



HISTORIC
ENVIRONMENT
SCOTLAND

ÀRAINNEACHD
EACHDRAIDHEIL
ALBA

***PINTS, POLITICS AND PIETY:
the architecture and industries of Canongate***

DISTRIBUTION OF INDUSTRY TYPES

Appendix A



Alex Adamson, Lynn Kilpatrick and Miriam McDonald
March 2016

Historic Environment Scotland (HES)

John Sinclair House

16 Bernard Terrace

EDINBURGH

EH8 9NX

Tel: 0131 662 1456

Web: www.historicenvironment.scot

www.canmore.org.uk

This document forms part of a larger report: [Pints, Politics and Piety: the architecture and industries of Canonsgate](#).

Introduction to Maps Showing Distribution of Industry Types

As part of the analysis of industrial activity within the Canonsgate study area, we took six timeslices across the area's history based on contemporary mapping and corresponding Post Office and other Directories. From the Directories, we noted the number of instances of various industry types within the Canonsgate boundary, grouping these under generic types of industrial activity.

The result of this analysis follows in this appendix, with extracts of the historic maps, the distribution maps and a short narrative explaining the finding for each timeslice.

The timeslices and maps chosen were:

- A.1:** Williamson's Directory 1773-4 and William Edgar's 'Plan of the City and Castle of Edinburgh', 1765
- A.2:** Post Office Directory 1799-1800 and John Ainslie's 'Old and New Town of Edinburgh and its Environs', 1804
- A.3:** Post Office Directory 1819-20 and James Kirkwood & Sons' 'New Plan of the City of Edinburgh', 1821
- A.4:** Post Office Directory 1853-4 and Ordnance Survey 1st Edition 1:1056 map, 1852
- A.5:** Post Office Directory 1876-7 and Ordnance Survey 2nd Edition 1:1056 map, 1877
- A.6:** Post Office Directory 1893-4 and Ordnance Survey 3rd Edition 1:1056 map, 1894

A.1:

Williamson's Directory 1773-4

and

William Edgar's 'Plan of the City and Castle of Edinburgh', 1765

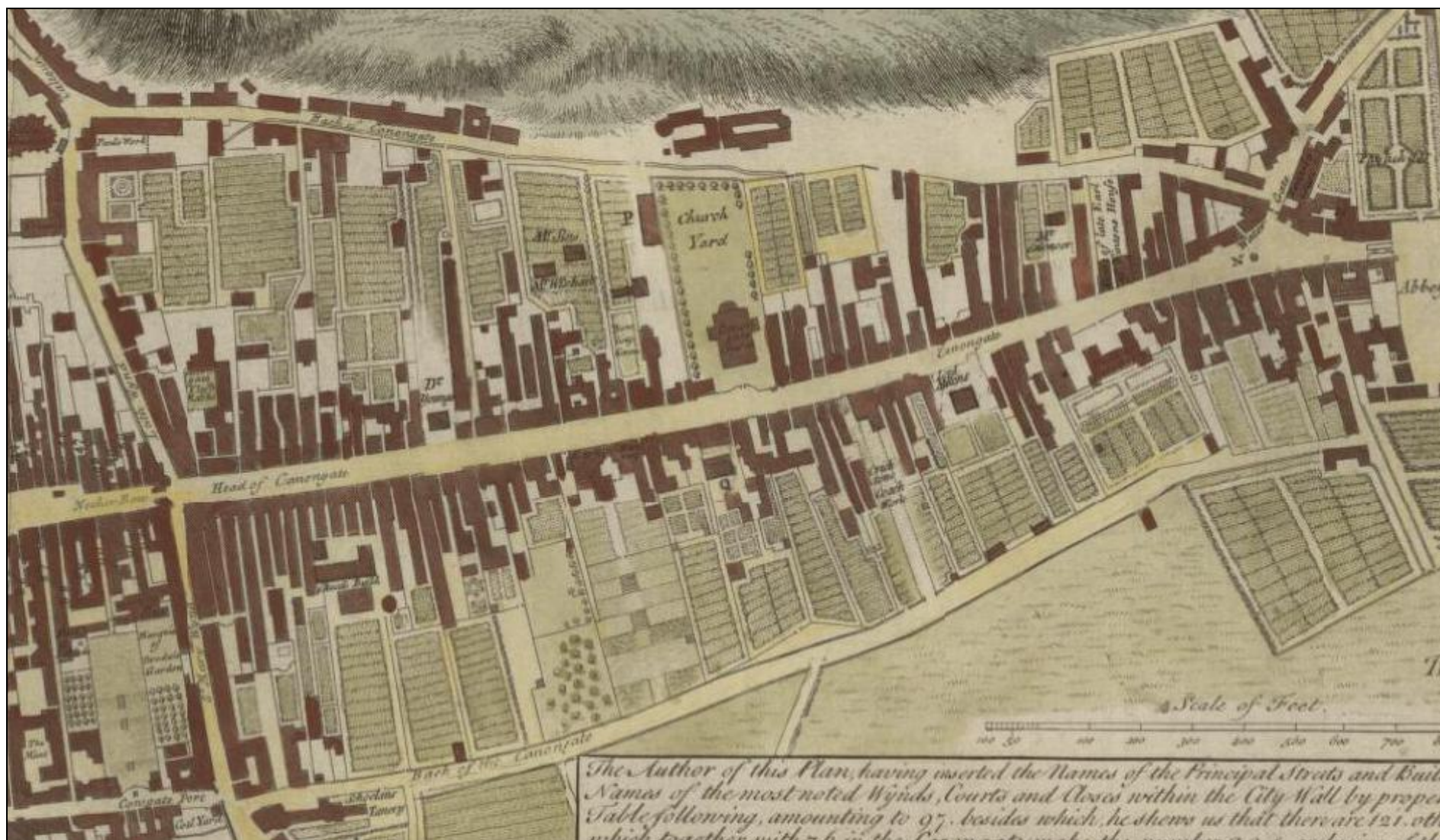


Figure 281: William Edgar's 'Plan of the City and Castle of Edinburgh', 1765 (Reproduced with the permission of the National Library of Scotland)



Figure 282: Distribution of industry types: Williamson's Directory 1773-4 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Building Construction	4	Wright
● Clothing Manufacture	1	Hatter
● Engineering: Clock Making	1	Watchmaker
● Food and Drink: Baking	12	Baxter (baker)
● Food and Drink: Brewing	14	Brewer
● Leatherworking	1	Harness maker
● Leatherworking: Processing	2	Currier; Tanner
● Leatherworking: Shoemaking	4	Shoemaker
● Metalworking: Blacksmithing	2	Smith
● Metalworking: Non Ferrous	2	Gold smith; Copper smith
● Stoneworking	3	Marble cutter; Stone warehouse; Mason
● Textiles: Linen and Flax	1	Lint dresser
● Textiles: Processing	1	Dyer
● Textiles: Weaving	3	Weaver
● Woodworking	1	Turner
● Woodworking: Coachbuilding	2	Coach maker
● Woodworking: Coopering	3	Cooper
	57	

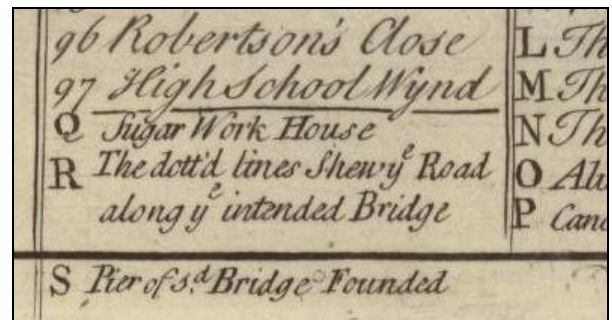
William Edgar's 'Plan of the City and Castle of Edinburgh', 1765, was produced to show the names of the 'most noted Wynds, Courts and Closes within the City Wall by proper numbers in the Plan...' and thus does not show the same details outwith the walls into which Canongate falls, as it was a separate burgh at this time. The legend and key to the numbered closes also states that Canongate contained 76 such wynds, courts and closes, although these are not numbered or listed, unlike the High Street of Edinburgh depicted on the map.

Only two industrial activities are singled out in Canongate for depiction and naming: 'Crichton's Coach Works' is noted on the map, while the building denoted by 'Q' is listed as 'Sugar Work House' in the key at the bottom right of the original map (see Figures 283 and 284 below). The lack of industrial activity noted on William Edgar's map is because most brewing and other product making would have been carried out in a domestic or workshop setting rather than in purpose-built structures. The 'sugar work house', or sugar refinery, was sited in what is still called Sugarhouse Close at 160 Canongate. The whole plot running from 160 Canongate and south to 41-53 Holyrood Road was excavated by Headland Archaeology in advance of development in 2010-12, when six phases of development were identified. Two sets of wall remains in one of the three phases pre-dating the brewery development have been identified as possibly being part of the 'sugar work house' depicted on William Edgar's map and occupying the site between 1752 and 1853.¹ Archaeological finds of pottery, such as moulds used to form sugarloaf cones² (the sugar was then broken off the sugar cones as needed using sugar 'nips' or pincers)³ and jars for holding syrup, were evidence of the sugar refining on site.

¹ Wilson, Donald, August 2012, *Sugarhouse Close, 160 Canongate, Edinburgh: archaeological works for Watkin Jones Group*, Edinburgh [Online] Available from: http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-417-1/dissemination/pdf/headland1-128478_1.pdf [Accessed 01/02/2016]

² <http://www.scs-sugar.sk/webobrazky/image001-jpg.jpg> [Accessed 01/02/2016]

³ <https://en.wikipedia.org/wiki/Sugarloaf> [Accessed 01/02/2016]



Figures 283 and 284: Extract from William Edgar's 'Plan of the City and Castle of Edinburgh', 1765, showing 'Sugar Work House' denoted as 'Q' (Reproduced with the permission of the National Library of Scotland)

Williamson's Directory, 1773-4 gives us a clearer picture of the diversity of craft industries in the area, where people were producing products on site. Fourteen brewers are noted in the Canongate area, including one James Arnot in Campbell's Close. Campbell's Close eventually became part of the Balmoral Brewery maltings when it was rebuilt in the late 1890s. Four brewers were operating at the foot of New Street: George Bairnsfather; Mrs Blair; John Fleming; and John Carinton. Two brewers, James Gilbert and John Hunter, were operating at the 'foot (north end) of Tolbooth Wynd'. James Hardie and Robert Davidson were brewing at 'Canongate-foot (east end)', along with William Fenton in the Watergate area (now the junction of Calton Road, Abbeyhill and Canongate) and James Gentle at Gentle's Close.⁴ Already we can see a pattern developing with a focus for breweries in the north Canongate area and the very beginnings of brewing setting up towards the South Back of Canongate.

Some of these names would continue to play a major role in Edinburgh's brewing industry, including Blair, Hunter and Hardie. The continuity of breweries in the area is also evident. For example, James Gentle at Gentle's Close (120 Canongate): this brewery continued to be used after his death in the 1780s by Richard Younger until the 1790s, before being purchased by Alexander Berwick in 1822. It was then sold in 1858 to William Younger & Company who rebuilt and renamed it Holyrood Brewery.⁵ Some of the Holyrood Brewery buildings survive and have been adaptively reused in recent years ensuring that the character of the 19th century brewing boom in the Canongate can at least be referred to in the 21st century streetscape.

The production of bread is also well represented with twelve baxters or bakers noted, mostly on the Canongate itself, two at Canongate 'foot' or east end, seven at the 'head' or west end, and three near the Canongate Kirk. Leatherworking in the form of shoemaking is noted at the 'head' of Canongate, nearest the High Street of Edinburgh.

Weaving is mentioned three times, twice in Shoemakers' Close. This would have been in the form of hand looms in tenements or workshops. Three coopers are noted and are located in open yard areas: White Horse Close; 'opposite' Chessel's Court (presumably in the tenements and open court area now demolished); and in Jack's Land (which stood opposite the entrance to St John Street but no longer exists). A currier operated at the foot of Jack's Close (just west of Shoemakers' Close) who may have supplied the tanner noted at the 'foot' (north end) of New Street.

⁴ *Williamson's Directory for the City of Edinburgh, Canongate, Leith and Suburbs, 1773-74*, Edinburgh, pp 3, 10, 16, 23, 27, 31, 38

⁵ <http://www.archives.gla.ac.uk/sba/sbacolls/bk.html> [Accessed 01/02/2016]

The directories provide an amplification of the activities carried out in the Canongate in the late 18th century and depicted on the maps around this time. During this period, maps were business enterprises in their own right and often do not show the extent of services available in the burgh which would have actually been operating at a subsistence level. Many more can be found listed within the street directories, which also operated as business enterprises.

A.2:

Post Office Directory 1799-1800

and

**John Ainslie's 'Old and New Town of Edinburgh and its Environs' Map,
1804**



Figure 285: John Ainslie's 'Old and New Town of Edinburgh and Leith', 1804 (Reproduced with the permission of the National Library of Scotland)

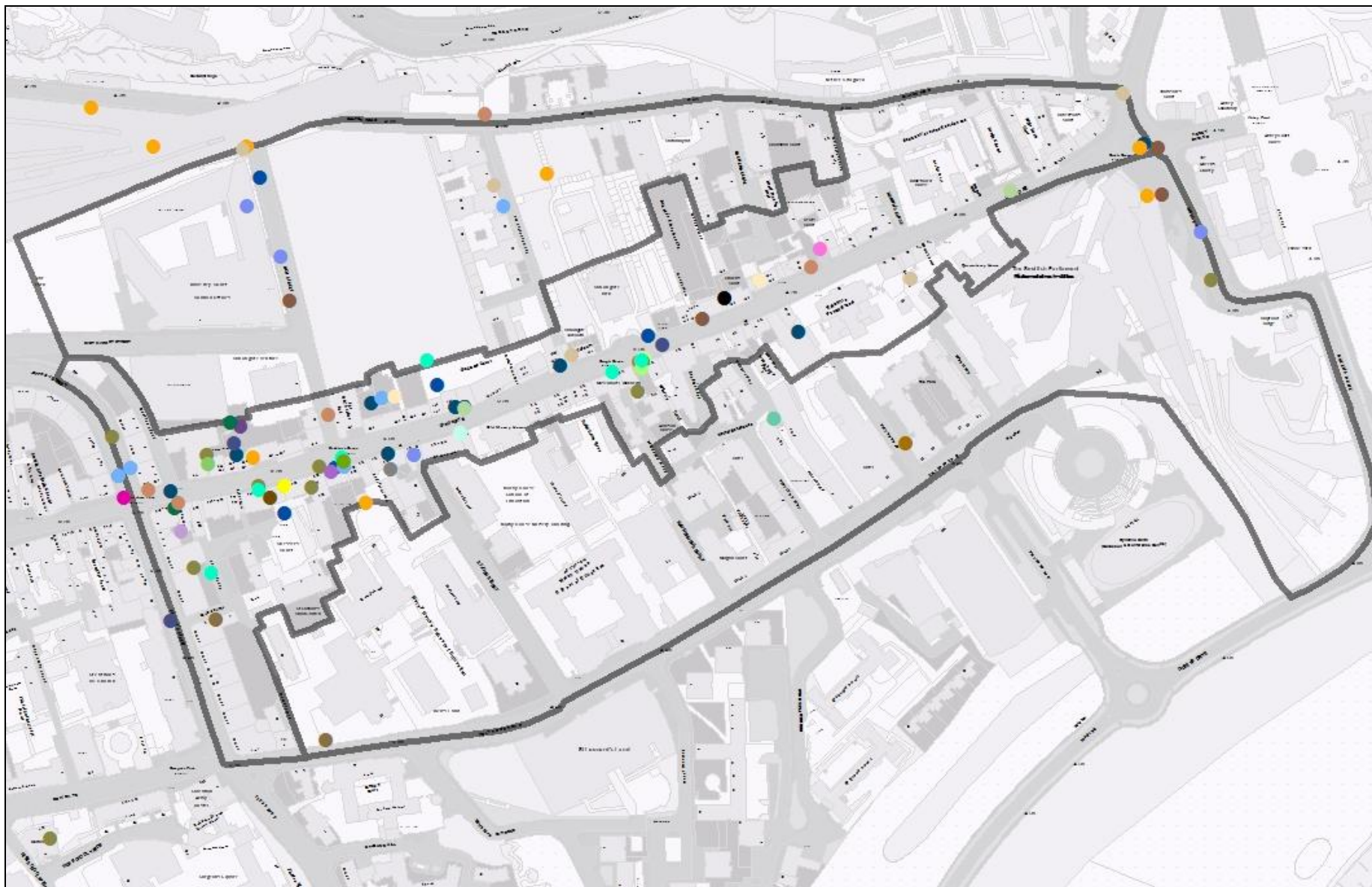


Figure 286: Distribution of industry types: Post Office Directory 1799-1800 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Building Construction	4	Wright; Mason
● Chemicals	1	Fireworks makers
● Chemicals: Candlemaking	1	Candlemaker
● Clothing Manufacture	6	Stay maker; Stocking maker; Tambour worker; Mantua maker; Hatmaker
● Craft: Embroidery	1	Embroiderer
● Craft: Engraving	1	Engraver
● Craft: Musical Instrument Making	1	Tambourine maker
● Engineering: Clock Making	3	Watchmaker; Clock and watchmaker
● Food and Drink: Baking	9	Baker
● Food and Drink: Brewing	8	Brewer
● Food and Drink: Meat Processing	1	Flesher
● Leatherworking	5	Leather case maker; Saddler; Leather merchant; Whip maker; Leather dealer and umbrella maker
● Leatherworking: Processing	2	Tanner
● Leatherworking: Shoemaking	11	Shoemaker; Leather spatterdash maker
● Metalworking: Blacksmithing	3	Smith; Farrier
● Metalworking: Iron	4	Smith; Founder and grocer; Iron founder
● Metalworking: Non Ferrous	5	Watch case maker; Silversmith; Goldsmith; Pewterer; Clock dial and tea tray maker
● Printing and Publishing	1	Printer
● Stoneworking	5	Mason; Slater; Marble cutter; Mason and measurer
● Textiles: Cotton	1	Thread manufacturer
● Textiles: Linen and Flax	2	Flax dresser; Lint maker
● Textiles: Rope	1	Rope maker
● Textiles: Weaving	2	Weaver
● Textiles: Wool	1	Stocking maker
● Woodworking	1	Chair maker
● Woodworking: Cabinetmaking	6	Cabinet maker
● Woodworking: Cartwheel Making	1	Wheel wright
● Woodworking: Coachbuilding	1	Coach builder
● Woodworking: Coopering	1	Cooper
● Woodworking: Cork	1	Cork cutter
● Woodworking: Pulping and Papermaking	1	Paper makers and tea dealers
	91	

John Ainslie's 1804 map 'Old and New Town of Edinburgh and Leith with proposed docks' does not name any industrial activity, but it does depict four courtyard-layout buildings (a morphology which often suggests breweries) at the sites of the later Craigend, Drybrough's, Calton Hill and Craigwell Breweries on the former North Back of Canongate (now Calton Road). Alexander Berwick's Brewery at Gentle's Close,

120 Canongate, is depicted by a courtyard complex on the map, though not named, nor is it listed in the directory. A U-shaped building at the west end of the south side of North Back of Canongate was probably also a brewery. The site is named as owned by 'Mr Dryburgh' on William Bell's 'Plan of the Regality of Canongate' of 1813 and as 'Mr Caddle's Brewery' on James Kirkwood & Sons' 'New Plan of the City of Edinburgh' of 1821.

The vagueness of the naming of breweries in the **Post Office Directory 1799-1800** is difficult to translate into exact locations, where sometimes only a street name is given. Eight brewers are noted in the areas which, after this time, become associated with the larger breweries of the later 19th century, notably North Back and South Back of Canongate (now Calton Road and Holyrood Road, respectively). These are: James Archer, Abbey; James Dryburgh, North Back of Canongate; John Hardie, Abbey; John Hunter (brother-in-law of William Younger II and taken into partnership with him in 1808), North Back of Canongate; P Morison, foot of New Street, Canongate (to the east of what was later Craigend Brewery); Alexander Walker, Playhouse Close, Canongate (formerly Robert Stein's Brewery); Younger & Sommervill, North Back of Canongate; and William Younger, Abbey.⁶

'Mr Crichton's Coach Work', named on Alexander Kincaid's 'Plan of the City and Suburbs of Edinburgh' of 1784, and subsequently named as 'Mr Carfrae's Coach Work' at 112 Canongate on James Kirkwood & Sons' 'New Plan of the City of Edinburgh' of 1821, is shown, but not named, on John Ainslie's map of 1804 at 'Crichton's Entry' (number 23 on his key). Sugarhouse Close (160 Canongate) is also listed as number 17 in the key and a building corresponding to the sugarhouse itself is identifiable, though not specifically named.

Over a generation on from William Edgar's map and Williamson's Directory, some 91 crafts and industrial activities are noted within the Canongate area in the Post Office Directory for 1799-1800. Whether this is due to an increase in service provision or an increased take up of the use of street directories by business people is difficult to say. The Post Office Directory shows a concentration of activity at the head, or east end, of the Canongate. Metalworking, stoneworking and clothing manufacture are also well represented in the area by this time.

⁶ *The Edinburgh and Leith Directory, 1799-1800*, Edinburgh, pp 88, 129, 154, 162, 203, 251, 260

A.3:

Post Office Directory 1819-20

and

James Kirkwood & Sons' 'New Plan of the City of Edinburgh', 1821



Figure 287: James Kirkwood & Sons' 'New Plan of the City of Edinburgh', 1821 (Reproduced with the permission of the National Library of Scotland)



Figure 288: Distribution of industry types: Post Office Directory 1819-20 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Building Construction	3	Mason and smoke doctor; Builder
● Chemicals	2	Chemical works
● Chemicals: Glassmaking	1	Caledonian Glass works
● Clothing Manufacture	1	Straw hat maker
● Craft: Musical Instrument Making	2	Maker of violin and cello; Harp maker
● Engineering: General	4	Wright; Patent axle manufacturer
● Engineering: Machine Making	1	Mechanicians and patent press manufacturers
● Food and Drink: Baking	6	Baker
● Food and Drink: Brewing	9	Brewer; Porter brewer
● Food and Drink: Meat Processing	1	Flesher
● Food and Drink: Sugar Making	1	Sugar works
● Leatherworking: Processing	5	Tanner; Currier
● Leatherworking: Shoemaking	2	Shoemaker; Boot and shoemaker
● Metalworking	2	Metal workshop; Tool cutter
● Metalworking: Blacksmithing	1	Smith
● Metalworking: Iron	2	Iron works; Iron founder
● Metalworking: Non Ferrous	4	Tinsmith; Brass founder; Tin plate maker
● Miscellaneous Products	3	Comb maker; Fireworker and figure maker; Umbrella maker
● Printing and Publishing	1	Printer
● Stoneworking	1	Mason and smoke doctor
● Textiles: Linen and Flax	2	Flax dresser
● Textiles: Processing	2	Dyer; Silk dyer
● Woodworking	4	Lathe splitter; Chair maker; Turner
● Woodworking: Cabinetmaking	4	Cabinet maker; Cabinet maker and wood merchant
● Woodworking: Coachbuilding	1	Coach maker
● Woodworking: Coopering	1	Cooper
● Woodworking: Cork	4	Cork cutter
	70	

James Kirkwood & Sons' 'New Plan of the City of Edinburgh' 1821 shows four named industrial sites and depicts a further possible four. There are two named breweries: Mr Berwick's Brewery at 120 Canongate; and 'Mr T Caddle's Brewery' at the west end, south side of North Back of Canongate and Gilmour Street. Caddle's Brewery site, although depicted, ceases to appear in the Post Office Directory after 1818. There is also a coachbuilder and a glassmaker shown: 'Mr Carfrae's Coach Works' at 112 Canongate; and 'Mr Ford' at South Back of Canongate, respectively.

'Richd Young's (Younger) Brewery' at Gentle's Close, off South Back of Canongate, is depicted and named. It had been producing beer on the site since 1788. 'Mr Stein's Brewery', built 1800 and later to become Edinburgh & Leith Brewery, and a 'Tan Works' at Gullan's Lane, west end of South Back of Canongate, are also depicted and named.

The Post Office Directory 1819-20 shows 70 different service/craft/industrial undertakings. There is a drop in leatherworking overall but an increase in shoemaking. Brewing and baking have dropped very slightly from 1800. Brewing firms noted are: Alexander Berwick, Gentle's Close; Andrew Dryburgh, North Back of Canongate; Samuel Halket, foot of New Street (which may have been incorporated into Dryburgh's brewery

to the east of Craigend Brewery); Muir & Sons, North Back of Canongate (later Calton Hill Brewery); Robert Stein (later became Disher's Brewery), St John Street; David Whitelaw, West Campbell's Close (latterly became maltings for Balmoral Brewery, Calton Road); Richard Young, South Back of Canongate (later within premises of Holyrood Brewery); and Younger & Hunter, Horse Wynd (later Abbey Brewery).⁷

Making its debut on maps of Edinburgh, the New Street 'Gas Works', built on the 'property of Alex Ramsay Esq.' (on Robert Kirkwood's 'Plan of the City of Edinburgh and its Environs', 1817), is depicted and shown as potentially five buildings which correspond roughly to buildings depicted on the Ordnance Survey 1st Edition 1:1,056 map of 1852 as: 'Fire Department and Retorts'; 'Purifying House'; and three buildings containing 'Gas Holders'. All these named buildings are gone or, more likely, subsumed within the works, by the time of the Ordnance Survey 2nd Edition 1:1,056 map of 1877. The Gas Light Company offices in New Street are not noted in the street directories until 1820-21, but the construction of the gasworks had begun in 1817 and was completed by 1818. The first trained specialist acquired at the gasworks was John Grafton (1796-1872), a pupil of Samuel Clegg (1791-1861) of the London Chartered Gas Company.⁸ Grafton would have designed and overseen the building of much of the gasworks.

Gas was produced by heating gaseous coal in retorts (closed-ended vessels made initially of iron, then later heavy ceramics), heated, the gases driven off into a hydraulic main (this stopped blow back into the retorts when the retort doors were opened for charging with coal), which are then purified, by-products removed and sold on, the gas stored in a holder, metered and distributed. The gasholders at this time would have been of wood on an iron frame suspended above a water-filled pit and would need to be covered by a masonry building to keep out the elements. The retorts would have been single fired (not in multiples and fired from one producer furnace) and made of cast iron. These buildings would have provided the required cover for the retorts, gasholders, pipes, lime stores, purifying apparatus and coal stores. By-products such as tar, ammonia and sulphur compounds were not processed or recycled in the early days of gasworks technology and tended to be collected and dumped. Indeed it was noted that the fetid atmosphere engendered by the gasworks in New Street from the gas escaping from the retorts was joined by the lime water used to purify the gas coming up the drains of houses in New Street. The location of the gasworks, which ultimately caused the downturn of the once genteel New Street, would originally have been chosen partly as the lay of the land would have reduced the amount of pumping needed to move the gas to its customers, which was always a consideration in the building of early gasworks. New Street was in competition with Tanfield gasworks, in the Canonmills area, from the late 1820s, but was able to 'manage prices to their mutual benefit'.

On South Back of Canongate, a 'Mr Ford' is shown on the map. This was a flint glassworks constructed 'about the beginning of the century' and is depicted as having one furnace.⁹ Mr William Ford first appears in the Post Office Directory for 1811-12 as being at the Caledonian Glassworks, North Back of Canongate. Ford is not listed in 1816-17, but by 1817-20 he is at Bull's Close on the south side of Canongate. Between 1820 and 1823-4 the business is again not listed. This lack of listing suggests that either the business was in difficulty or William Ford was in ill health. By 1824-5 the Post Office Directory notes a John Ford, Mid Lothian Glass-works at 'Holyrood Street', presumably still in Bull's Close on South Back of Canongate.¹⁰

By the time the 1819-20 Post Office Directory was published, the sugar works noted on previous maps at 160 Canongate is functioning as such under the name of George Kincaid & Co.¹¹

⁷ *The Post Office Annual Directory, 1819-20*, Edinburgh, pp 68, 122, 160, 245, 309, 340, 350, 351

⁸ https://en.wikipedia.org/wiki/Samuel_Clegg [Accessed 01/02/2016]

⁹ Bremner, D, 1868, *The Industries of Scotland: their rise, progress and present condition*, Edinburgh, p 377 [Online] Available from: <https://archive.org/details/industriesscotl00bremgoog> [Accessed 01/02/2016]

¹⁰ *The Post Office Annual Directory, 1811-12*, Edinburgh, p 87; *Ibid*, 1817-18, p 88; *Ibid*, 1819-20, p 135; *Ibid*, 1824-5, p 75

¹¹ *Ibid*, 1819-20, p 189

A.4:

Post Office Directory 1853-4

and

Ordnance Survey 1st Edition 1:1056 map, 1852



Figure 289: Ordnance Survey 1st Edition 1:1056 map, 1852 (Reproduced with the permission of the National Library of Scotland)



Figure 290: Distribution of industry types: Post Office Directory 1853-4 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Building Construction	3	Wright
● Ceramics	1	Pipeclay and bath brick merchants
● Chemicals/Public Utilities: Gas	1	Plumber/gas fitter
● Chemicals: Candlemaking	1	Candlemaker
● Chemicals: Glassmaking	5	Glassmaker; Holyrood Glass works; Musical glass manufacturer; Cut glass manufacturer
● Clothing Manufacture	11	Straw hat maker; Tailor; Hatter; Hat makers
● Craft: Bone Carving	1	Comb maker
● Engineering: Clock Making	2	German clock maker
● Engineering: General	5	Engineer; Plane and edge tool maker
● Engineering: Machine Making	1	Engine manufacturers
● Food and Drink: Baking	18	Baker
● Food and Drink: Brewing	13	Brewer; Barm brewer
● Food and Drink: Confectionery	1	Confectioner
● Food and Drink: Meat Processing	19	Flesher
● Food and Drink: Sugar Making	1	Sugarworks
● Leatherworking: Processing	12	Tanner; Currier
● Leatherworking: Shoemaking	10	Shoemaker; Boot and shoemaker; Bootmaker; Cork sole maker
● Metalworking: Iron	2	Hingemaker; Foundry
● Metalworking: Non Ferrous	3	Tinsmith; Goldbeaters; Tinplate worker
● Metalworking: Typefoundry	3	Type founders
● Printing and Publishing	13	Printer; Printer and stationer; Bookbinder; Printers' joiners; Stationer/bookseller; Printing and copying press maker
● Textiles	1	Rag dealer
● Textiles: Processing	1	Dyer
● Textiles: Rope	3	Rope maker; Rope and sail maker
● Trade: Painting and Decorating	2	Painter, house
● Woodworking	3	Joiner; Last and boot tree maker; Turner
● Woodworking: Cabinetmaking	4	Cabinetmaker
	140	

The Ordnance Survey 1st Edition 1:1056 map of 1852, gives an excellent detailed view of the Canongate area just prior to the City Improvement Scheme of the late 1860s. The following departments of the Edinburgh Gasworks are depicted: three Coal Sheds; one Gasometer; one Meter House; two Purifying Houses; four Gas Holders; one Lime House; one Smithy; 'Fire Department Retorts &c.'; and Chimney.

The growth of the gasworks reflected the expanding gas-consuming population. By the time the gasworks closed in the early 1900s, when Granton Gasworks came on stream, it would have been quite different in form and size to the earlier gasworks. Due to the costs of upgrading, modernisation moved relatively slowly and, as can be seen by comparing the Ordnance Survey 1st and 2nd Edition 1:1056 maps of 1852 and 1877, existing buildings appear to have been incorporated into the expanding site, in particular the Magdalene Asylum and Tobacco Pipe Manufactory (see Section 7, page 46). However, the coal gas-making apparatus

would need to have been upgraded to retort benches, ceramic retorts and multiple gasholders at the very least to keep up with demand and to keep the cost of producing coal gas to a minimum.

At this point, St Mary's Wynd has not yet been widened or renamed, and to the rear of the tenements on the east side in Boyd's and Gullan's Closes, there are two tanneries or tanyards depicted on the Ordnance Survey 1st Edition 1:1056 map of 1852. Tanneries required space, water, supplies of hides and oak bark and other organic chemicals. Traditionally an urban craft, tanneries in such close proximity to populations was common at this time. The depiction of the tanneries themselves shows the layout of deep pits in a grid pattern with balks (timber beams) between them into which the hides were placed to be steeped in various liquors containing various organic compounds to achieve the cleaning and preservation of the hide. There may also have been pits containing dyestuffs as well.

The Post Office Directory 1853-4 provides further information on these tanneries. It notes that: 'Hugh Brown', currier and tanner, carried out business at Gullan's Close; Adam, David and James Johnston were listed separately as tanners and curriers at 66, 68 and 70 St Mary's Wynd; and also 'Thomas Russell', currier, operated in Boyd's Close.¹² Currying is the process by which hides are prepared for tanning by removing hair and fats. The tanning process stops the putrefaction of hides. Historically, this was achieved by the use of oak bark, although it was a lengthy process. Chemicals were developed that cut the time it took to tan or preserve individual hides. The depiction of the tanneries on this map suggests that they were open to the elements, rather than covered or enclosed.

Edinburgh was one of the main leather manufactory centres in Scotland in the mid-19th century and was one of the three main leather markets along with Glasgow and Aberdeen. Such tanneries would have produced much in the way of effluent – solids as well as lime liquor and water containing tannic acid from the bark pits. Other substances such as pigeon dung could also be used in the preparations for tanning. The move to get the so-called 'stink industries' out of city centres meant that these would be moved to less populous areas, hence the disappearance of these tanneries by the time of the Ordnance Survey 2nd Edition 1:1056 map of 1877.

Thirteen brewers are listed in the Post Office Directory: John Aitchison & Co, 48 South Back of Canongate; John Blair & Co, 23 North Back of Canongate; James Muir & Son/Calton Hill Brewery, 26 North Back of Canongate; Thomas & James Bernard, 71 North Back of Canongate; Drybrough & Co, 67 North Back of Canongate; J & W Burnett, North Back of Canongate; Alex Berwick & Co, Wilson's Court, 134 Canongate; Edinburgh & Leith Brewery, 200 Canongate; James Pringle, 'barm brewer', Gibb's Entry; and William Younger & Co, Horse Wynd, The Abbey Brewery.¹³

The site of the sugarhouse/sugarworks in Old Sugarhouse Close now also has candlemakers 'Leith Candle Company' listed.¹⁴

The number of bakers noted in the Directory has risen to eighteen, although these would have been small shop-based producers given the addresses listed. It is likely that baking at this time would still have been done on a small-scale as large-scale wholesale bakers did not really develop until the very end of the 19th century.

¹² *The Post Office Annual Directory, 1853-4*, Edinburgh, pp 56, 108, 109, 158

¹³ *Ibid*, pp 42, 51, 53, 60, 78, 80, 139, 149, 192

¹⁴ *Ibid*, p 116

A.5:
Post Office Directory 1876-7
and
Ordnance Survey 2nd Edition 1:1056 map, 1877



Figure 291: Ordnance Survey 2nd Edition 1:1056 map, 1877 (Reproduced with the permission of the National Library of Scotland)

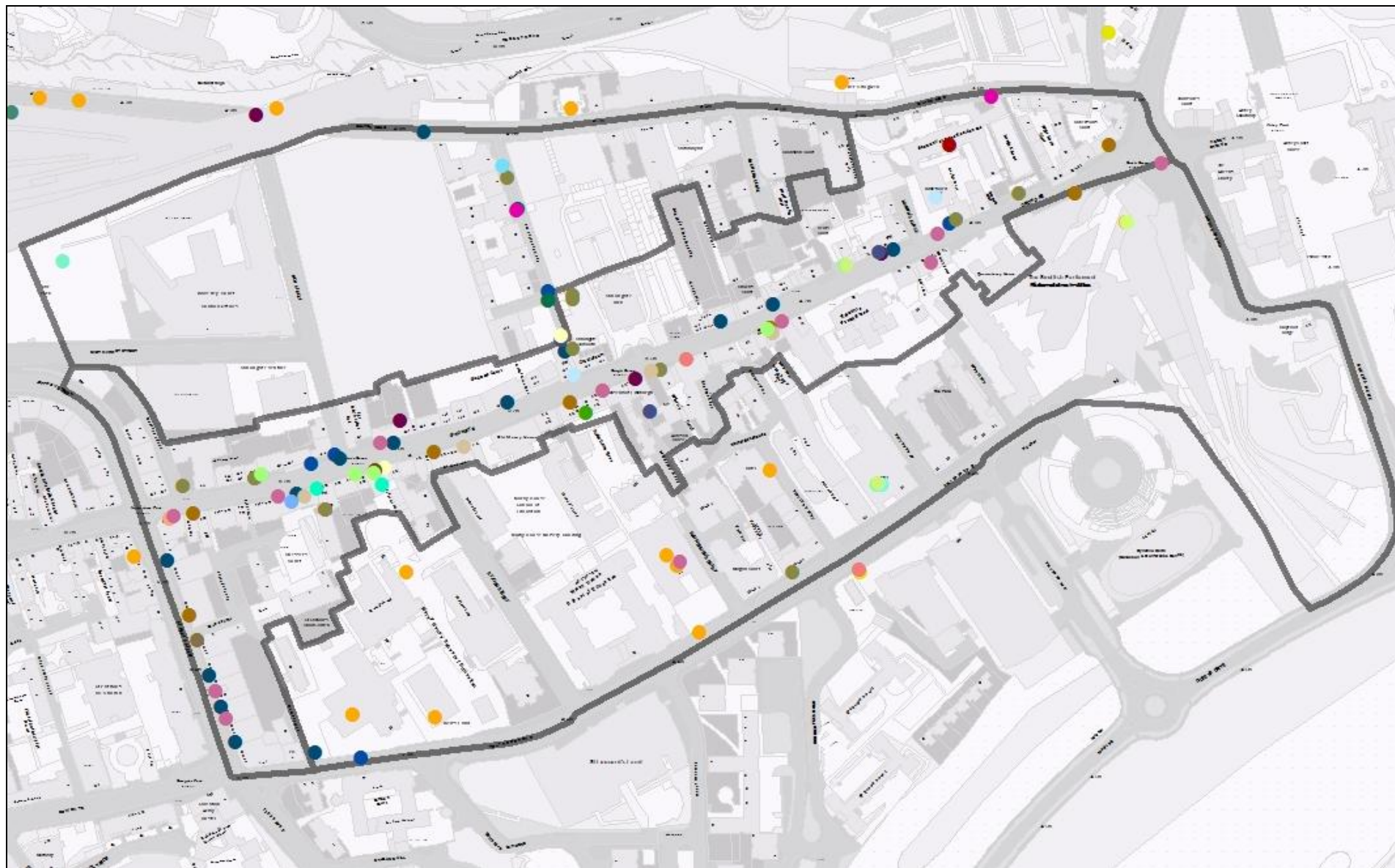


Figure 292: Distribution of industry types: Post Office Directory 1876-7 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Ceramics	4	Pipe maker; Tobacco pipe manufacturers
● Chemicals/Public Utilities: Gas	1	Plumber/gas fitter
● Chemicals: Glassmaking	2	Glass engraver; Glassmaker
● Chemicals: Production	3	Chemical manufacturers
● Clothing Manufacture	5	Dressmaker; Glover/hosier; Hat manufacturers
● Engineering: Agricultural	1	Agricultural implement maker
● Engineering: Automotive	1	Van and lorry builder
● Engineering: Clock Making	1	Clock maker
● Engineering: General	2	Scale and beam makers; Gas engineers/ brass founders/meter manufacturers
● Engineering: Machine Making	3	Engine and machine makers; Iron founder/ engine maker/machine maker
● Food and Drink: Baking	16	Baker; Baker/confectioner; Biscuit manufacturer
● Food and Drink: Brewing	15	Brewer; Brewer/maltster; Brewery
● Food and Drink: Confectionery	11	Confectioner
● Food and Drink: Fish Processing	2	Fishmonger/curer
● Food and Drink: Meat Processing	7	Butcher
● Food and Drink: Preserves	1	Preserved provision manufacturers
● Food and Drink: Soft Drinks	2	Aerated water manufacturer; Sodas water manufacturer
● Leatherworking: Processing	1	Tanner and currier
● Leatherworking: Shoemaking	11	Boot and shoemaker; Shoeheel and toeplate manufacturer
● Metalworking	1	Sawmaker
● Metalworking: Blacksmithing	3	Ironmonger/smith; Smith
● Metalworking: Non Ferrous	1	Plumber/gasfitter/brass founder
● Metalworking: Typefoundry	1	Type founder
● Printing and Publishing	3	Bookbinders; Engravers and lithographic printers; Printers and stationer
● Stoneworking	4	Slater
● Textiles	2	Basketmaker
● Woodworking	4	Joiner/carpenter; Machine cork manufacturers; Joiners; Turner; Undertaker
● Woodworking: Cabinetmaking	2	Cabinet maker
● Woodworking: Coopering	2	Cooper
● Woodworking: Cork	1	Cork merchant
	113	

The Edinburgh and Leith Post Office Directory 1876-7 and the Ordnance Survey 2nd Edition 1:1056 map of 1877 both show a pattern of a change in the appearance of what we would consider to be 'non-vital' product provision. Traditional trades or industries such as brewing, shoemaking, baking (still small-scale but numerous), metalworking, town gas production, brassfounding and blacksmithing now sit alongside the production of confectionery (eleven entries, mostly in the Canongate main street and evenly distributed) and aerated and soda water manufacturers (two entries, on the Canongate main street). The latter was possibly seen as a bulwark against alcohol consumption (by 1831, 44,000 Scots had taken a pledge against

drinking alcoholic beverages), or sold as a mixer for alcoholic drinks. Aerated water manufactories would have found a local ready supply of carbon dioxide, as it was a by-product of the brewing process.¹⁵

The chemical industries in the Canongate still concentrate on the Holyrood Glass Works, South Back of Canongate and the New Street gasworks. John Ford's Holyrood Flint Glassworks appears to have expanded a little since 1852 with the addition of a building to the east. Flint glass was a type of lead crystal with a high refractive index and great purity. By 1877 the site has expanded somewhat. Bremner states that the nucleus of the buildings had been built by 'the present proprietor's granduncle' in around 1800 (first mentioned in the Post Office Directories in 1811-12).¹⁶ He also says that there were two furnaces (one was depicted on James Kirkwood & Sons' map of 1821) and 22 'pots' – the vessels in which the raw materials were melted together to create the 'metal' which, once processed, produced high quality glass.¹⁷

The New Street gasworks has extended east by this date, incorporating the site of the former Canongate Foundry in Tolbooth Wynd, now occupied by the 'Coal Shed', one of several components of the gasworks which are named on the map. The smaller coal shed which appears on the Ordnance Survey 1st Edition 1:1056 map of 1852 has been removed and gas holders built in the north-west corner of the site. This extension also subsumed the Magdalene Asylum as well as the Tobacco Pipe Manufactory at Little Jack's Close, due to the extension of one of the Lime Houses (lime being used to purify the town gas). The original retort house or 'Fire Department' outline has been lost on the map either because it has been subsumed or rebuilt.

The Edinburgh and Leith Post Office Directory for 1876-7 lists 113 instances of product making (excluding seamstresses/dressmakers). Thirteen brewers or breweries are noted (see table below), and when compared to the preceding Directory entries from 1819-20 and 1853-4, a consistency of ownership and location begins to emerge. The location consistency would be due to the high capital cost of setting up a town brewery, the paramount dependency being a good, clean water supply – the water dictated the type and quality of the beer brewed – and the availability of land for building in a densely populated 'medieval' city. The consistency in ownership – the same names appearing over time (e.g. Dryborough/Dryburgh and Younger) – suggests that there was money to be made in providing the thirsty folk of Edinburgh with a safe alternative to 'drinking the water' and a growth in brewing 'dynasties'.

Brewers/breweries listed in the **Edinburgh and Leith Post Office Directory of 1876-7***

Company	Brewery Name	Location
Aitchison, J & Co	[Canongate Brewery]	85 South Back of Canongate
Bernard, T & J	Edinburgh Brewery	North Back Canongate, west end
Blair, Charles & Co	Craigwell Brewery	26 North Back Canongate
Carmichael, T	?	41 North Back Canongate
Dryborough & Co	Dryborough's Brewery	67 North Back Canongate
Edinburgh & Leith Brewing Company	Edinburgh & Leith Brewery	212 Canongate /23 South Back of Canongate
Morison, J & J and Thompson	Commercial Brewery	160 Canongate/43 South Back of Canongate
Moyes, Robert	Reid's Close Brewery (formerly rebuilt Berwick's Brewery after 1858 until 1870 when Moyes acquired it)	11 South Back of Canongate/Gentle's Close
Muir, James & Son	Calton Hill Brewery	28 North Back Canongate
Simpson, James & Son	St Mary's Brewery	19 South Back of Canongate

¹⁵ https://en.wikipedia.org/wiki/Soft_drink [Accessed 01/02/2016]

¹⁶ Bremner, D, 1868, *The Industries of Scotland: their rise, progress and present condition*, Edinburgh, p 377 [Online] Available from: <https://archive.org/details/industriesscotl00bremgoog> [Accessed 01/02/2016]

¹⁷ http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-457-1/dissemination/pdf/vol09/vol09_04/09_04_102_109.pdf [Accessed 01/02/2016]

Steel, Coulson & Co	Craigend Brewery	41 North Back of Canongate
Turner, Robert	?	22 South Back of Canongate
Younger, W & Co	Holyrood Brewery (former Berwick's Brewery, Gentle's Close)	27 South Back of Canongate
Younger, W & Co	The Abbey Brewery	South Back of Canongate/Horse Wynd

*See also <http://www.archives.gla.ac.uk/sba/sbacolls/default.html#collectionpolicy>. Retrieved: 2 December 2014

Metal industries are represented by the usual blacksmith work and non-ferrous work such as brassfounding and type foundries. Until the 1960s Edinburgh was the printing and publishing centre of Scotland and second only to London as a centre of book production.¹⁸ According to Bremner, half of the 10,000 people employed in the printing industry in Scotland were in Edinburgh.¹⁹ The Marr Typefounding Company was at 29 New Street in 1875, moving to Whitefoord House, 53 Canongate in 1876, having taken over Whitefoord House from D Sinclair & Sons. The process of type founding involved four stages: punch cutting; matrice making (brass moulds); casting; and dressing the type. It was a drawn out process of casting individual letters (or sorts) used in hot metal typesetting. In the 1880s, the introduction of the Linotype and Monotype mechanical typesetting machines radically changed this branch of the printing industry.²⁰

The leather processing sites in Gullan's and Boyd's Closes and St Mary's Street area had undergone some changes since the Ordnance Survey 1st Edition 1:1056 map of 1852. The re-aligning of St Mary's Wynd, demolition of the tenements, and the removal of the tannery directly behind these, meant that Boyd's Close was removed, along with Bell's Close. The alignment of Gullan's Close and Gibb's Close survived with some amendment. The surviving tannery on the west side of Gullan's Close was extended or moved to the east side of the close, with the original tan pits now occupied by a building that is referred to on the Ordnance Survey 3rd Edition 1:1056 map of 1894 as 'St Mary's Corn Mill'. The 1876-7 Post Office Directory does mention a 'H[ugh] Brown, tanner, currier and leather merchant' at 30 St Mary's Street.²¹ The building at the corner of Boyd's Entry has a sculpture of a bull above the doorway, probably indicating that it had links to leather processing. Presumably this was the main office for the tannery in Gullan's Close.

The brass foundry named and depicted on the Ordnance Survey 2nd Edition 1:1056 map of 1877, stretching from 90 Canongate (opposite Reid's Court) south to South Back of Canongate, has grown and absorbed Milton House. The outline of Milton House, the former home of Andrew Fletcher, Lord Milton (1692-1766), built in 1755-8 by John Adam (1721-92), is shown within the brass foundry complex.

¹⁸ <http://www.edinburghcityofprint.org/> [Accessed 01/02/2016]

¹⁹ Bremner, D, 1868, *The Industries of Scotland: their rise, progress and present condition*, Edinburgh, p 502 [Online] Available from: <https://archive.org/details/industriesscotl00bremgoog> [Accessed 01/02/2016]

²⁰ <https://en.wikipedia.org/wiki/Typesetting> [Accessed 01/02/2016]

²¹ *The Post Office Annual Directory, 1876-7*, Edinburgh, p 24

A.6:
Post Office Directory 1893-4
and
Ordnance Survey 3rd Edition 1:1056 map, 1894



Figure 293: Ordnance Survey 3rd Edition 1:1056 map, 1894 (taken from Georeferenced maps at www.maps.nls.uk. Reproduced with the permission of the National Library of Scotland)

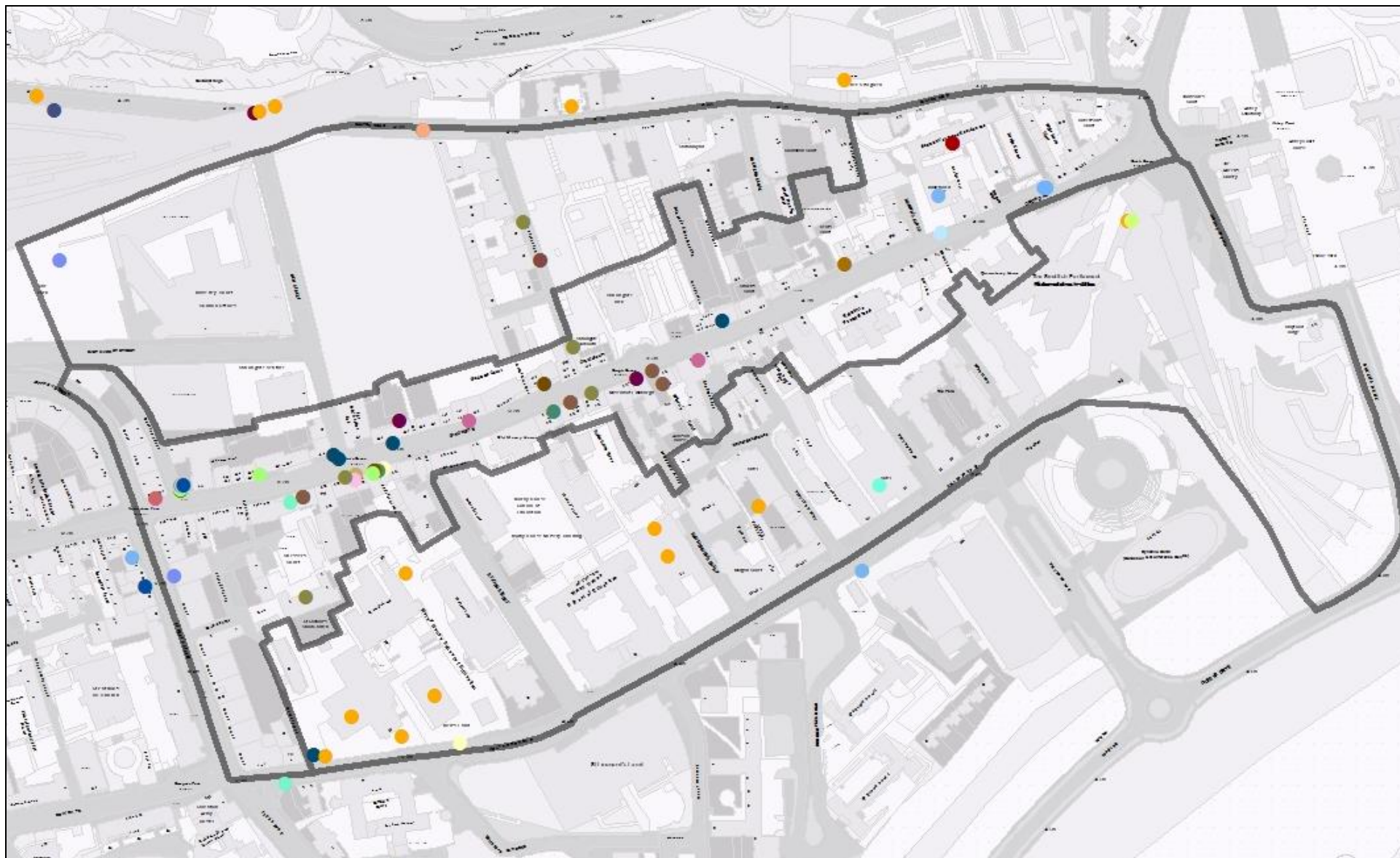


Figure 294: Distribution of industry types: Post Office Directory 1893-4 (See over for key to industry types)

© Copyright and database right 2016 Ordnance Survey licence number 100057073

KEY

Generic Type	No. Of Instances	Activities Included
● Building Construction	6	Plasterer; Slater; Bricklayer/furnace builder
● Ceramics	3	Pipemaker
● Chemicals: Glassmaking	1	Glassmaker
● Chemicals: Production	1	Chemical manufacturer
● Clothing Manufacture	3	Tailor (woollen); Dressmaker
● Engineering: Automotive	2	Van and lorry builder
● Engineering: General	2	Plumber/gas fitter/brass founder
● Engineering: Sanitation	1	Sanitary engineer
● Food and Drink	1	Dry salter
● Food and Drink: Aerated Water	3	Aerated water manufacturer
● Food and Drink: Baking	6	Baker
● Food and Drink: Brewing	16	Brewer; Maltster
● Food and Drink: Confectionery	2	Confectioner
● Food and Drink: Fish Processing	1	Fishmonger/curer
● Food and Drink: Meat Processing	2	Butcher
● Food and Drink: Preserves	1	Pickle and sauce manufacturer
● Leatherworking: Shoemaking	5	Boot and shoemaker
● Metalworking	1	Shoe heel and toeplate manufacturer
● Metalworking: Blacksmithing	1	Smith and farrier
● Metalworking: Iron	3	Ironmonger/smith; Scale and beam maker; Smith
● Metalworking: Non Ferrous	2	Tinplate maker; Tinsmith
● Metalworking: Typefoundry	2	Type founder
● Retail: Food	1	Wholesale provisions merchants
● Retail: Pharmaceuticals	1	Pharmaceutical
● Retail: Textiles	1	Draper/silk mercer
● Retail: Wood	1	Wood merchants
● Textiles	2	Rag dealer; basket maker
● Trade: Painting and Decorating	1	Paper hanger/glazier/house painter
● Woodworking	6	Joiner/carpenter; Undertaker; Turner; Joiner
● Woodworking: Coopering	2	Cooper
● Woodworking: Cork	2	Cork merchants
	82	

The **Edinburgh and Leith Post Office Directory 1893-4** and the **Ordnance Survey 3rd Edition 1:1056 map of 1894**, both list 82 separate entries under the generic types described above. There are a number of changes such as a drop in bakers, cabinetmaking, coachbuilding and the appearance of automotive engineering (which may be just another name for the term 'machine making' appearing in earlier directories) and in the number of confectioners. The two 'confectioners' listed – David Innes at 128 Canongate, and Andrew Chapman at 197 Canongate²² – did not appear in the 1876-7 Post Office Directory. The aerated water manufacturers (three are listed in 1893-4) include Duncan, Flockhart & Co at 104-106 South Back of Canongate.²³

The chemical industries in the Canongate still concentrate on the Holyrood Flint Glassworks on South Back of Canongate, and the New Street gasworks. 'Ford, John & Co, flint glass manufacturers to the Queen,

²² *The Post Office Annual Directory, 1893-4*, Edinburgh, pp 515, 148

²³ *Ibid*, p 85

Holyrood glassworks, 79 South Back of Canongate²⁴ appears to have expanded a little since 1876, with Bull's Close realigned, and some buildings presumably demolished when the adjacent Holyrood Brewery was expanded in the Bull's Close area.

The New Street gasworks has undergone some changes since the Ordnance Survey 2nd Edition 1:1056 map of 1877. Two of the three gasholders in the north-west corner have been removed, along with the smithy, the office to the south and the Tar House. The Coal Shed appears to have been rebuilt, though it is unclear if it is still operating as a coal shed as the map does not label individual areas within the gasworks site at this time.

The former formal garden area to the south of the St Magdalene's Asylum (see Ordnance Survey 1st Edition 1:1056 map of 1852) has been completely infilled (it still appeared as open space on the Ordnance Survey 2nd Edition 1:1056 map of 1877). The retort house or 'Fire Department' outline and large Coal Shed running up to Tolbooth Wynd depicted on both earlier Ordnance Survey maps maintain their footprint.

The Edinburgh and Leith Post Office Directory 1893-4 lists 82 instances of product making (excluding seamstresses/dressmakers). Sixteen brewers or breweries are noted (see table below), and when compared to the preceding Directory entries of 1876-7, the companies and breweries are static, although the Holyrood Brewery has expanded during this time. The consistency of ownership and location is again evident.

Brewers/breweries listed in the **Edinburgh and Leith Post Office Directory of 1893-4***

Company	Brewery Name	Location
Aitchison, J & Co	[Canongate Brewery]	21 South Back of Canongate
Bernard, T & J	Edinburgh Brewery	North Back Canongate, west end
Blair, Charles & Co	Craigwell Brewery	26 North Back Canongate
Carmichael, T	?	41 North Back Canongate
Dryborough & Co	Dryborough's Brewery	North Back Canongate
Edinburgh & Leith Brewing Company	Edinburgh & Leith Brewery	212 Canongate /23 South Back of Canongate
Morison, J and J	Commercial Brewery	51 South Back of Canongate
Moyes, Robert	Reid's Close Brewery (formerly rebuilt Berwick's Brewery after 1858 until 1870 when Moyes acquired it)	11 South Back of Canongate/Gentle's Close
Muir, James & Son	Calton Hill Brewery	28 North Back Canongate
Simpson, James & Son	St Mary's Brewery	19 South Back of Canongate
Steel, Coulson & Co	Craigend Brewery	41 North Back of Canongate
Turner, Robert	?	22 South Back of Canongate
Younger, W & Co	Holyrood Brewery (former Berwick's Brewery, Gentle's Close)	79 South Back of Canongate
Younger, W & Co	The Abbey Brewery	South Back of Canongate

*See also <http://www.archives.gla.ac.uk/sba/sbacolls/default.html#collectionpolicy>. Retrieved: 2 December 2014

Metal industries are still represented by the usual blacksmith work and non-ferrous work such as brass founding and type founders. However, the brass foundry named and depicted on the Ordnance Survey 2nd Edition 1:1056 map of 1877, and stretching from 90 Canongate (opposite Reid's Court) to South Back of Canongate, has been demolished. This has been replaced by Milton House Public School and the extension of the Holyrood Brewery to the south.

²⁴ *The Post Office Annual Directory, 1893-4*, Edinburgh, p 101