



**ARO24: Jam jars, lids and ginger beer bottles:
stoneware from the Caledonian Pottery,
Rutherglen, South Lanarkshire**

by Bob Will

with contributions from Warren Bailie and Kevin Mooney

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Contents

Introduction	5
Site Location	5
Archaeological Background	5
Post-excavation Strategy	5
Methodology	6
Results	6
The Artefacts	7
Pottery	8
Kiln Furniture	13
Clay Tobacco Pipes	13
Glass	14
Miscellaneous	14
Discussion	14
Acknowledgements	15
Bibliography	15

List of Figures

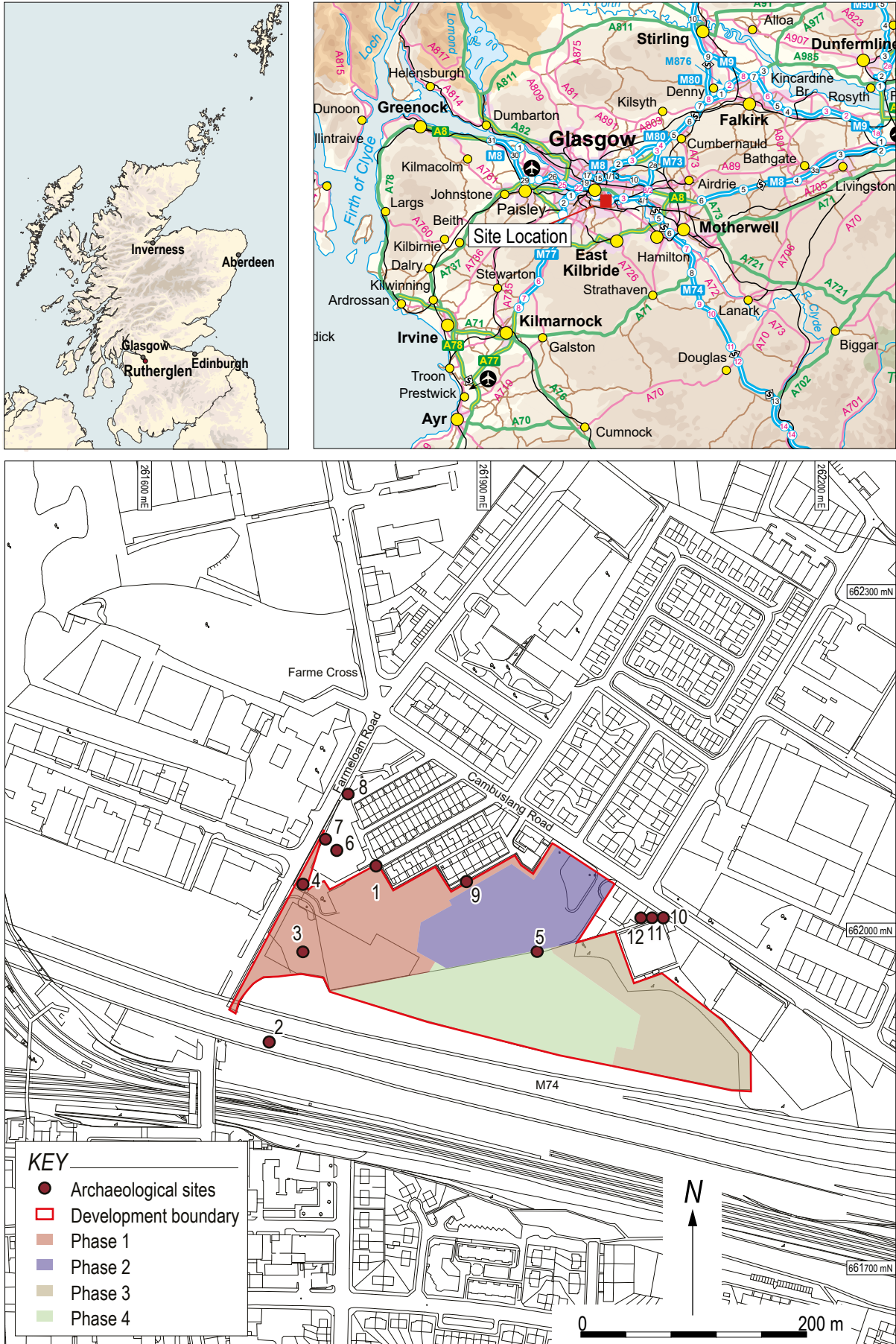
Figure 1: Site location	4
Figure 2: Plan showing watching brief phases	6
Figure 3: East-facing section of bank	7

List of Plates

Plate 1: East facing section showing some of the pottery dump layers	7
Plate 2: The range of stoneware bottles and jars recovered	8
Plate 3: Examples of ginger beer and other beverage bottles	9
Plate 4: Teapot with intact spout	9
Plate 5: Base of Hartley jar with a lighthouse	10
Plate 6: G&C Moore bottle	10
Plate 7: Springfield Bottling Store bottle	10
Plate 8: John Mackay & Co. bottle	11
Plate 9: The range of lids recovered	12
Plate 10: Saftey glasses	14

List of Tables

Table 1: Range and type of artefacts recovered	8
Table 2: Range of pottery vessels recovered	9
Table 3: Glass Catalogue	14



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Figure 1: Site location.

Introduction

MacLay Civil Engineering and John Paul Construction on behalf of Clyde Gateway commissioned GUARD Archaeology Ltd to undertake a final period of archaeological monitoring within the development of the Rutherglen Low Carbon Zone, South Lanarkshire (Figure 1). Previous excavations had taken place between September 2013 and October 2014 in advance of the construction of hybrid industrial and office spaces, and associated infrastructure, sited adjacent to the M74 motorway (Allan 2015, and Allan and Bailie 2015). During the course of the watching brief a sequence of deposits from the industrial use of the area was uncovered. The stratigraphy through a dump of ceramic and industrial debris from the original site of the Caledonian Pottery was recorded. An assemblage of stoneware vessels recovered from the deposits was subsequently analysed and forms the results of this publication.

Site Location

The area of proposed development lay in Rutherglen on the south side of Glasgow (NGR: NS 620 619) and covered a total area of c. 5 hectares between 11 and 14 metres OD. The derelict and overgrown site was bordered by Farmeloan Road (A749) to the west, by Cambuslang Road (A724) to the east, by residential properties to the north and by the M74 to the south. The drift geology across the site consisted of alluvium of clay, silt, sand and gravel, while the solid geology comprises Scottish Upper Coal Measures (British Geological Survey 2017).

Archaeological Background

A review of desk-based sources undertaken in advance of earlier phases of fieldwork (Rennie 2013) revealed 12 known cultural heritage sites within the immediate area.

- 1 - a visible boundary stone,
- 2 - the Caledonian Pottery,
- 3 - Gooseberry Hall,
- 4 - demolished buildings,
- 5 - unknown and inaccessible,
- 6 - demolished terrace houses,
- 7 - demolished buildings,
- 8 - a visible boundary stone,

- 9 - a drain or cists,
- 10, 11 and 12 - boundary stones.

Five of these lay within the extent of the proposed development, seven were within areas designated for possible future development, and one was immediately adjacent to the development area (Figure 1).

Only two of the previously recorded sites were visible.

The Caledonian Pottery was established in 1800 in the Garngadhill area of north Glasgow, but was first relocated in Rutherglen in 1870 (Jarrett et al 2015). The 1870s and 1880s saw the number of *pothouses* (potteries) peak at 16 in Glasgow, but numbers decreased sharply until the 1950s and 1960s when there were less than five. The buildings associated with the Caledonian Pottery were demolished in around c. 1930 and the later Caledonian Works was closed in the 1960s. The site of the pottery lies below the M74 motorway extension. Nothing now remains of Gooseberry Hall or its related buildings, although the driveway to the house was still extant, and appeared to be used for car parking. The buildings on the east side of Farmeloan Road had also been demolished with the area landscaped. The terraced houses at New Farme Rows had similarly been demolished, and the area subsequently landscaped.

A large spoil-heap, presumably from either the construction of the M74 motorway extension or from the archaeological excavation of Caledonian Pottery, lay c. 40 m south-east of the houses on Millar Terrace.

Post-excavation Strategy

Following completion of the machine-excavations and watching briefs, the post-excavation comprised the final stage of the archaeological works. This included specialist finds analyses, research, archiving of the site and finds analysis records, publication and finds disposal.

The specialist analysis of the material culture evidence from the archaeological works significantly contributes to the current understanding of the Caledonian Pottery and the influence and reach of its market in Scotland and further afield. This analysis portrays Glasgow's role in the late nineteenth/early twentieth century pottery manufacture across Scotland, Britain, Ireland and the world.

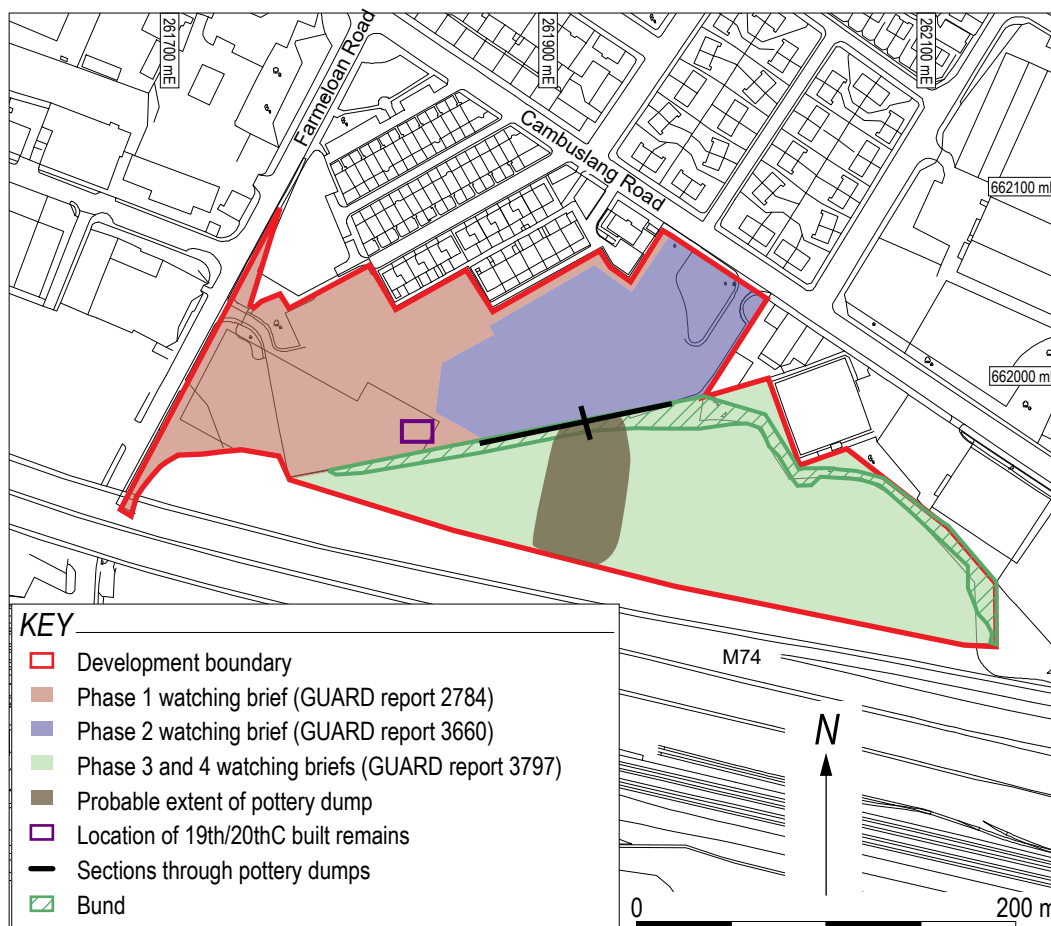


Figure 2: Plan showing watching brief phases.

Methodology

The programme of archaeological works involved archaeological monitoring of all ground breaking activity associated with the development. This included the removal of concrete caps, overburden and topsoil by machine-excavation under the close supervision of an archaeologist. During the course of the excavations, only the Phase 1 area revealed any in-situ built remains (Figure 2). No in situ significant archaeological features or visible remains were encountered during phases 2 to 4.

Monitoring of excavations through the existing bund and pottery spoil heaps also took place. Due to the nature and scale of the deposits, these excavations were also undertaken by machine supervised by an archaeologist. During the excavations, a running section was recorded allowing the archaeologist to note the stratigraphy across a series of dumped layers within the spoil heap.

The construction works did not directly impact on the surviving boundary stones associated with

the Burgh of Rutherglen. All work was conducted to comply with WoSAS (West of Scotland Archaeology Service) standard conditions for archaeological fieldwork and with current the Chartered Institute for Archaeologists (CIfA) standards and guidance and in accordance with CIfA *‘Standard and guidance for the collection, documentation, conservation and research of archaeological materials’* (2014). GUARD Archaeology is a Registered Organisation with CIfA.

Results

The watching brief for Phase 1, undertaken for Robertson Construction, revealed that the site comprised a series of layers of made up ground in excess of 1 m across the site. Two sections of late nineteenth/early twentieth century wall foundations were uncovered on in the south-east corner of the site proposed for car-parking, 0.75 m below the present ground surface (Figure 2).

No deposits of archaeological interest were uncovered during Phase 2.

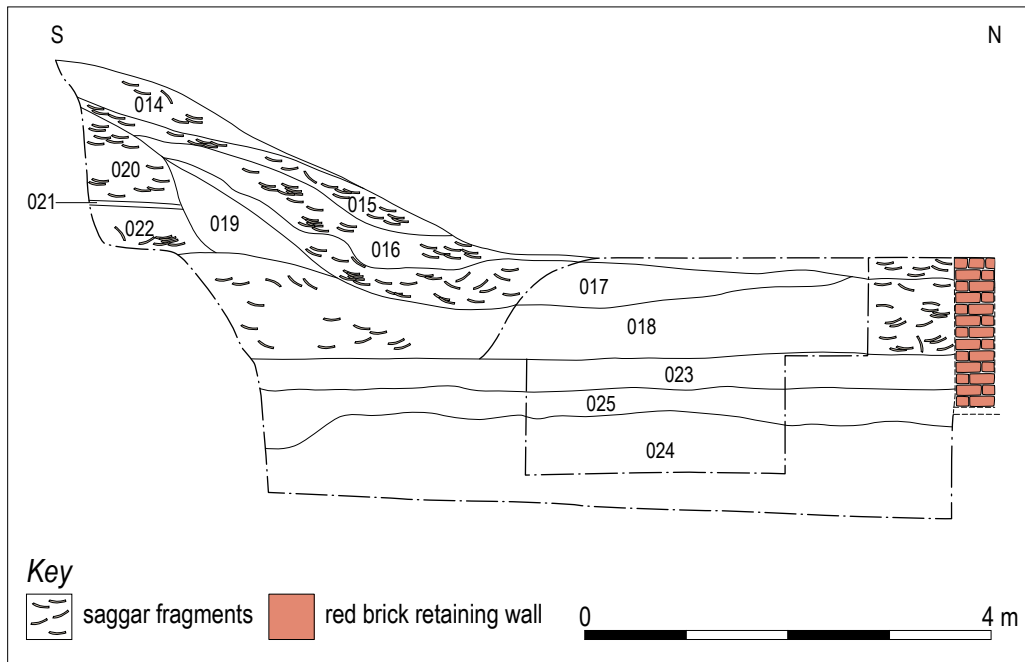


Figure 3: East-facing section of bank.

During Phase 3/4 works a pottery dump was encountered during the reduction of the bund in preparation for a new access road in this area (Figure 2). In order to record the layers of dumped material within the bund. A working section was recorded as the material was reduced by machine (Figure 3, Plate 1). This enabled the material to be more accurately attributed to dumped layers rather than being recovered from arbitrary spits. The dumped layers were loosely compacted and were prone to subsidence, and in some cases a rapid recording of any stratigraphic layers was required. The watching brief was limited to the areas proposed for construction and by the proposed formation levels. The pottery dumped layers extended to the south and south-west beyond the area monitored.



Plate 1: East-facing section showing some of the pottery dumped layers.

During the reduction of the bund there were thousands of broken vessels of various types with tens of thousands of sherds present. Following consultation with WoSAS it was agreed that the best examples of vessels would be recovered for potential further analysis. The pottery sample and other artefacts forms the basis of the following analysis.

The Artefacts

By Bob Will (with contributions from Warren Bailie and Kevin Mooney)

During the investigations 175 items were recovered and including 139 ceramic vessels or fragments, along with clay tobacco pipes and glass bottles. These artefacts are a mixture of ceramics that were made at the local Caledonian Pottery and other items that were lost or dumped at the site (Plate 2). Apart from the pottery, other items associated with the factory included clay moulds, kiln furniture, saggars and pottery wasters. The material covers a wide range of pottery types for both domestic and commercial use and includes examples from local businesses and pieces for export further afield. The glass bottles are mainly milk bottles with the names of local dairies.



Plate 2: The range of stoneware bottles and jars recovered.

Table 1: Range and type of artefacts recovered.

Material	number	Weight (g)	comments
Pottery	139	67,890	Mainly industrial stoneware vessels
Kiln furniture & waste	16	9,382	Includes spacers, moulds and saggars used in pottery manufacture
Clay tobacco pipes	5	46	Includes bowl fragments
Glass	14	6,436	Bottles and jars including milk bottles
Miscellaneous	1	62	Safety glasses
	175	83,816	-

Pottery

The site of the Caledonian Pottery and the spoil heaps had already been the subject of large scale archaeological investigations as part of the M74 project (Nevel 2016). The sample vessels retained during the 2013 to 2014 interventions tended to be the more complete examples, or ones with manufacturer's names or company names. In the pottery waste heaps that were investigated, many of the vessels are cracked, broken or warped, and represent vessels that were damaged during the manufacturing process or firing phase of production, and are not the finished products to be sold on.

The Caledonian Pottery

The pottery was first established in 1800 at Garngadhill, Glasgow, but in 1870 the firm moved to a larger site on the east side of Farmeloan Road in Rutherglen. At that time the factory was under the joint ownership of William F Murray and John Macintyre, and traded under the company name of Murray & Co. At the time of the move

to Rutherglen, the factory was producing various stoneware items and earthenware, including a range of embossed leaf-patterned tableware in translucent green glaze, similar to that produced by Wedgwood and other Staffordshire firms. Advertisements of this period list the products as teapots, caneware, bottles, jugs, jam pots etc, of every variety of Rockingham, cane, Bristol and Saltglaze ware for home use and export; chemical wares of endless variety including anti-acid pipes and connection taps etc. for manufacturing chemists; and filters. The company had agents for Scotland, England and Ireland, and it also made teapots, spittoons, bakers' bowls, fine Rockingham teapots, pressure jars, jelly cans and other goods, for an extensive export business to America and New Zealand. In these areas, the 'Ru-glen' (i.e. Rutherglen) Rockingham brown glazed earthenware teapot was well known.

It appears that over time, the production of finer wares decreased and that of stoneware bottles, jam jars, spirit jars and hot water bottles increased. Despite attempts at innovative production techniques, the firm went into liquidation in 1897, and by the following year had been taken over by the Liverpool jam manufacturer W P Hartley. While ensuring its own supply of jam jars, the pottery largely continued to produce the same range of products as before, but probably in smaller quantities. The pottery was wound up in 1929, and by the time of the fourth edition Ordnance Survey map (c. 1933-35) the site had been taken over by A G MacFadden and Co, steel merchants who had demolished the pottery and erected new premises called the Caledonian Works.

Several of the pots or sherds have the maker's mark of 'Caledonian Rutherglen Pottery Co Ltd' or just 'Caledonian Rutherglen', often with a number separating the wording. The number probably relates to the type or size of the vessel, as often the same shape of vessel was made in different sizes. Several of the vessels had the mark 'Murray and Co', which relates to the period when the factory was owned by William F Murray and John Macintyre. Some of the stoneware bottles also had the Murray mark with either a '6' or a '12', or 'Caledonian 4 Rutherglen', Caledonian 3, 'Caledonian Rutherglen 5' (Plate 3), as well as other numbers.



Plate 3: Examples of ginger beer and other beverage bottles

Table 2: Range of pottery vessels recovered.

Vessels	number	comments
Jars	36	Complete jars in different sizes and fragments
Bottles	42	Most are complete or survive as large fragments, mainly ginger beer type bottles
Flagons	14	Large storage vessels with rounded shoulders and a handle attached below the rim, often used for whiskey and other liquids
Teapots	7	Two teapot bodies and five lids including one that is unfired
Cream jars	14	Mainly from Stranraer/Wigtownshire
Ink bottles	4	Identified by a small lip or spout
Acid jar lids	7	Identified by maker's name on the top
Threaded lids	8	Three with Anchor design
Hot water bottle	2	One nearly complete and one fragment
Large storage jar	2	Both complete, apart from broken handles, although the rim on one of them is warped from the kiln
Lids from large storage jars	3	Flat lids with machine decoration (no screw thread)

Although quite a wide range of vessels were recovered the main types were 'jam jars' and 'ginger beer' bottles. The bottles were of similar size and the names of a number of different companies are represented selling soft drinks and beer.

Below is a brief summary of a collection of the most intact vessels and branded items.

Teapots

Two teapot bodies and five lids were recovered. The bodies were very similar, with small rounded bodies with scars where handles and spouts would have been attached and on one example

the spout survived (Plate 4). The bodies and four of the lids were glazed with a full brown glaze with vertical bands typical of 'rustic' style teapots that were mass produced by the Caledonian and other factories in the late nineteenth century. The remaining lid was unglazed and the handle had broken off, and it represents an earlier phase in pottery production before the final glaze firing. This lid is much larger and heavier than the others and may be from a large storage jar or similar, but it does have the vent or hole on the upper surface as glazed teapots lids.



Plate 4: Teapot with intact spout.

W P Hartley Jars

Eleven intact 'Hartleys' jars were recovered mainly from the upper layers of the spoil heap deposits. These stoneware jars are cream in colour and come in two sizes, the larger measures 155 mm in height with a diameter of 100 mm, while the smaller and most common size is 100 mm by 78 mm. There are slight variations in the size of the jars, and this may reflect differences in the clay and firing, as all the pots would have shrunk slightly when they were dried before firing. They are decorated with vertical lines or fluting sometimes in panels spaced 25 mm apart. A small groove located around the top of the pot was presumably to attach a lid, possibly of paper or fabric. A number of the examples recovered from the excavations displayed some irregularities, having been warped during the firing process. In addition, there was a large fragment of pottery waste that consisted of several pots that had collapsed and fused together in the kiln, and where two Hartley's makers marks were visible. Two different stamps or maker's marks were noted on the jars. The commonest one on the base of the pot bears the name 'W P HARTLEY LONDON & LIVERPOOL' with an image of a lighthouse (Plate 5), while the other, of which there was only one example, states 'NOT GENUINE UNLESS BEARING Wm P HARTLEY'S LABELS'.



Plate 5: Base of a Hartley jar with a lighthouse.

Sir William Pickles Hartley was born in 1846 in Colne, Lancashire and founded the Hartley's Jam company. He first started producing his own packaging for his produce in 1871, opening a preserve factory in Aintree, Liverpool in 1886 and later a factory in Bermondsey, London in 1902. The Caledonian Pottery was subsequently bought by W P Hartley in 1898 to provide packaging for the increasing demand for his products. The vast quantities of 'W P Hartley' earthenware pots noted from the upper layers significantly outnumbered all other types of earthenware material recovered from the upper dumped layers. This indicated that these products probably dominated production at the pottery before its closing in 1929.

G&C Moore, Ginger Beer

Two fragments of stoneware bottles were recovered bearing a black transfer print with the inscription 'G&C MOORE STONE GINGER BEER' (Plate 6), with 'SPRINGFIELD BOTTLING STORES BRIDGETON GLASGOW', (Plate 7), enclosing a small bird motif with 'Registered trade mark' and a warning, 'This bottle being our exclusive property anyone filling or vending it is liable to imprisonment'. This cream coloured bottle had a pink rim and collar, the bottle is 215 mm in height and 67 mm in diameter.

The company G & C Moore was an aerated water manufacturer and bottler, boasting up to eleven different soft drinks. They appear in the Post Office directories between the years 1888 to 1912, originally listed as 181 Mordaunt Street, Bridgeton, Glasgow, then expanding to 165 Mordaunt Street. In the 1930s G & C Moore was bought over by Joseph Dunn Bottlers Ltd and they continued in production using glass bottles until the 1970s and 1980s.



Plate 6: G&C Moore bottle.



Plate 7: Springfield Bottling Store bottle.

H Connell and Co, Ginger Beer

A stoneware bottle was recovered displaying the black transfer print 'H CONNELL & Co, OLD FASHIONED GINGER BEER, BRIDGETON GLASGOW'. This cream bottle with a brown top was 190 mm in height and had a brown transfer print. A glass bottle for this company was also recovered.

H Connell & Co were aerated water manufacturers listed in the Post Office Directory at 22 and 24 Graham Street, Bridgeton, and operated from there from 1899 until 1901. It appears that they then moved to 44 Mordaunt St, Bridgeton, where they operated from 1903 and 1928, and were possibly still operating up until the 1930s.

Baltic Bottling Store, Old Scotch Brewed Ginger Beer, Glasgow

Another ginger beer bottle was recovered with a black transfer label for 'Baltic Bottling Store, Old Scotch Brewed Ginger beer', with a stag's head as their trade mark. This company is listed in the directories as belonging to Mr J Morrison based at 48 Graham Street, Bridgeton where it operated from 1897 to 1901. The address of the company changed to Connell, Samuel & Co in 1902 and is listed at 24 Graham Street, Bridgeton. The manager remained Mr Joseph Morrison. It is likely that this is the same company as H Connel and Co listed at 44 Mordaunt Street, which appeared on the Post Office Directory in 1903.

John Mackay & Co's Ginger Beer

Another single bottle was recovered displaying the brown transfer print of 'JOHN MACKAY & Co's GLASGOW Celebrated Fermented Ginger Beer'. This cream ceramic bottle was not complete, as the top had broken off (Plate 8).



Plate 8: John Mackay & Co. bottle.

The firm of John Mackay & Co was originally a wholesale druggist and aerated water manufacturer based at 186 West Regents Street, Glasgow and was founded by John Mackay in 1881. The firm was listed in 1896 at 76 Lancefield Street, and celebrated themselves as the sole manufacturers of the celebrated 'Sparkling Kola'. The firm relocated to Edinburgh and was listed as a wholesale druggist, manufacturing chemist and aerated water manufacturer at 12 Canning Street, Edinburgh. In 1926 an Edinburgh based company T & H Smith bought over the company.

AG Barrs

Two 'Barrs Stone Ginger Beer' bottles were recovered along with the 'Caledonian 15 Rutherglen' stamp, and the inscription 'please replace stopper when empty. This bottle is the property of AG Barrs Glasgow'. Two glass bottles were also recovered in two different sizes. This company is still operating and selling soft drinks.

Reid Bro's Ginger Beer

A bottle that was larger than the rest was recovered with the 'Caledonian 12 Rutherglen' stamp, along with a partial transfer print for 'Ginger beer, Falkirk...'. This bottle probably belonged to Reid Brothers Chemist who were located in the Crown Springs Works in Falkirk. The brothers owned another aerated water bottling company based in Helensburgh.

Lane and Co Brewers Cork

One white bottle with a brown top had the inscription on the neck for Lane and Co, Brewers, Cork.

Maclays Oatmalt Stout

One bottle had the inscription 'Maclay's Oatmalt Stout', along with a 'Caledonian 12 Rutherglen' stamp and 'Bottled by the Globe Bottling Co, 25 Woodhead Street, Dunfermline', along with the warning that 'filling selling or vending this bottle is illegal'.

Buchanan's Bar, Govan

A broken white stoneware bottle had the name 'BUCHANANS WAV[ER]LY BAR, 96 & 98 Langland's Road, Govan'. The Waverley Bar was originally on Water Row in Govan but moved to Langland's Road around 1900, and had been owned by a Mrs Buchanan.

Galloway Creamery Co Ltd

Two intact cream jars were recovered with the transfer print for the Galloway Creamery Co Ltd. This creamery was founded in 1899 by a farmers' co-operative, which went into liquidation in 1920, and then it became known as the 'Galloway Creamery Ltd'. It was owned and operated under the 'Scottish Milk Marketing Board' until the 1960s when it was disbanded, and became part of the Caledonian Cheese Company, under the McClelland Group.

Dunragit Creamery

One complete cream jar was recovered with the name of the Dunragit Creamery. Thomas Clement started the first Farmers' Co-operative Creamery Association in Scotland in 1882 at Dunragit. The Dunragit Creamery (United Creameries Ltd) was set up in 1891, and was originally based in Tarvit Street in the village of Dunragit. This was the first private dairy manufacturing company in Scotland, and at its peak was a major employer in the area, and employed up to 300 people. It expanded in size, handling surplus milk across the area turning it into cheese, margarine and butter. United Creameries produced up to 50 tons of margarine per week, but also had a number of factories at Sorbie, Wigtonshire and Tarff, Kirkcubrightshire. The creamery was in use up until 1925 when it closed and was sold to Unilever Ltd. The site was subsequently bought by Nestle Ltd in 1940 and re-opened in 1941 for the production of condensed milk and powdered milk.

Wigtownshire Creamery

Nine complete cream jars were recovered with the transfer print for the Wigtownshire Creamery Co. The creamery was founded in 1888 at Seuchan Street and had its central factory at Stranraer. It also had branches at Sandhead and Drummole, Wigtonshire and at Ballymoney, now in Northern Ireland. They also had a creamery at Bladnoch, which belonged to the Scottish Cooperative Wholesale Society that produced butter and margarine for them.

Richard Smith Acid Makers

Two brown glazed stoneware lids were recovered relating to 'Richard Smith Acid Makers'. The larger of the two, 130 mm in diameter, displayed an ovoid stamp in its centre with the lettering 'RICHARD SMITH, ACID MAKER, GLASGOW'. The lid had a knurled pattern around the edge and is relatively plain on top. The second smaller lid was 118 mm in diameter and displayed a more elaborate stamp within its centre. A circular motif of an elephant with the words 'ACID MAKERS'. The wording 'RICHARD SMITH'S EXECUTORS LIMITED GLASGOW' appears around the edge of this motif. A more elaborate pattern was also visible on the surface and edge of the lid (Plate 9).

Richard Smith Acid Makers was a Glasgow based



Plate 9: The range of lids recovered.

Chemical Manufacturing Company. The firm was established originally in 1880 under the name 'Smith Brothers and Muurling' by Ernest and Wilfred Smith and Jan Reinhart Muurling at Millburn Chemical Works, Ayr Road, Hamilton with offices at 182 West Street, Glasgow. This company was subsequently dissolved in 1889 with the debts being taken on by 'Richard Smiths Ltd' again based at 182 West Street, Tradeston, Glasgow, with chemical works in Paisley and Glasgow.

Records show the proprietors for the Millburn chemical works in Hamilton as 'Smith Bro's and Muurling' in 1885, with this changing in 1895 to 'Richard Smiths Executors'. As a result, between 1889 and 1895, it appears the late Richard Smith's affairs were passed on to executors (*The Glasgow Herald, 19th August 1889*). It is likely that these two lids relate to two separate periods of the chemical companies life, one pre 1889 and one post 1889.

S.P Ghandhi and Sons, Acid Maker

Two lids were recovered bearing the 'S.P. GHANDHI & SONS BOMBAY' and 'GLASGOW ACID' text. These were similar to the previous acid jug lids with a brown glaze, however, they are significantly smaller in size at 78 mm in diameter. The central motif is an image of a triple masted sailing ship. Little is known at present about this company

Whisky or Spirit flagons

Several large fragments from whisky or spirit flagons were recovered, with the names of the companies or shops that the flagons were made for. They include several wine merchants from across Scotland and Ireland, and often include the address and town of the shop. For example:

'Wine Merchant, Academy St. Cork, Estd 1797',

a stamp with a clover leaf with the inscription 'George Norton, Monster China Store, Henry St. Dublin',

'James Sinclair & Co. Wine Merchants, Moffat', and

'Wine and Spirit, Aberdeen'.

Kiln Furniture

Kiln furniture covers a range of ceramic items used during the manufacture and firing of pottery vessels. While some of the pieces were bought in from specialist factories, often in Stoke on Trent, others were made on site and were simply pieces of clay rolled into the desired shape and size.

Mould

One fragment of a mould was recovered. Many of the vessels that were produced in an industrial scale pottery factory were made in moulds, either the whole vessel or parts of one, or handles or decorative features. The moulds were often made from plaster of paris which enabled elaborate patterns and designs to be cast. However, due to the softness of this material, it also meant that the moulds became worn through use, which resulted in the designs becoming blurred and they had to be replaced quite regularly. Often the moulds were made on site, and in some cases, were sold on to other factories.

A piece from Rutherglen is the upper section of a two part mould made from clay with a rough handle, and the inscription 'mould shop' on the upper surface. The mould is round with two circular grooves, each with a central ridge that still contains white clay from the item that was made. Unfortunately, it is difficult to determine what type of vessel was produced. The mould could have been for a separate rim that was attached to the body of a vessel, or for a decorative feature.

Stilts or spacers

These are three legged supports that were used to separate glazed wares during firing. The three legs are of equal length with sharp points at the end that are joined at the middle. The vessels to be fired are placed on to the points to minimise the area of contact. The five stilts from Rutherglen are in two sizes, the smaller has legs 35 mm in length and the larger has legs 40 mm

in length. The three larger stilts are also slightly different, in that two are thicker than the third.. The stilts were made of white clay and were often made by specialist manufacturers. This may explain the difference in thickness or it may be that they were used for larger or heavier vessels. Occasionally, the stilts have a number on them that relates to their size, and two of the larger Rutherglen examples have the number '8 1/2' and the smaller one has a number '7' on it.

Saggers

Three fragments from saggers were retained. These are large, usually oval-shaped containers that were made from locally sourced coarse fireclay fabrics. They were used in the kiln to protect the vessels that were being fired and could be stacked on top of each other to maximise space in the kiln. The three fragments that were recovered were from the base of the container that had broken pots stuck to its inside where they had collapsed or exploded in the kiln.

Rolled clay

Six pieces of rolled clay were recovered that may have been used as a temporary stand for vessels. While much of the kiln furniture was mass-produced, there was still a need for small pieces of clay to plug gaps or provide a stand or spacer between vessels.

Clay Tobacco Pipes

Two complete tobacco pipe bowls and three stem fragments were recovered during the investigations. Unfortunately, none are decorated or bear any names or maker's marks. Tobacco pipes were made in a number of factories in Glasgow and elsewhere in Scotland from the mid-sixteenth century until the early twentieth century. Tobacco pipes were made in large quantities with various designs and decorations that often reflected popular events of the day. Unfortunately, with out a maker's name or distinctive decoration it is very difficult to identify the maker, but given the size and shape of the bowls they probably date to the late nineteenth or early twentieth century. Interestingly, William Murray who set up the Caledonian Pottery also established a clay tobacco pipe factory in 1835, which was taken over by Thomas Davidson in 1862 that traded as Thomas Davidson and Co until 1911 (Gallagher and Price 1987).

Glass

Thirteen glass bottles, including carbonated drinks bottle, milk bottles, a rectangular medicine type bottle and one small meat paste type jar were recovered, and reflect mainly local or Scottish companies that were in operation in the early twentieth century (see Table 3 for their description).

Table 3: Glass Catalogue.

Catalogue number	Description
46	Light brown glass bottle with the inscription 'S. B. Ltd', 260 mm tall, 70 mm diameter.
52	Base of clear bottle with the inscription AG Barr bottle, 60 mm diameter.
54	Light green glass bottle with pinched neck and marble stopper. Inscription 'H. Connell & Co.', 220 mm tall, 63 mm diameter.
59	Light green glass bottle pinched at top for marble stopper but rim broken off, 'Robert Haldan', 192 mm tall, 62 mm diameter, same as SF 117
88	Small 'Shippams' meat paste type jar, clear glass, 40 mm diameter.
90	Clear milk bottle, 1 pint, 'SCWS' stamped bottle, 213 mm tall, 71 mm diameter.
91	Clear milk bottle, 1 pint, 'United Dairies Scotland' mark 'The Scottish Farmers', 211 mm tall, 76 mm diameter.
93	Small clear glass medicine type bottle, stamp on bottom '2 oz' 'c17', rectangular shape, 111 mm tall.
101	Complete clear bottle 'AC Barr & Co Glasgow' stamp on bottom, 270, mm tall, 74 mm diameter.
113	1 pint clear glass milk bottle 'Glasgow South Co-op Society Ltd' mark, stamp on bottom 'UGB', 213 mm tall, 75 mm diameter.
117	Light green glass with pinched neck for marble stopper, 'Haldane Brooks, Bridgeton, Registered design Robert Haldane', stamp on bottom '2887', 220 mm tall, 63 mm diameter.
118	1 pint clear glass milk bottle 'East Kilbride Dairy Farmers Ltd', stamp on bottom 'U379A, A2, ACW', 270 mm tall, 73 mm diameter.
119	1 pint clear glass milk bottle 'Milk Containers Ltd Glasgow' bottle not intact but all the pieces present

Miscellaneous

One pair of safety glasses were recovered, these had a wire frame and round lenses, one of which was cracked, and had guards made from wire mesh at the sides to protect the eyes (Plate 10).



Plate 10: Safety glasses.

Discussion

The ground works excavated a substantial section through one of the pottery dumps from the Caledonian Pottery that presently forms part of the bund along the southern edge of the site. The reduction of a 101 m section of the north edge of the embankment in spits of 400 mm revealed a sequence of ash, pottery dumps and kiln rake-out deposits. Intact and diagnostic fragments of pottery vessels were recovered from each spit to show the variety of wares supplied during the pottery's lifetime. Many of these were Hartley's jam jars, especially in the upper layers of the dump, and indeed the pottery was owned by J P Hartley from 1898 to its close in 1929. However, other pieces revealed a range of product types, industries and customers that were also supplied. Predominant amongst these were supplies to drinks companies, including ginger beer producers and wine merchants, and also the dairy industry.

The workings of the kilns were also identifiable due to the large volumes of saggar fragments that appeared in some of the bands within the dump, and additional pieces of kiln furniture such as ceramic spacers and clay rods that may have been used during the firing process. Layers of ash-rich material were identified as kiln rake-out events that cleared the built up debris and burnt material from inside the kilns after use. The full extent of this particular pottery spoil heap remains uncertain as it extends south and south-west below the large bund of material associated with the construction of the M74.

These works have identified a sequence of deposits relating to the use of the site as a dump for ceramic and other debris from the Caledonian Pottery relocated here in 1880 and up to its closing in 1929. Concrete and asphalt platforms/hard standing areas, and industrial waste are likely to

have originated from the subsequent Caledonian Works (steel), or a railway depot that stood on the site, and potentially from works associated with the construction of the M74. However, no in situ features or structures of archaeological significance were revealed. This monitoring work on the site of the Caledonian Pottery provided an opportunity to investigate the stratigraphy of the dumped areas in greater detail than was pursued on previous investigations. The catalogue and analysis of the artefacts presented here contributes to the existing knowledge of the Caledonian Pottery and has highlighted the extent of the international distribution networks that this pottery, and its contemporaries in Glasgow, were part of in the nineteenth and twentieth centuries.

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