maps was their issue in serial form in order to spread the costs, to finance further publication and to encourage a wider sale. Publishers offered a range of formats to meet differing requirements (e.g. Fullarton advertised the *Imperial Gazetteer* in monthly parts at 2/-, in issues priced 1/- and 4/-, and in half volumes, in elegant boards, at 11/6d).<sup>23</sup> Complete in twenty parts, it was to form two volumes, priced £2.4.0d. The Renfrewshire map first appeared in section 18 of this work and was published by lithographic transfer. Fullarton had first issued his *Topographical, Statistical, and Historical Gazetteer of Scotland* in 1840 and this was re-issued in 1842, 1844, 1845 and 1848 but, by the 1850s, the extent of change necessitated a completely new work. A major difficulty in tracing the history of these maps is the variety of title pages (e.g. there are frequently two title pages, the second with the subtitle *Or Dictionary of Scottish Topography*), the different places of publication, and the lack of publication dates.

This map is another state of the county depiction appearing in Lawson's *Descriptive Atlas of Scotland* of 1842, as a comparison of choice and location of place names indicates. Certain minor alterations can be detected (e.g. the coastline is now indicated by lines running parallel with the shore whereas the lines are horizontal on Lawson's map, a key to railway lines in operation and those passed and in progress lies right of the parish table). The Glasgow, Paisley and Kilmarnock railway is now named and the line to Barrhead and Neilston indicated. Surprisingly, Fullarton has done nothing to update the road network, failing to show, for example, the coast road between Greenock and Wemyss Bay. Frequently, the parish boundaries are coloured incorrectly, particularly that for Eaglesham. More noticeable is the decorative foliated design which borders the map.

The individual sheets were collected into Fullarton's *County Atlas of Scotland in a series of thirty-two maps* published in 1857, with the maps similar to those first issued in the gazetteer. Another state of the Renfrewshire map exists which indicates an additional railway line from the Great Canal through Dumbarton and one going east out of Glasgow and south of the Clyde. This is found in a later state of the gazetteer, according to an introductory letter following the prospectus, where the map has a crown and thistle design in the corners of the margins and a simplified floral pattern. This may be dated about 1859. A new edition appeared in about 1867-8 in which the original map borders have been removed and replaced by lines. Each corner is adorned with a shield bearing the Scottish Lion. According to the list of plates for this new edition, the Renfrewshire map was drawn by W. Johnston and engraved by W. Smith but remains a further state of the Lawson original. In this state, the Dunbartonshire and Wemyss Bay railway lines are delineated, while the line to Neilston is altered. Both it and the key have been reduced. These later states were again produced by lithographic transfer and may have been issued in parts from 1865 onwards and as an atlas.

<b>1857-60</b>	<b>ORDNANCE SURVEY</b>
	<p>ORDNANCE PLAN/ OF THE PARISH OF/ _____/ IN THE COUNTY OF/ RENFREW</p> <p>Size: 640 x 960 mm. Scale: [1:2500] or 25.344": 1 mile. 'Surveyed by ..., R.E. Lithographed under the direction of ..., R.E. at the Ordnance Map Office Southampton. Published by Colonel James, R.E. F.R.S. M.R.I.A. &amp;c. Superintendent. ...'</p> <p>NLS*; GUL; Selected sheets covering Renfrewshire settlements in PCL. Index sheet issued at the scale of one inch to one mile at GCA; MLG; NLS</p>

The early history of the Ordnance Survey in Scotland was a confused, protracted and contentious issue, involving much lobbying by Scottish town councils, scientific institutions and other important bodies. Among local groups in communication with the Treasury were the Commissioners of Supply

for the County of Renfrew, Greenock Chamber of Commerce and the Provost of Paisley. Concern about Treasury expenditure, contradictory evidence from expert witnesses and varying attitudes towards appropriate scales led to long delays and a lack of clear direction for the Survey. The 'Battle of the Scales' was not resolved until 1858, following a Royal Commission, when scales of 1:2500 for cultivated and rural districts and 1:10560 for uncultivated areas were finally selected. During the prolonged debate on the scale for surveying Glasgow, the city's Philosophical Society sent a memorial to the Treasury in January 1853 in favour of a six-inch base for the counties of Lanarkshire, Ayrshire and Renfrewshire, emphasising 'the great advantages and facilities for ascertaining that practicability of works of public improvement, for estimating their probable cost, and for selecting the best sites' which detailed fieldwork would support.<sup>24</sup> That year, an Ordnance Survey office was opened in Glasgow, under the supervision of Captain John Bayly, R.E. at 205 St. Vincent Street. This acted as a temporary base while surveying was conducted in the neighbouring districts. Two years later, Renfrewshire was one of three Scottish counties selected for contract work - a scheme which proved a failure for Ordnance Survey purposes.

The annual reports of the Ordnance Survey and other parliamentary papers give some impression of the progress of the survey within the county but dating the work from the information on individual sheets is a problematical business. Recorded survey dates were merely the time at which finished manuscript plans were certified as fit for publication by the Divisional Officer in charge of a particular area - in this case, Captain Bayly. There may have been a gap of between two to three years between measurement on the ground and the authorisation being given. This can be seen in Renfrewshire, where the sheets indicate survey dates between 1856 and 1858 but the Ordnance Survey itself reported survey commencing in 1854. According to individual title sheets, these plans were published between April 1857 (Eaglesham) and October 1860 (Abbey). By the time that the Sappers began in the county, some clear direction was developing and, following the usual practice, it was surveyed as a block, based on Broadfield sheet lines, and published by parish on over 180 sheets, accompanied by Books of Reference which gave the acreages of fields numbered sequentially on the maps. These books included land use information (e.g. arable, moor, houses) and carried indexes to plans of the individual parishes, occasionally with locations marked by crosses. The whole series was a superb and detailed achievement, described as 'a standard topographical authority'.<sup>25</sup> In effect, it was a sequence of individual county surveys, with a separate sequence of sheet numbers for each county. A further complication affecting areas mapped between 1855 and about 1875 is that sheets were published in parish sets, so that, for example, where a sheet covered parts of more than one parish, publication of the mapping would be done so that there was one set per parish, with much blank space on the individual sheets. Subsequently, the sheets were reprinted zincographically with mapping across the complete sheet surface.

Each sheet is headed with the parish name and the Renfrewshire sheet number and has a scale bar of one mile, divided into 80 chains, 5280 feet and 1760 yards, below the map. Some parishes have separate title pages while others (e.g. Erskine) appear on mapped sheets (e.g. sheet XII.15). Several plans contain isolated small sections of mapping which would otherwise need complete sheets for very little. There is an occasional discrepancy between the publication dates given on the title pages and those in the Books of Reference. In addition, despite the intention that this scale would cover cultivated areas, some sheets have remarkably little topographical detail on them (e.g. sheet III.11, which shows the Clyde and a sequence of beacons identifying the channel). Three parishes are recorded as having been surveyed by civil engineers; namely, Eastwood and part of Cathcart, by P.T. Klasen and Eaglesham, by Alexander Doull.

County Series maps were hand coloured following a standard format of blue for water, sienna for roads, carmine for brick or stone buildings and grey for wooden or iron buildings. They carried a wide variety of vegetation symbols and great detail on types of industry. Nearly every man-made feature of the landscape is marked and there is a wealth of place-name information. Many small towns and villages are shown in plan form, often for the first time at such a scale. Since these may be of value for researchers, the sheet numbers containing the bulk of the urban areas for the major settlements are

appended to this entry. Spot heights are marked and neighbouring parishes are named in the margins. The index to the whole county survey is a detailed map in itself and carries a table of parish areas, correct to three decimal places and broken down into acreages of land, foreshore and water. It further indicates those towns with plans published at 1:500; in Renfrewshire, these were Greenock, Paisley and Port Glasgow.

As was the usual practice, the plans of the 1:2500 were produced lithographically and published before the six-inch maps. The estimated cost for the whole county survey was put at £32930.<sup>26</sup> Re-surveys were conducted in 1892-6 and, again, in 1908-12. In May 1858, Sir Michael Shaw Stewart wrote to the Ordnance Survey Office requesting a tracing of a section of the parish of Greenock map for road purposes, which gives an indication of the attitude of major landowners towards the value and usefulness of the survey.

#### Settlement Plans on the Ordnance Survey 1:2500 maps

Barrhead	XII.15	Kilmacolm	VII.5
Bridge of Weir	VII.14	Lochwinnoch	XV.1
Eaglesham	XVII.14	Neilston	XVI.2
Gourock	I.4	Paisley	XII.2
Greenock	II.5 & 6	Pollockshaws	XIII.9
Houston	VII.11	Port Glasgow	II.11
Johnstone	XI.8	Renfrew	VIII.11
Kilbarchan	XI.7		

<b>1858</b>	<b>PHILIP, George</b>
	<p>RENFREW SHIRE</p> <p>Size: 140 x 165 mm. British miles 6 [=34 m.] Scale: [1: 285120] or 1": 4.5 miles.</p> <p>‘GEORGE PHILIP &amp; SON. LONDON &amp; LIVERPOOL.’</p> <p>In: <i>Philips' Tourist's Companion to the Counties of Scotland, and pocket atlas for the angler, sportsman, and traveller...</i> London, Liverpool, Edinburgh and Glasgow: G. Philip, 1858. Map 13.</p> <p>ECL; NLS</p>

This tourist guide contains eighty pages of text accompanied by twenty-seven county maps, as well as a general map of Scotland. It appears to have been published in 1858 and 1859. It sold subsequently, with maps printed in colours, for 5/-. Produced by lithographic transfer, the maps were initially sold uncoloured or with hand colouring and, also, separately as *Philips' [Tourists'] Maps of the Counties of Scotland* in cloth pocket cases for 6d each.

Philip's map initially appears to be similar to the later states of Fullarton's working of the Lawson original in its identification of parishes and railway lines. However, this is no copy since the scale bar, orientation, index to parishes and title lettering are all different. Nineteen parishes are identified and they are no longer in alphabetical order. The key to the railway symbol is now placed under the scale bar and north accords with the top of the map. Shading in the Clyde returns to being effected by parallel lines. Of greater importance is the lack of any hachuring or sketching of mosses or policies on Philip. Fewer place names are shown but the road network is superior to Fullarton who, even in later states, failed to mark the coast road at Cloch Point. However, no roads are shown in Dunbartonshire. Railway lines are again different, for the routes from Glasgow to Lanark and Dumbarton are marked, while the Barrhead route only runs as far as Neilston. Renfrew, as county town, is identified by block letters. Finally, the town plans of Paisley and Glasgow vary noticeably from those on the Fullarton map. From the selection and location of names and the shape of certain features, it is possible that this is a simplified version of a later state of Blackwood's map.

The complete collection was re-issued in 1860 and in 1870 as *Philips' Atlas of the Counties of Scotland: a series of twenty-seven maps*, the latter edition arranging the maps alphabetically. In the 1870 state of the Renfrewshire map, the plate number has been altered to become number 21 while additions to the rail network include the depiction of the Wemyss Bay, Helensburgh and Johnstone to Greenock lines.

<b>1862</b>	<b>[LIZARS, William Home (engraver)]</b>
	<p>RENFREW SHIRE.</p> <p>Size: 140 x 165 mm. British Miles 6 [=34 mm.] Scale: [1: 285120] or 1": 4.5 miles.</p> <p>In: DAWSON, James H. <i>The Abridged Statistical History of the Scottish Counties... from the most authentic sources... and illustrated with twenty-seven county maps</i>. Edinburgh: John Menzies, 1862. Map 13.</p> <p>GUL; MLG; NLS</p>

Earlier editions of this *History*, produced in 1853 and 1854, contain only general maps of Scotland. Most of the small county maps which accompany this work state that they were drawn and engraved by W.H. Lizars and have been produced by lithographic transfer, with hand colouring. However, although the counties are arranged alphabetically, the map numbers do not run sequentially (e.g. Perthshire is numbered 17, Ross and Cromarty 24). This gives a strong suggestion that the maps have been taken from another source and, when compared, they can be seen to be a further state of those appearing in *Philips' Tourist's Companion* of four years earlier. This makes the map inferior to Lizars own earlier engraving for the *New Statistical Account* since it fails to show mosses, policies or relief and, although a table of numbered parishes is included, the boundaries are quite indistinct in places. Less obvious alterations from the original Philip plate are the removal of the publisher's note below the map, the key to the railway symbol and the delineation of the railway line to Dumbarton. In addition, the map number has been shifted to be at the top of the page rather than the top of the map.

<b>1863-4</b>	<b>ORDNANCE SURVEY</b>
	<p>Renfrewshire</p> <p>Size: 610 x 910 mm. Scale: [1:10560] or 6": 1 mile.  'Surveyed... by Captn. Bayly, R.E. Contoured... by Captain Stotherd, R.E. Engraved... under the direction of Lt. Colonel Cameron, R.E. at the ORDNANCE SURVEY OFFICE, SOUTHAMPTON, and published by Colonel Sir H. James, R.E. F.R.S. M.R.I.A. &amp;c. Superintendent... The Altitudes are given in feet above the Approximate Mean Water at Liverpool, and those indicated thus (B.M. 54.7) refer to Marks made on Buildings, Walls, &amp;c..'</p> <p>On 19 sheets, sheets 8 and 9 appearing together, each headed 'Renfrewshire' and with the appropriate sheet number, and accompanied by an index drawn at a scale of one inch to one mile.</p> <p>GUL; NLS*; PCL (reproductions).</p>

Although the six-inch sheets appeared later, they were produced from the 1:2500 plans and their survey dates are the same. The Ordnance Survey introduced photographic reduction techniques in 1854 but, owing to a desire for a consistent appearance, copperplate engraving remained the preferred mode of printing until the early 1880s, thereby allowing very fine detail to be shown. Nineteen individuals are listed as being involved in the writing, outlining and ornamentation of the maps.

For most requirements, this scale is as informative, more comprehensive and, certainly, more accessible than the twenty-five inch survey. The maps furnish most of the details of the larger scale and only minor points are omitted. Some boundaries are not indicated in towns, not all urban streets are shown to scale, railways are mapped conventionally rather than in plan and buildings in heavily built-up areas are blocked rather than marked individually. In addition, numbers and acreages of land parcels are not given. On the other hand, this series indicates contour lines and covers the whole of the country whereas the 1:2500 marks spot heights and is restricted to cultivated and built-up areas only.

There is a limited amount of marginal information on each sheet, usually covering longitude and latitude, acreages and sheet numbers of parishes, ward names, certain named features (e.g. Loch Thom) and the destination of major rail and road routes. Two scale bars of 80 chains and 320 perches, and 5280 feet lie below the map. Sheets were priced 2/6d or 2/- for half sheets. The index again carries a table of parish areas and a key to the characters, symbols and lettering used on the individual sheets. This survey was revised in 1892-6, on 94 quarter sheets, published in 1898-9 and, again, between 1908 and 1912.

## TOWN PLANS

### Greenock

Several plans of Greenock seem to have been drawn prior to Reid's 1818 depiction but these appear to have been of limited parts of the burgh or simply proposals for new street layouts rather than showing what existed on the ground. In his book on old Greenock, Williamson<sup>27</sup> discusses improvements to the town planned by Lord Cathcart, which included a drawn out measurement of the burgh, plans of the

breast and the employment of surveyors. In particular, a Mr. Barry surveyed the marches and drew a plan defining the boundaries between the Greenock and Cathcart feus. It is possible that this was James Barry, employed subsequently as surveyor for the city of Glasgow. In 1773, David Owen put forward proposals for a new town to the east of the burgh based on a grid round a central square.<sup>28</sup> A plan of the environs of Greenock by William Douglas dated 1778 (BL) shows little of the burgh's layout. Hamilton<sup>29</sup> also mentions work by Richardson (1804), Archibald Kenneth (1807) and William Sibbald (c.1810), and emphasises the need for maps in planning streets and feus. Sibbald's designs for a new town, showing street outlines but no buildings, were never carried out and Hamilton suggests that it may have been a competitive plan to Reid's scheme. The first decades of the nineteenth century were a particularly active time for the burgh, with four local acts passed by parliament, reflecting the desire to expand and improve the harbour facilities.

<b>1818</b>	<b>REID, David</b>
	<p>PLAN/ Of/ THE TOWN OF/ Greenock/ AND ITS ENVIRONS WITH THE/ Intended Improvements/ BY/ David Reid/ 1818</p> <p>Size: 885 x 1875 mm. Scale of Feet 1500 [=170 mm.] Scale: [1: 2880] or 1": 240 feet.</p> <p>'Engraved by J. Craig Edinbh.'</p> <p>GCA; GUL; McLG; NAS</p>

This impressively detailed plan shows both the existing town and extensive street proposals based on a series of grids to the east, south, and, particularly, west of the burgh. In this, Reid's comprehensive scheme was not only part of a sequence of designs for the town dating back to the work of Barry and others but also a further example of the general movement towards civic improvement and extension which could be seen locally in Ainslie's plan of Port Glasgow (1806) and Knox's map of Paisley (1822). Clearly, earlier proposals may have influenced Reid and some may be discerned in his general plan (e.g. the eastern grid has elements similar to the design made in 1773 by Owen), particularly when the rather awkward fit of some design elements is considered. The laying out of new areas for feuing had definite financial advantages and improvement had been considered by the feudal superiors and the town council prior to 1818. It can be no coincidence that, the previous year, a local act of parliament for the further improvement of the burgh and its harbours (57 Geo.3. cap. xxxii) had received the royal assent.

The map extends from Whiteforeland Point to Garvel Point and is drawn at a scale sufficiently large to show individual properties. Many public buildings are named and a table of 19 letters refers to others. The water supply reservoirs and lead, mills, rope works, markets, toll bars and neighbouring country houses are all identified. Following the fashion of the time, many proprietors' names are given. Some of Reid's proposals seem to cut across the existing layout (e.g. south of Dempster Street) and, in particular, the marking of Clyde Street and Crescent envisages work being extended into the shoreline area. Hand colouring was to be used to delineate the four separate boundaries of the town, the Mansion House policy, Lord Cathcart's feu and the glebe. Although hachuring is used to identify some areas of rising ground, it does not provide a true picture of the nature of the site. In fact, no heights are given and much of the grid layout appears to be drawn with small regard to topography, with little impression of the steeply rising ground to the south. It is only east of Cartsburn Street that contoured street proposals suggest a steeper slope. In contrast, a series of eleven lines of soundings running offshore to the Tail of the Bank indicate the depth of the Clyde in feet at medium spring tides.

Reid had been employed by the Ardgowan Estate from about mid-1814 as a surveyor. In the August of that year, he submitted a report on laying out ground for building to the south and west of the Bridewell.<sup>30</sup> Writing on 25 May 1818 in what may be a reference to the town plan, Robert Stewart,

agent for Sir Michael Shaw Stewart, notes ‘Mr. Reid the Surveyor is working out a Plan of the ground comprehended’. Estate cash books for the period show several entries for payments to him for a range of surveying commissions.<sup>31</sup> Reid died soon after the completion of this survey on 27 October 1818<sup>32</sup> and it is possible that he had little opportunity to review the engraving before publication. Certainly, some of the hachuring seems to be quite arbitrary (e.g. east of Margaret Street), suggesting that the engraver was unfamiliar with the location.

The plan is surrounded by a black and white keyboard margin, which is cut on the western border, while the north point, oriented to 35° west, scale bar and table of references are located in the south-west corner. The title lies in the north-west section of the map. Surprisingly, the plan is recorded as being produced lithographically<sup>33</sup> but this would have been an exceptionally early and large example of such work. In fact, the three copper plates from which the map was printed survive.<sup>34</sup> These were supplied by George Harris, a London copper and brass plate maker. Based on the address of a trade label produced by David MacLure & Son and attached to one of the plates, it is more likely that the lithographic version dates from the late 1850s or early 1860s. The only noticeable difference from the engraved original would appear to be the stronger and more uniform shading of hills and quarries.

Later writers, including Williamson, regarded the plan as authoritative and its value was recognised nearly fifty years after its drawing when it was referred to in the wording of *The Greenock Police and Improvement Act, 1865* (28 & 28 Vict. cap. ccc). The act selected Reid's as the feuing plan for future proposals, which eventually included the construction of an esplanade on the shoreline running west from Campbell Street. A book of levels, subsequently prepared by Thomas Kyle, was to be used in conjunction with it. As Kinniburgh has noted,<sup>35</sup> it is significant that it was Reid's more extensive plan and not the Ordnance Survey town plan, published in 1859, that was chosen. It is most likely that the lithographic plan was produced in relation to the passage of this act.

<b>1825</b>	<b>WOOD, John</b>
	<p>PLAN/ OF/ THE TOWN OF/ GREENOCK/ FROM/ ACTUAL SURVEY/ BY JOHN WOOD EDINR. 1825./ Engd. by W. Murphy Edinr.</p> <p>Size: 334 x 640 mm. Plate size: 355 x 660 mm. Scale of Chains each 74 feet 1 Inch 10 [=83 mm.] Scale: [1: 2711.45] or 1": 3.05 chains or 225.95 feet.</p> <p>GUL; MLG; NAS; NLS*</p>

John Wood, a surveyor based in Edinburgh, appears to have begun his surveys of Scottish towns in 1818 with plans of Ayr and Dumbarton. The published results could be purchased, as they appeared, in the local towns, from Wood's home address or from Thomas Brown, the Edinburgh bookseller. The bulk of the Scottish plans were completed by 1825 and, the following year, Wood turned to surveying English and Welsh towns, beginning in the north-east. Most of these surveys continued to be engraved in Edinburgh, suggesting that Wood returned each year to prepare the fair copies. In 1828, he issued a collection of forty-eight town maps as his untitled town atlas, accompanied by a *Descriptive Account of the Principal Towns*, priced £5.5.0d. The atlas was clearly intended to stimulate urban development, Wood claiming that the plans would ‘suggest the best and most convenient mode of effecting future improvement’.<sup>36</sup> Some of the atlas depictions were not from Wood's own work (e.g. the Glasgow plan is David Smith's *Map of the Ten Parishes* of 1822) but there has been little study of the sources for many of the illustrations. They seem to have been re-issued about 1831.

This plan is significant because it is an almost direct reduction of Reid's survey of 1818, despite the title statement that it is ‘from actual survey’. The area covered and the compass orientation are exactly

similar. Although slightly altered, the list of references and the note on boundaries are all taken from the Reid map. Nothing on Wood increases our knowledge of the burgh and, because of its size, this is a less informative record (e.g. only two proprietors are named, fewer streets and buildings, such as the fish market, are identified). The reduction in scale has led to the general block shading of the town centre with less information on individual buildings. In addition, certain errors of transcription have occurred. Garvel Point has become Gravel Point while Reid's hachuring, used to identify raised ground and quarries (e.g. north and south of Fergusland), has been copied as a series of pecked lines with no description. No relief is shown. The coastline west of the battery is not shaded and the shore here could easily be mistaken for the line of a river. It is quite possible that Wood aimed to produce a more compact and manageable plan than Reid's large and rather unwieldy work.

The plan has a plain black border with a table of references to 26 public buildings in the bottom left corner. Another two references and a note on the four boundaries lie directly to the right below an eight-point directional arrow. The scale bar is placed in the bottom right while the title lies top right.

<b>1832</b>	<b>GARDNER, James (engraver)</b>
	<p>GREENOCK.</p> <p>Plate size: 310 x 765 mm. Scale of 6 Inches to 1 Mile 1 [=153 mm.]; Scale of Yards 1700 [=147 mm.] Scale: [1: 10560] or 1": 880 feet. 'Engraved by J. Gardner, 163, Regent Street.'</p> <p><i>In: Reports Upon the Boundaries of the Several Cities, Burghs, and Towns in Scotland, in respect to the election of members to serve in parliament. 1832. H.C. Paper 1831-2 (408.) XLII.1. opp. p.19.</i></p> <p>GUL; NLS*</p>

Growing demands for electoral and burgh reform following the end of the Napoleonic Wars eventually led to the Reform Act (Scotland) of 1832. In preparation for this, commissioners had been sent to the various Scottish burghs to prepare plans and reports on their boundaries. Subsequently, these were revised between November 1831 and February 1832 in an attempt to achieve greater uniformity. Proposed boundaries were to be described in a way which was independent of any plans and these were required merely to facilitate decisions on the eligibility of the proposals. Towns which appeared to be thriving were given more liberal boundaries to allow greater space for expansion and, where possible, fixed points were used to form these limits. Elsewhere, straight lines were drawn between well-marked spots on the ground. Several of the maps appear to have transcription errors which may reflect the shortage of time for revision.

The maps accompanying the reports are drawn at the same scale and are similar in style despite being executed by several London engravers. James Gardner prepared several other plans, including Paisley, Aberdeen and Edinburgh. He also sold maps and subsequently acted as an agent for the Ordnance Survey. Given their concentration on the proposed extensions to burgh authority, the depictions of the towns themselves are relatively limited. However, they regularly show a wider area than many of their predecessors. In this case, coverage extends from Kempock Point to the Port Glasgow parish march but remains limited to the water reservoirs to the south. A basic street pattern is indicated but the built-up area is shown in shaded block form. There is little mapping of industry except for the rope work, despite the mention of an iron foundry and paper factory in the report. Few public buildings are marked (e.g. West Church but not Custom House). Houses and steadings outside the centre are shown as individual solid blocks.

Major streets in the town centre are named but few are so identified in the surrounding grid proposals which are almost exactly similar to those appearing on Reid's depiction of 1818. A comparison of the two plans shows that Gardner has based much of his map on Reid. In fact, the built-up street pattern has not been altered greatly despite the passage of fourteen years. Gardner follows Reid's scheme to have Clyde Street extended beyond the existing shoreline and marks no additional buildings. Reid's delineation of the intended road from Largs is similarly copied. There is little in the way of showing relief except for the hachuring of hills which relate to the boundary line (e.g. Bow Hill).

Certain small alterations include the identification of the Shaws Water aqueduct, the naming of Brougham, Rue End and Baker Streets and Gray Place, Ardgowan Square has been wrongly copied as Aragowan, and the bowling green now named as 'Globe'. Gardner's map is more extensive and includes Gourrock as well as the land to the east of Cartsydyke. These areas may have been taken from contemporary estate plans. In keeping with similar Report plans, there is no border. Water bodies are identified by a blue wash and the boundaries are delineated in red, with significant points numbered to correspond with the report. Two scale bars, of chains and yards, lie bottom right, while an eight-point compass oriented with north 45<sup>0</sup> west of the top of the page is placed in the upper left area of the map. In the accompanying report, the Commissioners record that 'there has not been much increase of building in Greenock itself for some years, but a great many Villas have been built around it'.

<b>1842</b>	<b>MACFARLANE, Andrew</b>
	<p>PLAN/ OF THE TOWN OF/ GREENOCK/ AND ITS/ ENVIRONS/ Laid down from an Actual Survey executed by the Subscriber/ during the Years 1838__1842/ Respectfully dedicated to/ Sir Michael Robert Shaw Stewart/ of Greenock and Blackhall, Baronet/ AND TO/ THE HONOURABLE/ The Provost, Magistrates &amp; Town Council/ OF GREENOCK/ By their Most obedient Servant/ ANDREW MACFARLANE.</p> <p>Size: 620 x 940 mm. Scale of Half a Mile 4 Furlongs [=132 mm.]; Scale of Imperial Chains sixty six feet in length 40 [=132 mm.]; Scale of Feet 3000 [=151 mm.] Scale: [1: 5940] or 1": 495 feet. 'Engraved &amp; Printed by W. &amp; D. Duncan'; 'Published by Andrew Macfarlane, Land Surveyor 135 Buchanan Street, Glasgow. 9th. May 1842' '53, Argyll Arcade, Glasgow'</p> <p>GCA; McLG; NAS; NLS*</p>

First advertised in the local press in June 1842,<sup>37</sup> priced one guinea, this depiction of the town follows on from Reid in being a careful and detailed illustration showing streets, houses (many with the owner's name), quarries, important buildings, including schools, and policies. There is much attention to the burgh's industry, with the identification of cotton mills, gas and chemical works, and the detailing of the harbour and its shipyards. Again, the map includes proposed developments - although in this case, these appear to concentrate on the harbour and a new branch of the water aqueduct. Even at this date, much of the western part of the town, particularly west and south of Ardgowan Square, looks quite empty. Garden ground south of Regent Street was being laid out and built on but Clyde Crescent, as suggested in Reid's plan, is still shown as a proposal. The Glasgow, Greenock and Paisley Railway line, along with its station and the harbour branch, are marked and there is a detailed mapping of the navigable channel in the Clyde. A series of soundings, in feet and inches, and the delineation of the sand banks are based on a survey by James Thomson taken in 1837 but are quite different from those on Reid. Buoys are also located. Hill shading has been used to show relief but tends to indicate individual slopes and rises (e.g. Craigs Top) in a similar fashion to the 1818 depiction.

Like many of its contemporaries, this map abounds in additional information. The latitude and longitude of the Mid Parish Church steeple are noted, while a compass variation of 27° 51' is said to be from careful observation made in February 1840. Six illustrations of Greenock from the south-east, the railway station, custom house, Mid Parish church and the New West Parish church, in addition to the burgh crest, decorate the margins of the mapped area. Greenock's population at the 1841 census is given (38,846) and both boundaries of municipal wards and quoad sacra parishes are delineated. The map also identifies the parliamentary boundary as decided by the 1832 Reform Act. Notes include a list of significant dates (e.g. Shaws Water introduced 1827). A Greek key design surrounds the map, while the title and north point are placed in the north-west and north-east corners respectively.

<b>1859</b>	<b>ORDNANCE SURVEY</b>
	<p>Greenock</p> <p>Size: 645 x 965 mm. Scale: [1: 500] or 10.56 feet to one mile.</p> <p>On 20 sheets, being Renfrewshire sheets II.1.19, 24; 5.4, 5, 9, 10, 14, 15, 20, 25; 6.1, 6, 11, 12, 16-18, 21-23.</p> <p>BL; GUL; NLS*</p>

Urban expansion and the problems of poor sanitation in the early decades of the nineteenth century led to growing demands for improved mapping of town areas by the Ordnance Survey to remove the burden of costs of specialist surveys from individual councils. In 1855, after much debate and correspondence, the 1:500 scale was introduced as the standard for towns with a population of over 4,000 and, by 1895, most of the urban areas in Britain had been covered. Towns tended to be mapped at this scale at the same time as the 1:2500 survey but some were worked on in advance on a repayment basis. The majority of town plans in Scotland had only one edition and were not revised. However, some individual sheets seem to have been updated. Hamilton<sup>38</sup> has suggested that the extra costs for this survey were met by the Superiors and Corporation but this cannot be confirmed.

The maps were either printed from zinc or engraved on copper and buildings could be stippled or unshaded. Standard colours (e.g. carmine for masonry buildings) were also used on certain plans. In general, the mapping covered the built-up area alone rather than that enclosed by any municipal boundary and several sheets have only a small section of mapping (e.g. II.6.1). The Greenock sheets were engraved in 1858-9 and published in fortnightly intervals between 30 April and 15 July 1859, each costing 2/-. An index to the plans was prepared at a scale of six inches to one mile, price 4d. Each sheet has printing details below the plan flanked by scale bars of 300 feet and 500 links. An impressive amount of detail is given on the individual sheets and gives particular attention to such features as lamp posts, number of seats in churches, gas and water plugs, and man-holes. The depiction of the harbour installations and what might be described as public services furniture (e.g. on sheet II.5.15, at the junction of Hamilton Street and Sugarhouse Lane) shows the care taken in surveying urban features. Divisions between tenements and the ground floor interior plans of major public buildings are frequently indicated (e.g. the lunatic asylum and poorhouse on sheet II.5.20). Such information tends to be omitted from subsequent reprints, particularly after the early 1880s. These reprints frequently carry the note 'All rights of reproduction reserved'.

<b>[1861]</b>	<b>GLASSFORD, J.H. (engraver)</b>
	<p>PLAN/ OF/ Greenock and Suburbs/ ENGRAVED EXPRESSLY FOR/ THE POST OFFICE/ DIRECTORY,/ BY J.H. GLASSFORD/ CITY OF GLASGOW BANK BUILDINGS,/ 32, Cathcart Street.</p> <p>Size: 215 x 400 mm. Scale: [[1: 10560] or 6": 1 mile].</p> <p>In: <i>The Post-Office Greenock Directory, for 1861-62,1861.</i></p> <p>WLG. 1862 ed. in MLG; NLS</p>

Like many other directories, the Greenock Post Office directory had developed from smaller and less detailed registers first published at the start of the nineteenth century. Although the first issue is dated 1847, it was not until 1861 that a plan of the burgh was included and, despite the number of county directory publications, this was to be the only directory map of this period published for Renfrewshire. The preface to this edition of the directory notes that ‘the Plan of the Town, which is prefixed to the volume, has been specially prepared as an accompaniment, and, for its size, will be found useful and correct’. Smaller municipalities could rarely afford to produce their own plans and they frequently relied on the available material. This example is no different and is heavily based on the relevant six-inch sheet of the Ordnance Survey of the county published only two years earlier. However, unlike other Scottish examples (e.g. Bartholomew's Post Office plans of Glasgow), this engraving is a poorer depiction than the Ordnance map and shows no additional information. There are far fewer place names and no individual buildings are identified. Occasionally, the copying of linework has led to some unusual inclusions (e.g. the line south of Finnart and the Shaws Water aqueduct as a road). Several houses in the west of the town are not copied and there is no indication of relief. In 1862, the map was republished with Glassford's address altered to 110 Buchanan Street, Glasgow and the colouring of the coast changed north of Clyde Crescent and east of Clyde Street.

### Paisley

<b>1781</b>	<b>SEMPLE, William</b>
	<p>A PLAN/ of the Town/ OF PAISLEY &amp; SUBURBS/ with Part of the Adjacent Country/ from a Survey of Wm. Semple/ BY JAS. LUMSDEN ENGRAVER GLASGOW/ 1781</p> <p>Size: 440 x 565 mm. Scale: [c1: 8220] or c1": 685 feet.</p> <p>NAS; NLS</p>

William Semple was born in Kilbarchan on 29 April 1747 and is known for his continuations of Crawford's *History of the Shire of Renfrew* and *History of the Town and Parish of Paisley*, both published in 1782.<sup>39</sup> His education at the parish school included mensuration which enabled him to work as a land surveyor and architect for several years in Kilbarchan.<sup>40</sup> Subsequently moving to the Sneddon area, he prepared this elegant depiction of the burgh in 1781. The title page of his Paisley history notes that it contains ‘an exact survey of the town’ but it is uncertain if the plan was prepared for an inclusion that was never realised. Nevertheless, Semple refers to the plan and its elevations three times in the book and his work on Paisley was clearly seen as a comprehensive survey of the town which was also to include a plan of the Abbey burying-ground and a list of properties. One of the

few recorded surviving copies of the plan is bound with a copy of Semple's *History of the Shire* but, as other copies consulted omit the plan, this could be a later insertion.

Overall, the map gives an accurate record of the town's street pattern. Churches, tan works, wood yards, the race course and other significant features are identified. Boats are shown on the Cart below the Old Sneddon Street bridge. Hills are shaded but there is no attempt to show the general shape of the land. The immediate neighbourhood is divided into fields and the proprietors named. At this date, the town continues to be concentrated around the Cross but other areas of growth can be seen in Sneddon and stretching along Causeyside Street and New Sand Holes. One clear piece of new layout is the geometric design around Great George, Queens and Castle Streets.

The plan is dedicated to the Magistrates and Town Council and is decorated by elevations of important buildings - Mr. Lounds House, the Abbey Old Church, Town's Hospital, the homes of Bailie Smith, Mr. Caldwell, and Mr. Corse, two views of the New Inn and the High Kirk. There are references to another four buildings and a statistical table of population, looms, mills and houses. The margins have a measured alphabetical grid while the title lies in oval linework to the left of an ornate compass in the north-west. A scale bar and dedication, in a decorative leaf pattern, surmounted by the coat of arms are also placed here. The town's longitude and latitude are also indicated.

A photolithographic copy of the plan by R. Hay & Son was included in Brown's *History of Paisley*<sup>41</sup> in 1886 and, in 1978, Renfrew District Museum & Art Gallery Service issued a single sheet reproduction.

<b>1822</b>	<b>KNOX, James</b>
	<p>PLAN/ OF/ Paisley/ and its/ ENVIRONS/ FROM AN ACTUAL SURVEY BY/ James Knox./ Published and Engraved by R. Scott/ Edinburgh 13th. November 1822.</p> <p>Size: 605 x 840 mm. Scale of Scotch Chains 74 feet each 20 [=124 mm.]; Scale of English Chains 66 Feet each [=110 mm.]; Scale of Feet 1200 [=101 mm.]; Scale of Yards 400 [=101 mm.] Scale: [1: 3600] or 1": 300 feet.</p> <p>MLG; PCL</p>

This impressively detailed plan gives a very good idea of the growth of the burgh since the time of Semple and, like many contemporary surveys, provides a wealth of detail about the town and its layout. It covers the area from North Street to Hunter's Hill, and from White Haugh to the West Lone of Ferguslie. In addition to the identification of public buildings, wells, mills, tan yards, quarries and toll bars, Knox attempts to name the owners of all properties both within the town centre and in the surrounding suburban area. It is this attention to the division of buildings in the town which makes the map a valuable tool for students. Many proposed streets are indicated, particularly north of Underwood Street and around Ferguslie. Unlike the details of the town centre, these tend to have regular block frontages. Gardens and policies are shown in some detail, while notes on Roman remains are marked at Ferguslie, Oakshaw and Castlehead. The Glasgow, Paisley and Ardrossan Canal is delineated and the destinations of most roads leaving Paisley are identified. Boundary lines for both the burgh and the town parishes are shown and a population table, broken down into male and female by parish, is appended in the lower right corner. The margins are marked in 1/4 mile distances from the Cross. Hachuring is used to identify the most noticeable hills.

An eight point compass arrow, oriented with north 25° east of the top of the map, is placed to the left of the title in the lower left hand corner. In September 1821, the Town Council of Paisley, aware that

Knox, described as ‘of Edinburgh’, was in the process of preparing the plan, agreed to subscribe for six copies.<sup>42</sup> Knox was to continue producing detailed maps of the major Scottish firths between 1828 and 1836 and shows the same attention to detail in these depictions.

<b>[1828]</b>	<b>[WOOD, John]</b>
	<p>PAISLEY.</p> <p>Size: 335 x 485 mm. Scale: [[1: 7200] or 1": 600 feet]. ‘Ballantine’s lithog. 1828’</p> <p>In: WOOD, John <i>Town Atlas of Scotland</i>.</p> <p>GUL; MLG; NAS; NLS*</p>

Only three of the 48 town plans which appear in Wood’s untitled town atlas were produced lithographically. Both Dundee and Paisley were the work of W. Ballantine while A. Forrester was responsible for Inveraray. Other plans produced after the atlas was issued (e.g. Stranraer) were also lithographed. Exceptionally, among those depictions which appear in the atlas, the Paisley plan is of the same date and it is most likely that it was not available for sale prior to its publication in the atlas.

In comparison to the engraved delineations, this is a poor depiction of the town, with no public buildings identified and little indication of the built-up area. In fact, most street frontages are only shaded with the occasional building blocked in solid black. It is, in fact, an inferior reduction of Knox’s map, covering the same area at half the scale. In addition to the rough quality of the linework, building shapes (e.g. the Abbey, Underwood cotton mill) and other lines (e.g. St Mirren’s Burn) have been inexactly reproduced. Paisley is another example which shows that Wood relied on local sources frequently superior to his own versions. W. & A.K. Johnston subsequently produced an undated engraved copy of this plan.

<b>1832</b>	<b>GARDNER, James (engraver)</b>
	<p>PAISLEY.</p> <p>Plate size: 450 x 555 mm. Scale of 6 Inches to 1 Mile 1 [=152 mm.]; Scale of Yards 1700 [=147 mm.] Scale: [1:10560] or 1": 880 feet. ‘Engraved by J. Gardner, 163, Regent Street.’</p> <p>In: <i>Reports Upon the Boundaries of the Several Cities, Burghs, and Towns in Scotland, in respect to the election of members to serve in parliament</i>. 1832. H.C. Paper 1831-2 (408.) XLII.1. opp. p.15.</p> <p>GUL; NLS*</p>

By this date, Paisley had become the fifth town in Scotland in terms of population (31,460). The proposed boundary is markedly regular and the report notes that such lines were based on rising ground to leave space for town growth, given the nature of the surrounding land and the way in which the streets branch out. In one case, the line is based on a bearing to the chimney on Linwood cotton mill. Again, the town centre is shown by block shading, with street fronts heavily lined in other areas (e.g. St. James Street, George Street). The map covers an area from North Candren to Dykebar Hill and from Ralston to Braidiland farm. By showing a wider area, the depiction is a slight improvement on Wood and identifies at least two public buildings (County Hall and the Abbey) within the town. On

the other hand, Wood is a better plan for street names, particularly in outlying areas, and gives a better sense of the layout of the area around Oakshaw Street. There are sufficient similarities in the two depictions to suggest Knox as a common source for information in the town centre but this map again suggests that local estate plans were also used to provide the illustration of the surrounding area.

Other features include the indication of the policies of neighbouring country houses, toll bars, the Glasgow, Paisley and Ardrossan, and Johnstone and Paisley Canals, and an improved impression of the local industries by the marking of bleachfields, corn mills, filtering tanks, distillery and Braidiland pottery. There is more mapping of relief, by hachuring, probably due to the use of hills as bearing points. Again, an error of transcription and corruption of street names (Broomlands Well) suggests haste in the compilation of this plan. Colour is used to identify the boundary and water bodies. The title lies in the top left corner while the two scale bars are placed below an eight-point arrow, oriented at a similar angle to the Knox depiction, in the bottom left corner. A facsimile reprint of the plan with descriptive text was published as *Paisley: the Reform Act Plan of 1832* by Historical Discovery in 1992.

<b>1839</b>	<b>MARTIN, George</b>
	<p>PLAN/ OF/ Paisley/ and its/ ENVIRONS/ FROM AN ACTUAL SURVEY BY/ JAMES KNOX/ REVISED AND CORRECTED TO THE PRESENT TIME BY/ GEO. MARTIN/ 20th. March/ 1839</p> <p>Size: 585 x 830 mm. Scale of Imperial Chains 10 [=54 mm.]; Scale of Scotch Chains 10 [=61 mm.]; Scale of Feet 900 [=74 mm.]; Scale of Yards 300 [=74 mm.] Scale: [1: 3600] or 1": 300 feet.</p> <p>'Engraved by R. Scott Edinr.' 'Paisley Published By Murray &amp; Stewart'.</p> <p>NAS</p>

This new plan of the burgh was advertised in the local press in May 1839, at subscribing prices of 5/6d plain, 7/6d coloured and 10/6d coloured and mounted.<sup>43</sup> The notice emphasised the economy to the purchaser of a plan based on an earlier survey, it being a re-engraving of Scott's original plate of 1822 with the same identification of street names, public buildings, factories, industry and relief. Comparison emphasises the considerable changes in the burgh over the intervening years. However, while Martin has taken the trouble to indicate many additional features (e.g. Martyrs and South Churches, the Water Company reservoir, Stevenson Street), far fewer owners are named (e.g. on the east side of Lylesland, Knox names 10 proprietors, while Martin has only 6). The bulk of owners' names are the same as originally appeared on Knox and it is questionable whether this aspect of the map has been fully revised. This is particularly true in suburban areas where the names have frequently been reduced to surnames. Some of the editing has been quite crude (e.g. north of Stevenson Street, the name 'William' has been left while the surname 'Gilmour' is deleted; south of the South Church, there is left 'The property of' with no proprietor engraved).

Added details include the projected routes of the Greenock and Ayr railway lines, a new street layout in Greenlaw and the naming of West Campbell Street. The minister's glebe is now illustrated by garden symbols and the construction of the New Quay on the Cart has led to a noticeable change east of New Sneddon Street. The intrusion of the Paisley and Renfrew railway on to the Marquis of Abercorn's land has resulted in the removal of Lynedoch Street. In other areas, some of Knox's street proposals are still shown despite the passage of time and their lack of eventual development (e.g. the projected cross street pattern at King Street). Elsewhere, the proposals show little sign of increased occupation (e.g. north of Underwood Street, Wellington and McDowall Streets).

Orientation and coverage is similar to Knox but some internal changes are noticeable. A vignette view of the town from the canal bank has been inserted in the south-west corner, resulting in the compass being shifted. Parish marches continue to be indicated and are supplemented by a small plan of the burgh boundary, taken from the 1832 Parliamentary plan, which replaces the earlier population table. This has also led to a re-arrangement of the scale bars. The publishers, Murray & Stewart, were booksellers at the Cross. Eighteen years after its publication, Robert Stewart included a similarly priced plan in a long list of stock he was selling off, although no sale price was indicated.<sup>44</sup> The map was reproduced by Renfrew District Museum and Art Gallery Service in 1978 and reprinted in 1991.

<b>1863</b>	<b>ORDNANCE SURVEY</b>
	<p>Paisley</p> <p>Size: 640 x 960 mm. Scale: [1: 500] or 10.56 feet to one mile.</p> <p>On 32 sheets, being Renfrewshire sheets XII.2.3, 4, 7-25; 3.11, 16, 21; 6.1-4, 8, 9, 13, 14.</p> <p>BL; GUL (12 sheets only); NLS*; PCL</p>

As early as March 1853, the Paisley council had resolved to memorialise the Treasury requesting that the Paisley plan be drawn at the 10 foot scale and the maps for the counties of Renfrew, Lanark and Ayr be at six inches to the mile, with ground levels indicated by contour lines<sup>45</sup> The following year, it was agreed to apply to the government for a copy of the Ordnance plan.<sup>46</sup> Interestingly, the memorial requested that the town plan extend to the parliamentary boundaries. According to the annual reports of the Ordnance Survey, the measurement of Paisley had been finished by 1856 and was in the course of publication. However, the 1858 report records that Paisley had been surveyed and plotted and that the plans were in a 'more or less forward state'. The following year, the plans were still at the drawing stage and, as can be seen, it took another five years for the town plan to be completely published. Individual sheets record the engraving of the plan between 1862 and 1863, with publishing beginning in May 1863 and continuing through to completion at the end of March in the following year. The plans are headed 'Paisley' and have the relevant county sheet number above the map. Scale bars of 300 feet and 500 links are placed either side of the printing details below the map.

Differences occasionally appear between copies of certain sheets, particularly with regard to the presence or absence of stippling on buildings. Again, the great detail of individual features is the highlight of this plan (e.g. the poorhouse on sheet XII.2.9, the barracks on sheet XII.3.11). The mapping of close entries and outside stairs (e.g. on Neilston and Orr Streets on sheet XII.6.4) provides a valuable record of tenement buildings. One unique historical note on sheet XII.2.22 records that, at the junction of George and Maxwellton Streets, 'several persons burned here for witchcraft in 1697'. Zincographic copies of several of the sheets were made in the early 1880s. These regularly changed the imprint details and introduced the note 'All rights of reproduction reserved'. Some reprints again have less detail of the internal division of major buildings but, surprisingly, details of the floor plan of the prison remain. In one instance, on sheet XII.2.10, the zinc transfer of 1883 is a noticeably different plan from the original, with far greater detail of railway lines and buildings across West Greenlaw Gardens, including the re-alignment of Gallowhill Road and the marking of a goods shed. Other sheets carry smaller changes (e.g. sheet XII.2.4 adds a branch railway line to the earlier depiction). As with other town plans, heliozincographic copies, titled 'First Edition', were made at the beginning of the twentieth century and carry a table of symbols and combined scale bars.

## Port Glasgow

<b>[1732]</b>	<b>WATT, John</b>
	Plan of Port Glasgow  Size: 570 x 680 mm. Scale: [1: 600] or 1": 50 feet.  Birmingham Central Library. Boulton & Watt Collection, Muirhead Box III/4/13.

Watt's surviving documents show that he not only had an important role as a local surveyor but that he also kept a meticulous record of his commissions and expenditure. His cash book for 1732<sup>47</sup> records expenses of £32.17.0d paid out on 17 March for measuring Port Glasgow and £3 received for this on 10 April. More importantly, Glasgow Council Minutes<sup>48</sup> record a sum of £31.15.0d paid to him for two plans required in connection with works at the quay and boundary adjustments between the town and Sir James Hamilton of Rosehall. Watt records receipt of the money on 11 January 1733.

The location of this plan among Watt's papers and the similarity of style suggest that this is the second of those plans, since little of the harbour is shown and the burn marking the march with Newark is delineated. Watt names the Kirk, the Breast, old and new heads, Newark grounds, Port Glasgow ground and woods, with a very markedly geometric plan of the burgh. Individual building plots are laid out, particularly close to the Breast. South is at the top of the map. Comparison with the compilation plan drawn by Nisbet<sup>49</sup> shows King Street ending at the junction with Customhouse Lane and the line of Princes Street running only between Kirk Street and the Shore.

<b>c1770</b>	<b>BARRY, James</b>
	Untitled manuscript plan of Port Glasgow  Size: 520 x 695 mm. Scale: [1: 600] or 1": 50 feet.  GCA D-TC13/674.

There are several references to plans of the harbour and town of Port Glasgow drawn by James Barry in the Glasgow Burgh Records. In 1759, the city treasurer was instructed to pay him nearly £50 for various work, including a depiction of the port, while the Treasurer's Journal of the town's affairs records a payment of thirteen guineas in 1763 for a list of plans including port surveys.<sup>50</sup> Barry was regularly employed by Glasgow Town Council throughout the middle decades of the eighteenth century and was appointed Burgh Surveyor in 1773. Although dating is uncertain, the similarities in style, particularly a characteristic design pattern on building roofs, suggest Barry as the cartographer.

In addition to the kirk, ships in the graving dock, King, Church and Princes Streets, feus, building layout and plot sizes are marked. It is noticeable that the building detail beside the Breast resembles Watt's map. An ornate 32-point compass oriented 50° west of the top lies bottom right beside a scale of 500 feet.

<b>1799</b>	<b>AINSLIE, John</b>
	<p>A/ PLAN/ OF THE/ TOWN and HARBOUR/ of PORT GLASGOW/ Survey'd by John Ainslie Edinburgh/ 1799</p> <p>Size: 665 x 1990 mm. A Scale of Chains 74 feet in each 7 [=178 mm.]; Feet 500 [=172 mm.]; Yards 200 [=250 mm.] Scale: [1: 888] or 1": 74 feet.</p> <p>GCA D-TC13/676.</p>

This beautifully elegant and detailed manuscript plan covers an area from Devols Glen to Newark Castle and shows the harbour, shipyards, warehouses, dry dock, flesh market, mills, lime kiln, houses, street names, gardens, parks and orchards, churches and graveyards, Newark Castle, quarries, school, Lord Belhaven's grounds and brewery. The proposed road to Glasgow and a new street above the town are also marked. Buildings are coloured red, gardens green and the new roads are lined yellow. Given its date, it is feasible that Ainslie's commission to map the port resulted from his survey of the county three years earlier. Overall, the plan emphasises the east-west axis of the town. A large sixteen-point compass oriented to 16<sup>0</sup> west beside the title in the north-west corner and three scale bars are marked. A reproduction appears in J.D. Marwick's *The River Clyde and Clyde Burghs*, 1909.

<b>1806</b>	<b>AINSLIE, John</b>
	<p>This Plan/ of the / TOWNS AND HARBOUR/ of/ PORT GLASGOW and NEWARK/ Is most Humbly inscribed/ TO the MAGISTRATES and TOWN COUNCIL/ And other Inhabitants/ by their most Obedt. Servt./ John Ainslie/ 1806</p> <p>Size: 370 x 885 mm. Scale of Feet 800 [=152 mm.] Scale: [1:1800] or 1": 150 feet.</p> <p>'Published as the Act directs August 20th. 1806 by J. Ainslie, and Sold by the Book Sellers in Port Glasgow and Greenock'</p> <p>GCA</p>

Ainslie's was only one of a series of plans produced in the first decade of the new century, all prepared with improvement in mind. Three depictions, dating between 1801 and 1809, show various harbour proposals, including a rough copy of the earlier Ainslie manuscript by Peter Fleming of 1803.<sup>51</sup>

This 1806 plan is, in effect, a reduced engraved copy of his manuscript of seven years earlier, with certain additions and alterations. Several changes of street name can be detected (e.g. Seagate Street is now Scarlow Street, Collector's Close becomes Custom House Lane) but more significant is the addition of the new timber yard, the new dry dock and harbour extension. As the plan states, twenty thousand square yards were appropriated for new warehouse provision by act of parliament for this extension. This is likely to refer to the *Act... for maintaining the Harbour of Port Glasgow*, 1801 (41 Geo.3. cap. lii) which specifically mentions expansion over land called The Perch. Some of Ainslie's earlier proposals, such as the scheme for a new crescent and street above the town, have not been carried forward and certain features (e.g. outside stairs to closes) are marked in better detail on the manuscript. Other differences include the layout of Newark Castle gardens and the identification of buildings in the harbour, where the manuscript uses shading but omits the location of the town house.

Overall, the two plans are best used together to provide a complete picture of the building layout, names and boundaries. It again emphasises the impact of local geography in limiting the area for town growth.

Both title and scale bar lie in the bottom left and the north point, oriented with north 5° west of the top of the page, is placed in the upper right. An illustration of the plan accompanies a short discussion of the port and the features depicted in Kinniburgh 'John Ainslie's Map of Port Glasgow in 1806' *Scottish Geographical Magazine*, 76, 1960, pp.23-24.

<b>1832</b>	<b>GARDNER, James (engraver)</b>
	<p>PORT GLASGOW.</p> <p>Plate size: 275 x 300 mm. Scale of 6 Inches in 1 Mile 1/2 mile [=75 mm.]; Scale of Yards 1000 [=85 mm.] Scale: [1: 10560] or 1": 880 feet.</p> <p>'J. Gardner, Sct.'</p> <p>In: <i>Reports Upon the Boundaries of the Several Cities, Burghs, and Towns in Scotland, in respect to the election of members to serve in parliament.</i> 1832. H.C. Paper 1831-2 (408.) XLII.1. opp. p.105a.</p> <p>MLG; NLS*</p>

Again, the illustration gives only a basic street layout, with the built-up area being blocked, and the identification of a limited number of significant buildings (e.g. church, ship yard, rope work). Harbour development north of Scarlow Street is shown, suggesting in its details of the burgh that the map may be based on Ainslie's work of 1806. Although Knocknair and Dougley Hills are named, no hachuring has been used to identify relief. Once more, the plan covers a more extensive area than other maps of the burgh - in this case, stretching from Bogstone Farm to Auchenleck. Such coverage adds weight to the belief that local estate plans may have been used in the compilation of these maps. The scale bars lie in the bottom right corner while the north point is placed top right. Surprisingly, this plan does not appear in every copy of the *Reports*.

<b>1847</b>	<b>MACLURE, MACDONALD &amp; MACGREGOR (lithographers)</b>
	<p>ENLARGED PLAN OF PORT GLASGOW</p> <p>Size: c150 x 360 mm. Furlongs 3 [=147 mm.] Scale: [c1: 4200] or c1": 350 feet..</p> <p>Inset on: Glasgow, Paisley &amp; Greenock Railway. Skeleton map of proposed branches, shewing the opposing &amp; competing lines. 1847.</p> <p>NLS</p>

Covering an area west from Newark Castle to Jean Street, this plan concentrates on indicating the several proposed branch lines and sidings designed to serve the docks. Few buildings (town hall, flax mill, Wood Bank and Higholme) are identified while the major streets are named. The built-up area is marked by line hatching along street frontages only and gardens and parkland are depicted by tree symbols. Hachuring is used to give an impression of the slope immediately south of the railway line. Letters are used to identify specific features but there is no table listing these.

<b>1858</b>	<b>ORDNANCE SURVEY</b>
	<p>ORDNANCE PLAN/ OF THE TOWN OF/ PORT GLASGOW.</p> <p>Size: 645 x 965 mm. Scale: [1: 500] or 10.56 feet to one mile.  'Surveyed by Capn. Bayly R.E. Lithographed under the direction of Lieut. Scott, R.E. At the Ordnance Map Office, Southampton.  Published by Colonel James, R.E. F.R.S. M.R.I.A. &amp;c. Superintendent. November 1858'.</p> <p>On 7 sheets, being Renfrewshire sheets II.11.4, 9, 10, 14, 15; 12.6, 11</p> <p>BL; GUL; NLS*</p>

According to the annual reports of the Ordnance Survey, Port Glasgow was surveyed in 1856 and the plans were published in 1857-8. The index to this survey is merely a copy of the relevant six-inch sheet and was priced 2d in either a coloured or uncoloured version. Again, the sheets could also be purchased uncoloured (for 2/-) or coloured (for 2/6d) with the standard use of blue, carmine, grey and ochre, and a darker red for outlines. Individual sheets were headed 'Port Glasgow' with the relevant sheet number but have no printing information on them. Subsequent reprints, produced zincographically in the 1860s and 1880s and by heliozincography in 1903-4, have certain alterations to individual plans. Examples of changes include the title altered to 'Renfrewshire. Sheet... Port Glasgow', names re-arranged or omitted, letters placed differently or in a different style and the scale bars of 500 links and 300 feet. The later heliozincographs combine the scale bars into one and introduce a table of symbols below the map. These are frequently headed 'First Edition'. More significantly, marginal information on buildings and streets appears greater whereas the internal divisions of certain buildings (e.g. the Custom house, the town buildings on sheet II.11.15) are no longer identified.

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