EXCAVATIONS AT SEATON POTTERY, ABERDEEN 2002-3

INTRODUCTION

This is a draft report on excavations at the Seaton Pottery in August 2002 and 2003. The Pottery operated in the Seaton area of the City between the years 1868 and 1964. Its working life can be divided into three sections: the Gavin period (1868-1903), the Clarke & Smith phase (1903-4), and the Mills period (1905-1964). Map evidence includes the 1867 Ordnance Survey showing the Seaton brick and Tile Works in the plot to the west of where the Pottery was built in the following year (Ill 1), the 1901 and 1926 OS maps (Ill 2 and 3) showing no change to the layout of the buildings during these periods. Ill 5 shows the layout of the area at the time of the excavation. A number of photographs of the site survive including an aerial photograph taken in the 1950s by Aerofilms (Ill 6).

THE HISTORY

Gavin and Ritchie

The Pottery was founded by Thomas Gavin and James Ritchie. Gavin, a native of Lanarkshire, came to Aberdeen from the Glasgow area in the early 1850s. He was an experienced pottery thrower, but initially worked as a wine and spirit merchant at the New Bridge of Don. He built a tavern and coaching house beside his shop and in the course of construction, good-quality clay deposits were discovered, part of a seam used by the brick and tile industry since at least the middle of the 18th century. This seems to have awakened in Gavin a desire to utilise his skills as a potter (Evans 1981). Ritchie appears to have worked as a potter in Prestonpans, but little else is known about him.

The business quickly prospered, and within three years it was employing eight people. By the 1880s, it had become very much a family concern, with Ritchie, considerably the elder of the two partners, fading from the scene, and Gavin being joined in the business by two of his sons, Hugh and John.

The clay deposits on which the Pottery was built may have been utilised during the early years of production, but latterly they used clay from the Black Dog area. It is possible that the Seaton Brick & Tile Company had rights over the Seaton deposits (Evans 1981). The Black Dog clay had a fatty consistency and a low sand content compared with the more porous nature of the Seaton clay, and therefore had to be puddled to make it malleable.

There are no known marked pieces from the Gavin and Ritchie period, although an agate ware butter tub is inscribed ‘Mrs Gavin/1888’ and was made by John Gavin for his new bride, Isabella. It is still in the Gavin family.

Thomas Gavin died in 1899, and left Seaton Pottery in trust to be run by his two potter sons, Hugh and John, and two Aberdeen lawyers, Robert Leslie and Kenneth Simpson. It is possible that old Thomas Gavin, realising the economic plight of the Pottery, gave the lawyers part-ownership in return for an injection of financial aid, but this was unsuccessful. In less than a year the trustees had sold the Pottery to two local seedsmen, William Gibson and Alexander Hay, acting for the Aberdeen florists Ben Reid & Co. Then in the following year, 1900, the two seedsmen sold out to their parent company and in 1903 the Pottery closed.

Very little paperwork survives from this period. Publicity about this project brought to light a birth certificate for James Gavin of Dam-head, New Bridge of Old Machar, who was born on 21 December 1882 and whose father was registered as Hugh Gavin ‘Clay Potter’.

Clarke and Smith

In 1904, two experienced turners (potters who finished pieces on a wheel), Clarke and Smith, came to Aberdeen from Denby and took over the Pottery. It is not known how they found out about the Pottery but they opened an Art Pottery and advertised themselves as 'manufacturers of domestic and artistic pottery'. Their telegraphic address was ‘Vase, Aberdeen’. This presumably reflects their main product. They installed new plant and increased the range of wares produced. Their stamp is known: 'CLARKE & SMITH/SEATON POTTERY/ABERDEEN' in an oval. Four plant pots were recovered from the excavation with this stamp, and several vases are known. They did not own the Pottery, and left the Pottery in the hands of the owners, Ben Reid & Co., in 1905.

Mills

During the Clarke & Smith phase, a potter working at Joseph Bourne & Son, Denby, called Arthur Mills moved to Aberdeen to work as a thrower at the Pottery. In 1905 he took over the running of the business. In 1907 Ben Reid & Co went bankrupt, and the following year the Pottery was put up for public roup. The upset price was £175 (less than half its value in Thomas Gavin's day) and Mills was the only bidder. He continued to make the popular dab and agate wares and around 1910 expanded the business.

There is a Pottery Gazette article from November 2, 1908, in which ‘a Pottery Gazette special commissioner’ visited Aberdeen and popped in to the Pottery and spoke to Arthur Mills who had come to Aberdeen from Denby in c 1904. A year later the Pottery failed and he leased the buildings and eventually bought them. Arthur was assisted in the venture by his brother-in-law (Pottery Gazette). The Pottery Gazette article gives a wonderful snapshot of life inb the Pottery in 1908. The ‘commissioner’ says

> As a ' Pot Bank’ it perhaps would not count for much in Staffordshire, but it was very interesting all the same. It is not large for a pottery, but evidently very old, and there are indications of recent additions and improvements.

Arthur Mills obtained his clay very locally and augmented this digging clay from the fields of a local farmer each autumn after harvest. Ivor remembers

> ‘The farmer was a somewhat irascible gent by the name of Fraser, with whom we had an arrangement whereby after each harvest we would come over with a horse and box-cart to dig out the clay which still lay under his fields. This would be taken back to the Pottery for 'wintering' and eventual use for the many lines of ware that we produced. Mr. Fraser was as glad to be rid of the clay as we were to have it, but I am sorry to say that we did not always remain in his best favour, as my father kept a few pullets in the pottery yard, and these birds would persist in diving off the roof of the packing-shed, straight for Mr. Fraser's seed potatoes (Leopard magazine, 1986).

The short digging period, the labour involved in reaching the clay, and its rough and gritty quality, meant that this arrangement was less than satisfactory, and it was terminated in 1927 when Arthur Mills leased a plot of adjacent land on the Seaton Estates, and for the next twenty-five years the Pottery had an adequate supply of good-quality clay virtually on its doorstep. From 1940 until the lease ran out in 1952 the specific 'right to extract clay' was entered and accounted for as a separate section of the lease.

When the clay lease on the Seaton Estates ended in 1952, clay was obtained for a while from a new source near the Don Estuary, and latterly from the Cruden Bay Brick & Tile Company at Tipperty, near Ellon. All the clay had to be worked prior to its use and Ivor remembers

> ‘For preparation of the standard clay there was a large main pug-mill driven by a venerable steam-engine which had at one time been the motive power source for a variety of machinery in, the Pottery, and which gave me, as a young lad hours of amusement. Eventually this old museum-piece gave place to a paraffin engine, which itself was succeeded by a gas engine and finally an electric motor’.

Arthur Mills had been joined in the Pottery by his third son, Ivor, as soon as he left school in 1915, aged 15, and he took over the running of the works when his father became ill in 1927. Arthur Mills died in the following year, and the Pottery passed to his eldest son and heir, Leslie Mills. He was not concerned with the business, however, being employed as a repairer with Aberdeen Corporation Tramways, and a couple of months later he transferred his rights to his younger brother, Ivor.

Ivor recalls ‘The Pottery at the time that I took over was a splendid 'glory-hole' - a scene of picturesque disorder very much in favour with artists who would love to come and paint or sketch its many little nooks and comers. I instituted a tidying-up and white-washing of the interior which thereby was made to look quite respectable for visitors. This was no mean task, as anyone will find out who tries to white-wash on top of about a quarter of an inch of soot and grit - it quickly becomes not so much whitewash as blackwash! The job was done, though, and lighting conditions in the place were greatly improved while the factory inspectors who regularly called on us while on their rounds were also kept happy’.

With the onset of the Depression, Ivor concentrated on horticultural wares, flower pots in the Spring and bulb bowl in the autumn. These were in steady demand and the Pottery prospered. In the 1950s Ivor took his son Stewart into the Pottery and he became the third generation of the family to work there.

During the Mills period, in addition to the family, they had only a handful of assistants including two girls who performed tasks like the weighing-out of clay into the requisite-sized pieces, moulding, and general fetching and carrying.

During the 1950s, Aberdeen city planners had scheduled the land occupied by the Pottery for residential and recreational use. This, combined with the introduction of the plastic plant pot, sealed the fate of the Pottery, which closed in 1964. The buildings were used for workshops by Mrs Murray’s Cat and Dog Home for two years and in 1966 Ivor mills sold the property to Aberdeen Corporation and the buildings demolished.

During the excavation a man visiting the site recalled that as a teenager, he had worked for Aberdeen Corporation and had been on the trucks that cleared the Pottery buildings and took the rubbish to Nigg/Tullos tip. One of the potters’ wheels (probably purchased by Clarke & Smith or Mills), was rescued during the Pottery closure and stored at the Blacksmith’s Workshop at Kittybrewster. It was acquired by Aberdeen Art Gallery and Museums in 1981 (ADBMS002591).

THE GEOPHYSICAL SURVEY

Until recently it was thought that 'the old Pottery was quickly demolished, and high-rise flats built on the site' (Cruickshank 1981, 36), but small-scale resistivity work (Kidd 1999) has suggested that some of the buildings survive next to high-rise flats that were thought to have destroyed them. Following a successful application to Historic Scotland, Geophysics Bradford carried out a magnetic survey of the site (report sent to Historic Scotland March 2003). No structures or deposits thought to be associated with the Pottery were identified (Ill 7) and the excavation trenches were, therefore, based on map evidence.

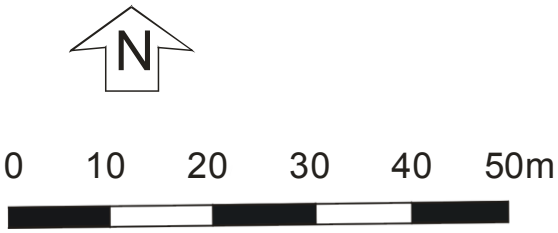
Ill 7 Geophysical survey

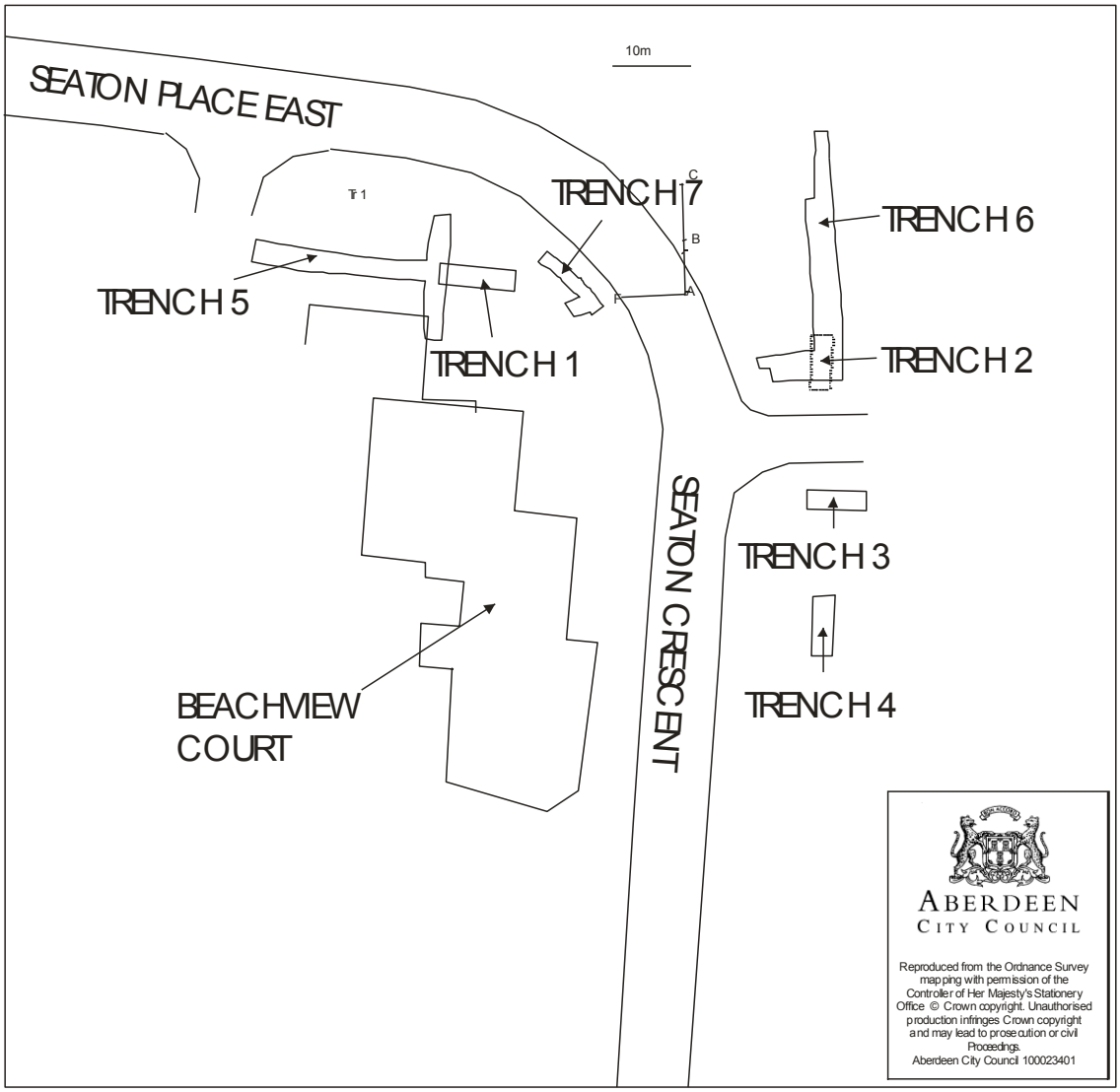
THE EXCAVATION

Seven trenches were excavated in areas previously occupied by Pottery buildings, Trenches 1-4 in August 2002 and Trenches 5-7 in August-September 2003 (Ill 8). Trench 1 was completely hand dug in the area of the western boundary wall of the Pottery, in the area of the packing shed. Trenches 2 and 3 were positioned at the north and south ends of the building on the frontage of Seaton Place East, known to have been the wheelhouse and drying flues. Trench 4 was positioned in an area occupied by a clay pit which appeared on the 1867 OS map of the area and was thought to have been filled in prior to the construction of the Pottery. Modern overburden in

Trench 2, 3 and 4 was removed by machine. Trench 5 was a western extension of Trench 1 to reveal the full extent of the dump of waster pottery and kiln furniture found in Trench 1 in the previous season. Trench 6 was an extension of Trench 2, and Trench 7 was positioned in the yard of the Pottery. The excavation had hundreds of visitors and they included the daughter of the last owner of the Pottery, Edna Goudie and her family and Reporting Scotland.

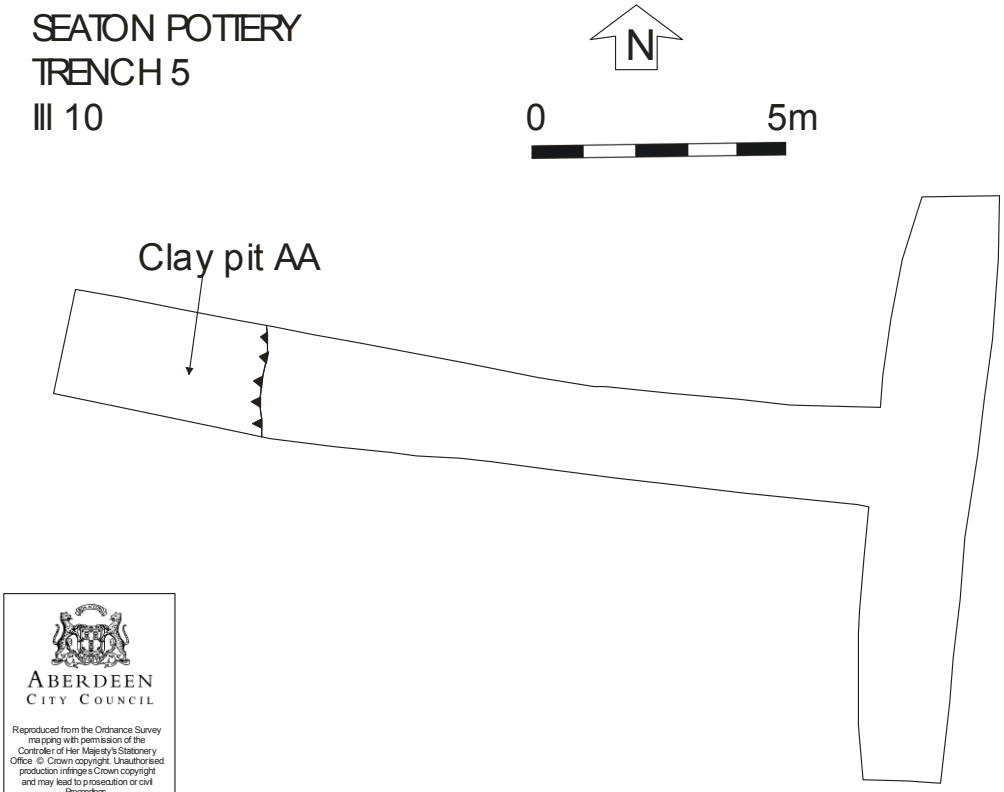
SEATON POTTERY
Ill 8





PHASE 1
Clay pits associated with Brick and Tile works (pre 1868) (Ills 9, 10)

In Trenches 1, 4 and 5 (Ill 8) clay pits were excavated which pre-date the construction of the Pottery buildings. In Trench 4 the clay bed was 2m below ground level and it was examined by machine only. The clay pit had been filled with successive layers of clay, virtually devoid of finds. The careful cleaning of the base of Trench 1 revealed incised lines including three sets of parallel lines 0.34-0.38m wide (Ill 9). These were probably the marks left by small metal-wheeled carts, used for transporting clay out of the clay pit. In Trench 5 (Ill 10), a clay pit 2m deep was excavated by machine. It was filled with layers of clay and was virtually devoid of finds.



These clay pits probably date to the mid-19th century, when the Seaton Brick and Tile Works occupied the site next to the land which was to house the Pottery. A portion of Trench 1 was also within the area of the garden of a cottage (36 Seaton Place East).

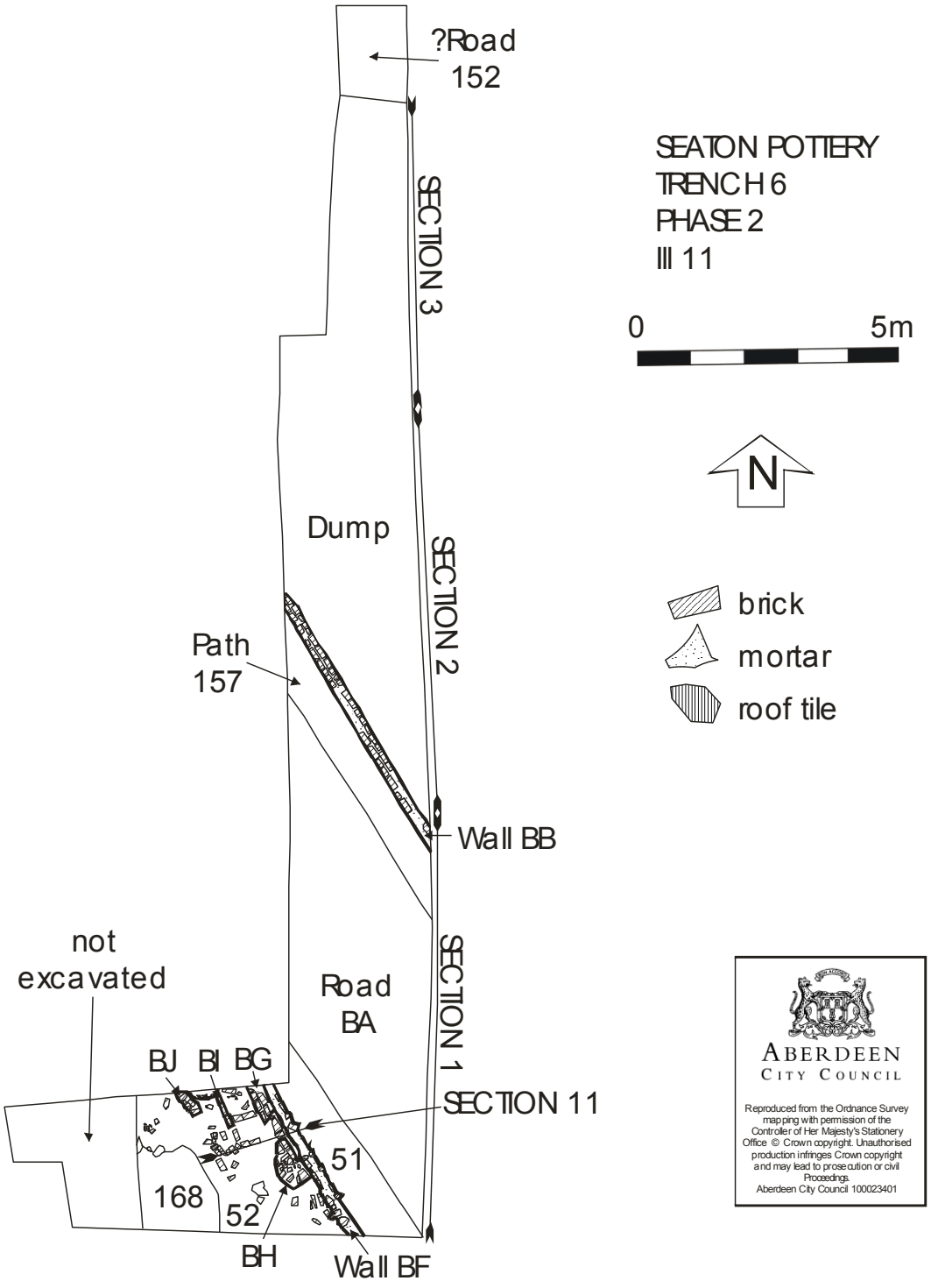
PHASE 2
Brick and Tile Works demolition? (pre 1868)

Layers of clays containing brick and tile fragments were spread over the area of Trench 1, up to a depth of 0.25m. One layer consisted almost entirely of a dump of broken pantiles. These layers almost certainly represent a dump from the Brick and Tile Works which was situated immediately west of the Pottery when the latter was constructed in 1868. The layer may represent a clear out prior to the closure of the works.

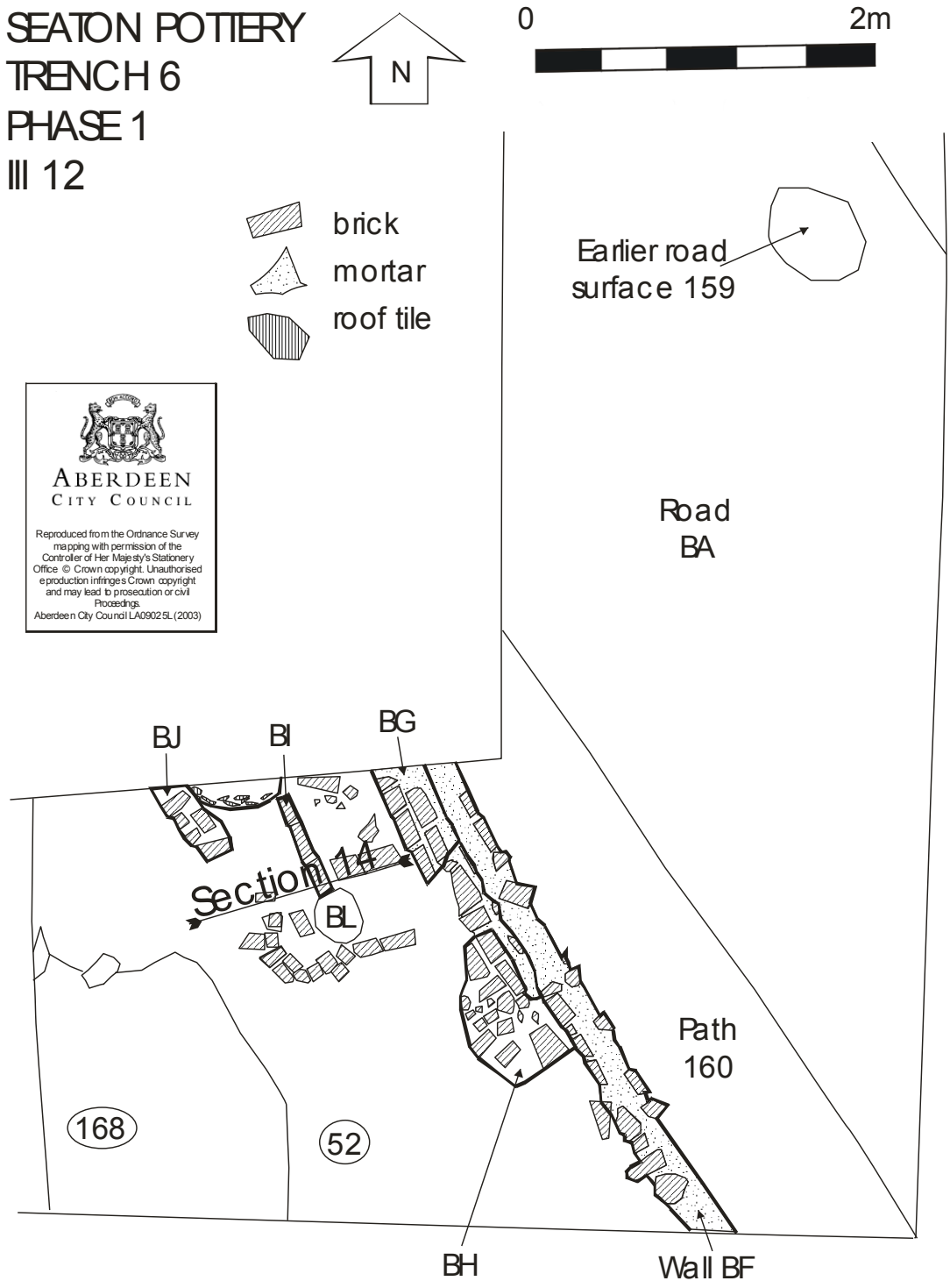
PHASE 3
Construction of Pottery buildings (c 1868) (Ills 11, 12)

One of the main aims of the excavation was to determine whether the foundations of the Pottery buildings survive under ground. Due to the re-routing of Seaton Place East during the

construction of Beachview Court in the early 1970s, the buildings containing the kilns are now under Seaton Crescent. Trench 5 in 2003 was situated to the east of the street to look at the area of the long series of buildings (Ill 6).



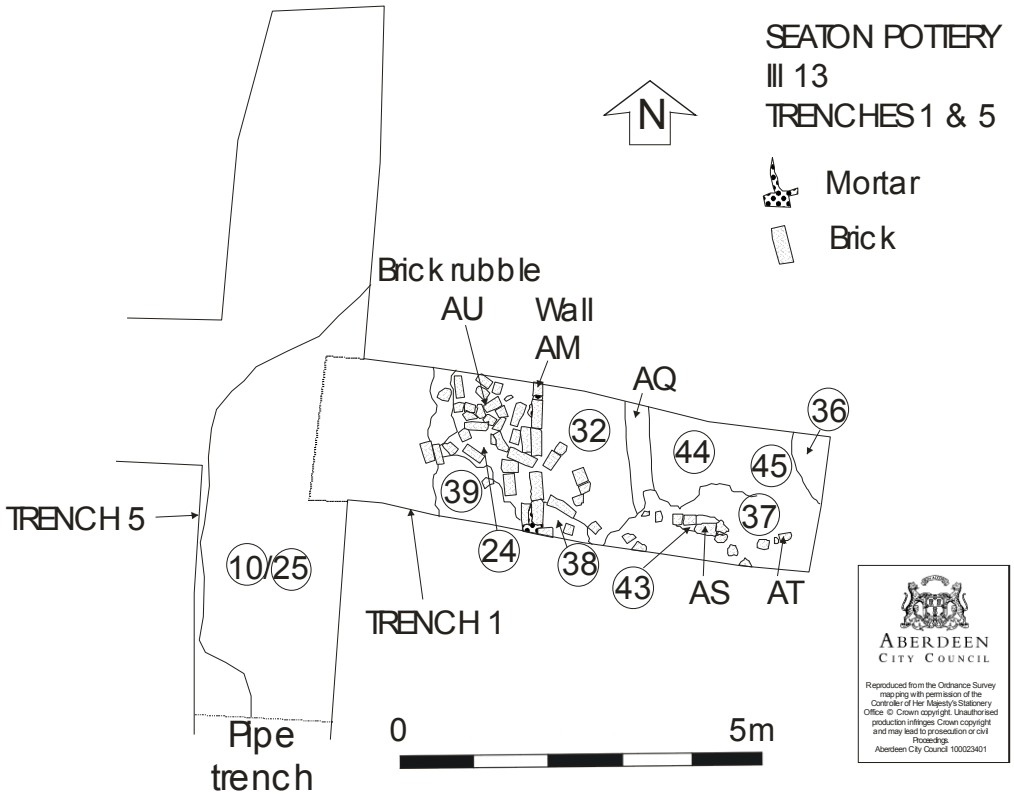
In Trench 6, brick wall, BF (Ills 11, 12), was the east wall of this building, situated adjacent to road BA (Ill 15, Section 1). The road had an ashy path on each side (contexts 51 and 157) and on its north edge it had a freestanding brick wall, BB, which presumably separated it from the area of the Links on which domestic rubbish was dumped. It was from context 51 that plant pots incised with the mark of Clarke & Smith (1904-5; below) were recovered. They appeared to have been dumped in a space between Building BF and the road BA, possibly to make up ground prior to laying a new pavement surface.



Brick features inside the building (BG, BI, BJ and BH: Ill 16 Section 11) may have been internal features within the building. BH may have been an entranceway or threshold, and BG may have been a fireplace.

PHASE 4
Pottery layers (early 20th century?) (Ill 13)

Up to 0.20m of loams and layers of broken ceramics (context 10/25, Ill 13) probably represent activity during the early years of the Mills Period of the Pottery. These were cut through by Phase 3 wall AM. The layers consisted of mainly cream slipware bowl sherds and fragments of annular kiln spacers and saggars. Also included in the layers were small numbers of small pipe clay kiln stilts, large sgraffito slipware bowl sherds and a knob covered in brown, green and blue glaze, probably from the lid of a food-storage barrel.

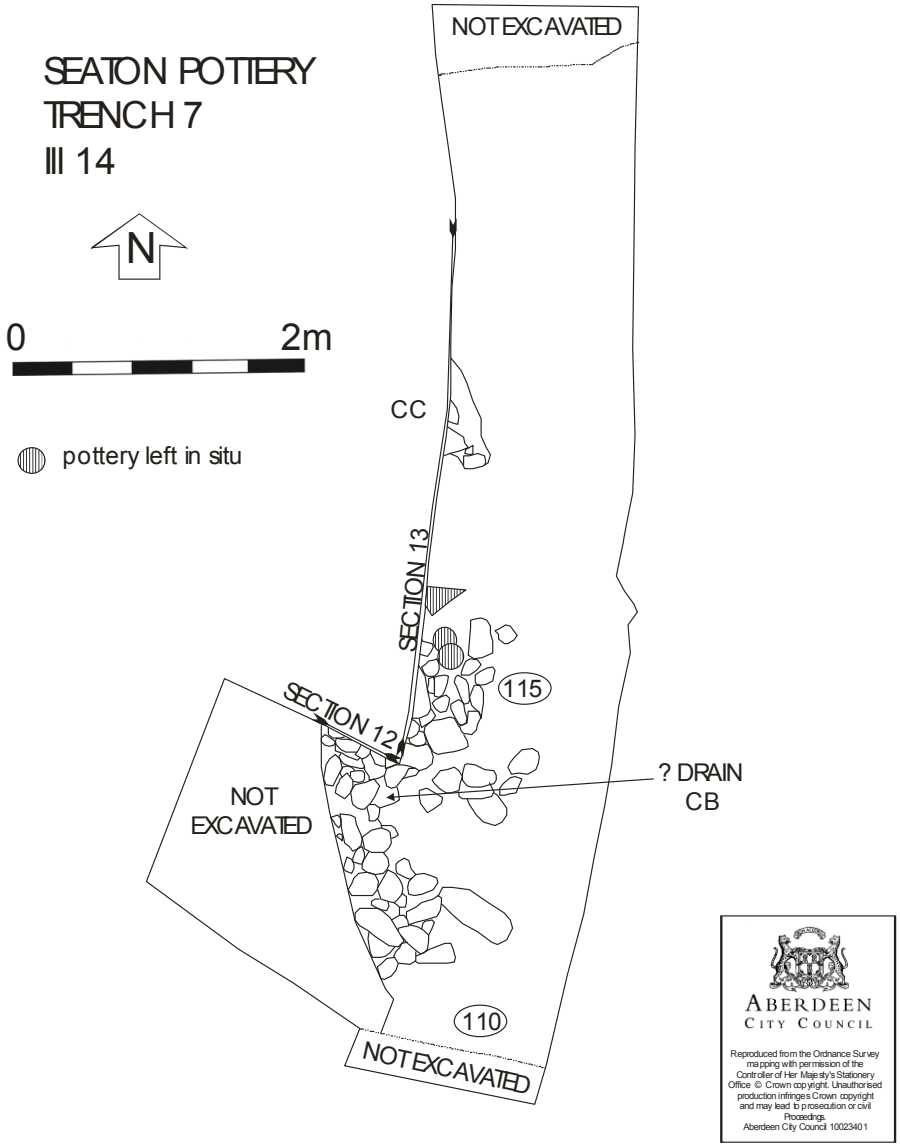


PHASE 5
Construction of wall AM (early 20th century?) (Ill 13)

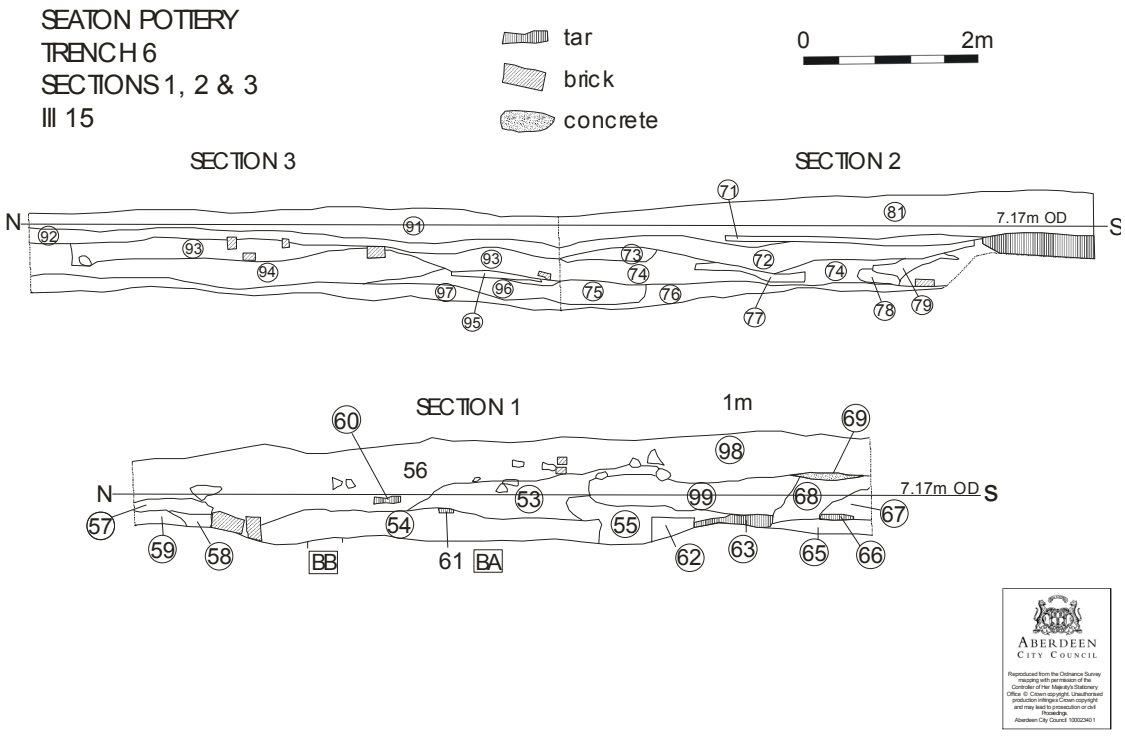
Brick wall foundation, AM (Ill 13), was three bricks wide and bonded with mortar. It was the remains of the wall delineating the western extent of the Pottery lands. To the east of the wall, within the grounds of the Pottery, two settings of bricks, AS and AT were associated with a channel AQ. Compact clays (37) over this area also filled AQ. There was no evidence of a fill within either AS or AT and it is difficult to interpret these features.

Contemporary with the construction of wall AM were two post-holes (AN and AP), both still containing traces of wood. These were presumably associated with the cottages west of the Pottery and may have been a garden feature, possibly a fence.

PHASE 6
Pottery dump (mid-20th century) (Ill 14, 17)



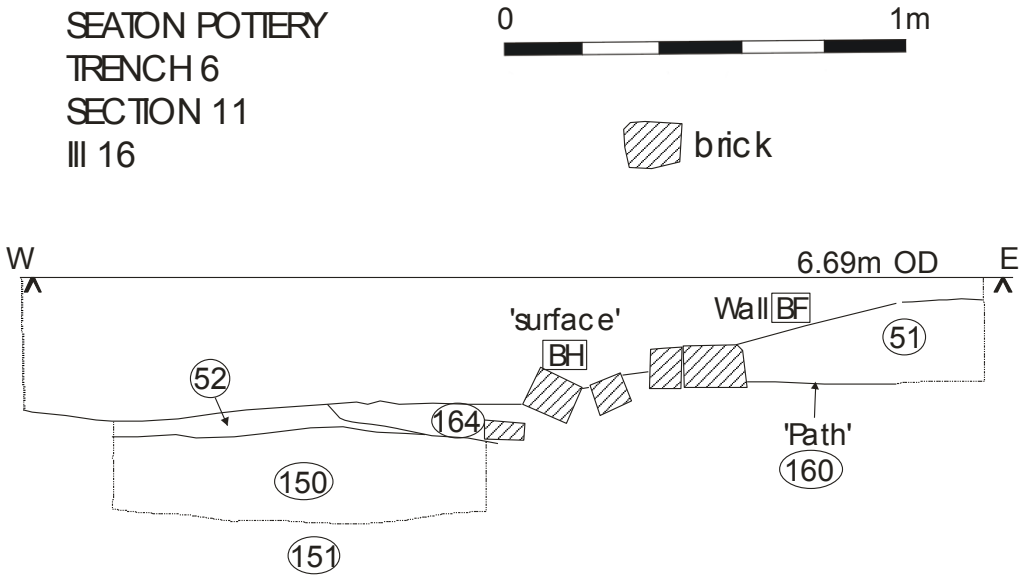
In Trench 7, a dump of wasters from the Pottery (Ill 14) seemed to have been deposited inside a drain or sump (CB: Ill 17 Sections 12 and 13). The dump contained a number of complete stacks of 5-6 plant pots, stacked one inside each other for firing in the kiln. The kiln overheated and many pots were damaged, including some which were 'blown' and some fused together. These had been 'discarded' in the yard of the Pottery. Many, however, had been laid upside down. It is difficult to explain this phenomenon, although it is possible that they were fired in the kiln in this position and then removed from the kiln and placed into this dump of waste material.

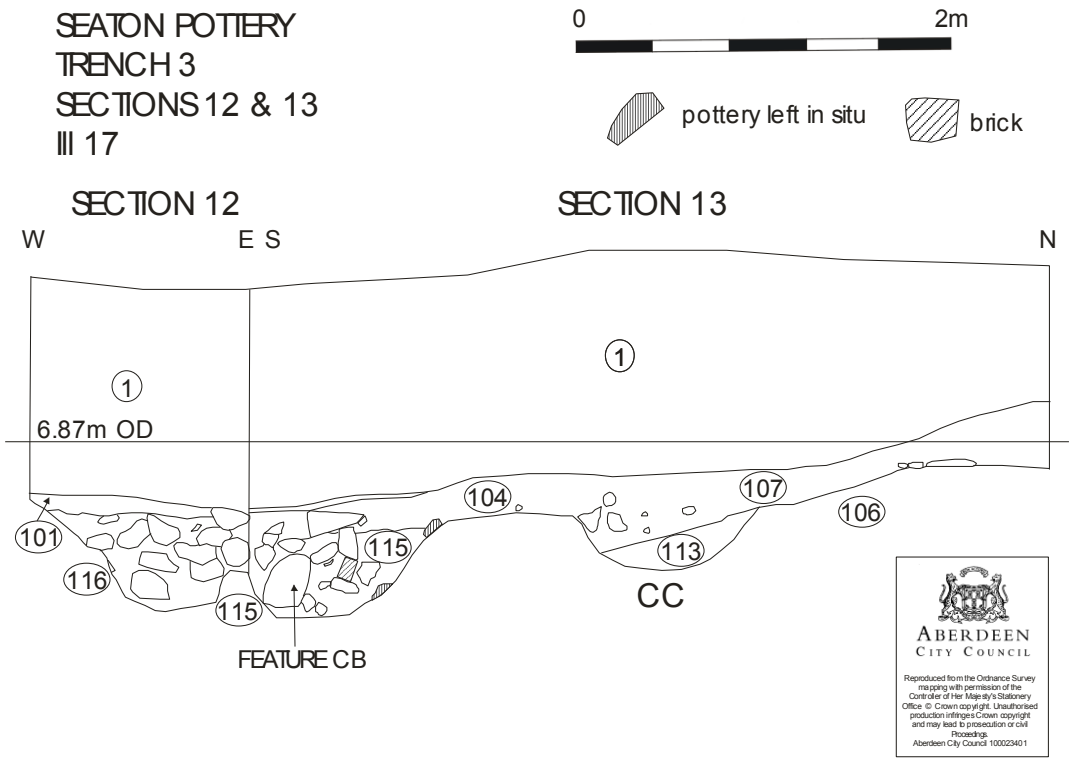


A number of fragments of plaster moulds were recovered from this dump which may have been used by the Mills family, or may have been some of the 'hundreds of old moulds for tea-pot handles and spouts, the tea-pot bodies' that the Mills family found in the attic above the workshops. They were presumed to have belonged to the Gavins and were discarded.

Much of the rest of the deposit consisted of waster sherds, clinker and metal as well as part of a plastic comb, fragments of photographic film and a human canine tooth with a large carious hole.

SEATON POTTERY
TRENCH 6
SECTION 11
Ill 16





THE FINDS

A large number of finds were excavated from this site. These primarily comprised pottery (Appendix 1) and kiln furniture (Appendix 2) discarded from the use of the Pottery during the period 1868-1964. The catalogue of these finds includes all diagnostic rims and bases, all decorated pieces and virtually all of the kiln furniture. Other finds (Appendix 3) are catalogued where they have been used for dating or are distinctive in their own right. Rims and bases have been measured and the statistics are included in Appendix 4. Thousands of body sherds from plant pots and dairy bowls have not been catalogued.

THE POTTERY

Pottery included some examples of well-known Seaton wares and many examples of vessels which were not known prior to this excavation. Further work will need to be carried out on the fabrics, but clay has already been submitted to the Scottish redware Project and examples of vessel types will be submitted to Phase 1 of the project (subject to the project to getting Historic Scotland funding) which is due to start n April 2004.

Fabrics identified include several orange to dark reddish-brown wares, many with large inclusions. These are assumed to be made from the local clays, some dug from near the Pottery and some from further up the coast, including Black Dog, just north of the river Don and the Cruden Bay area. Other clays used include a white to off-white pipe clay, imported into Aberdeen (presumably from the St Austell area of Cornwall – G Haggarty pers com). Mills records in his reminiscences (Leopard 1986) that they bought blocks of white pipe clay from Auld's Pipe Works in Constitution Street, Aberdeen. He recalls 'it would fall to my lot to break up these very hard blocks with a hammer, throwing the pieces into a large tub of water to soften. After a while, the soaked clay would be fed into a small upright pug-mill, which ground it up smoothly, forced out air bubbles, and fed it out again in a continuous 'sausage' ready to be cut into pieces and used'.

The pipe clay was used for the body of vessels glazed in the dab ware style, the lighter banding of the agate wares and also to mix with the local clay. It is thought that the pipe clay, which was creamy white during the Gavin period of production, was whiter during the Mills period (Michael Thomson, pers com). Unfortunately the quantities found during the excavation were too small to prove or refute this theory.

Most of the wares found on the excavation were wheel-thrown, although a number of machine-made plant pots and a small number of moulded objects and plaster moulds were excavated. Slip moulding may have been carried out, although Ivor remembers

> 'Whole factories were and are geared to this latter method [moulding], and to a certain extent we used it at Seaton, rolling or flattening out with a 'bat' —a heavy weight with a handle on top-pieces of clay for pressing between the concave halves of a plaster mould-case. Attractive and unusual designs were easy to execute in this way, although because of difficulties in the later stage of production the scope of these lines tended to be somewhat restricted. Experiments, however, would go on from time to time with less ordinary items like piggy-banks pressed out of the yellow clay that we dug locally, or elephant-shaped bulb bowls with perforated sides and white clay tusks'.

The process of making pottery involved the leather-hard finished items being allowed to dry for a couple of days and then fired. The Seaton Pottery had an old-fashioned conical brick-built kiln with a circular base containing eight fire-hearths. The wares would be stacked in the kiln, the entrance of which would be sealed up with fire-bricks and clay, and coal fires would be lit underneath. The heat was conducted into the kiln through a circular central aperture in the base, and the natural updraught did the rest. At temperature of between 800 and 1000 degrees Fahrenheit, raw clay fuses into a solid mass; once this stage had been reached, the fires would be allowed to go out and the kiln to cool. This cooling would take a day or so, after which.the doorway to the kiln was broken open and the wares inside removed. As much as possible was stacked into the kilns, to make the business as economical as possible. Moulded articles were usually rather irregular in shape and would not often stack satisfactorily in the numbers required, which is why they were generally viewed by us with a little less favour than other lines (Leopard 1986).

The complete firing process took anything up to 24 hours, and the kiln had to be kept stoked day and night, using an average of three and a half tons of coal. Real skill was required in getting the kiln to just the right temperature at the right speed for the glazes to run nicely, and in the Gavin days at least one kiln-man was employed full-time. Latterly Ivor's son, Stewart, looked after the night firings.

Ivor recalls '.....my father would be anxious for some indication as to how they had turned out, so, after the kiln had cooled for only a few hours, he and his assistants would remove a few of the bricks sealing the doorway and throw in a sheet of rolled-up newspaper so that it landed near the article or articles in question. The heat inside would still be so great that the paper would immediately burst into flames, illuminating a small area just enough to give at least an idea of how things had gone'.

During the period Ivor Mills ran the Pottery, most of the wares produced only needed to be fired once. Little glazing was taking place until

> 'I began to look at the possibilities of refurbishing a small subsidiary kiln that the Pottery had, roughly half the size of the main one and fired from six hearths instead of eight. The whole structure was completely derelict - little more than a heap of rubble - but with the idea that if I could get it operational again I would be able to produce exact quantities of things economically, I called in a father-and-son building firm who as soon as they saw the state of things had a good idea of what I was going to ask them to do. There was little work for them during the war, and they were pleased to have the job. It was a grand kiln by the time they had finished, and it

worked well apart from two slight draw- backs. Smaller flowerpots, etc, still required to be protected in saggers, and a good load of these so filled the restricted interior space that a considerable mass was presented for the heat to penetrate before it reached the ware and we ended up by using a lot more fuel than should have been the case. Also a quite tremendous issue of smoke and flame was emitted from the chimney - so much so on one occasion that we had a visit from the Fire Brigade in response to a call from somebody about ' a fire at Seaton". That didn't do in wartime, but fortunately we had no such problem with the big kiln, which took a full twelve hours to reach the stage where any glow could be seen. It therefore only needed to be lit at about four o'clock in the afternoon for blackout regulations still to be fully observed. So we got along. In addition to the usual lines I made to order some fancier goods in terracotta - vases, ornamental plaques, jugs, and other things, while for a nearby florist's shop I threw little flower baskets finished in a variety of colour using a miniature paint sprayer and compressor. If you come across any little receptacles finished in an odd- looking metallic glaze, that's probably what they are'.

Makers' marks

No stamped pieces from the Gavin and Ritchie phase of the Pottery are known. The closest to a marked piece is the 'MRS GAVIN/1988' butter tub discussed above. Clarke & Smith stamped a number of vases and four stamped plant pots from this phase of the Pottery were found during the excavation. Even though Ivor Mills remembers 'I must have stamped the 'Mills' mark on hundreds of the articles that my father made during the first few years that I worked at Seaton Pottery', very few Mills pieces are stamped.

Agate ware

This ware involves the use of different-coloured clays to create a banded effect. It is distinct from marbled ware, which looks similar but is banded only on the surface. In agate ware, the banding goes right through the body and can be clearly seen on a freshly broken edge. Two or three colours of clay were used during the Gavin period. The three-colour agate used dark brown, medium brown and off-white, whilst the two-colour used the medium brown and the white. Although several potteries in Scotland and England employed this technique, it may fairly be claimed that none of their products can equal the thrown agate ware of Seaton Pottery (Evans 1981).

The different clays were wedged together, and then divided up and made into balls for throwing on the wheel. This resulted in items composed of irregular spiral bands of alternating colours. Minimal wedging produced large areas and wide bands of starkly contrasting colours, while prolonged wedging mingled the clays together giving more gradual tonal changes and simulating natural agate stone to a greater extent. After each pot had reached a leather-hard condition, it was turned. The water used during throwing had blurred the appearance of the banded clays, and so a sharp tool was employed to scrape off the outer skin, thereby revealing the contrasting colours with dramatic effect. When covered with a transparent glaze, the brown colours were brightened and the off-white became cream. Before glazing, the interiors of the barrels were usually given a coating of cream-coloured slip.

Dab ware

A number of dab ware barrel sherds were excavated. The vessels were made from the off-white, creamy white or white pipe clay and were usually thrown on the wheel. Examples identified in dab ware include food storage barrels and cheese-dishes. These vessels are glazed in green, brown and blue glazes which were decorated by dabbing-on areas of colour prior to glazing. They were applied in irregular-shaped patches, apparently by using pieces of wadded-up cloth. The colours were generally applied close together so that they tended to merge. Sometimes, however, gaps were left which reveal the body as a rich, deep yellow undercoating of transparent glaze.

The food-storage barrels produced at Seaton have often been confused with similar examples made at the Rosslyn Pottery of Morrison & Crawford in Kirkcaldy. There are many close similarities, and also a number of distinct differences. Both the Aberdeen and the Kirkcaldy barrels imitate the form of wooden barrels, even to the extent of including the outline of their iron hoops. Both were made primarily for storing foodstuffs and both were decorated by applying the three colours under a transparent glaze in a manner which encouraged the colours to run together. Both were fitted with pottery lids with lifting knobs and both commonly bear applied lettering (Evans 1981).

The differences between them include the fact that Seaton examples generally have fewer rings, which tend to be wider and flatter, their patches of applied colour are larger and their lids tend to rest on deep lid seatings rather than lying flush. Seaton examples appear to have been usually fired using stilts and they carry a much greater variety of wording, and are frequently dated. The capital letters of Seaton examples have prominent triangular-shaped serifs and inscriptions are inlaid into the body of the pot or into an applied pad rather than applied onto the surface. Examples from the excavation, where a vessel has broken through the lettering, show that a wedge-shaped incisions forming the letters were made into the vessel, and these incisions filled with brown clay.

Ivor Mills reminisces:

> 'Although in my father's day quite a volume of very fine glazed ware was made (and went halfway round the world), the likes of storage barrels were never produced in great quantities at a time. Available only direct from the Pottery, these were always turned out to individual order, as in the case, for instance, of a George Street tobacconist's shop that I recollect having a row of thirty or so of my father's small barrels as tobacco jars. I would wonder just how the economic side of this class of ware went, as its manufacture was a relatively lengthy business from the customer's point of view and a rather hit-and-miss one (with a lot of misses) from ours'.

Tea-pots and other glazed wares

A number of brown-glazed vessel sherds were recovered including sherds from tea-pots. A number of bisque sherds, from vessels which had only been fired once and damaged prior to their glaze firing, were also recovered. These examples prove for the first time that Seaton made teapots. Up until this excavation, this was assumed but not proven. Portions of the body, handle, spout, lid, lid seating, knob and strainer holes from tea-pots were recovered. They were covered in a dark brown to black glaze. They appear to be mainly large plain examples with ribbed handles and plain knobs, a type known locally as a 'Brown Betty'. During the Gavin period, their bodies were thrown whilst the spout was made in a mould and the handle extruded, a type of moulding.

Other brown-glazed wares include pickling jars, large thick vessels with a straight-sided profile and a thick dark brown internal glaze, which occur in a variety of sizes. A number of shallow bowls or saucers with thick sides and bases were also excavated. These have a central circular recessed area and, at time of writing, their function has not been established. Their function as a container from which chickens fed has been considered, although the relative expense of these items and the ease of breakage, seems to rule out this function.

Most of the glazed wares found during the excavation belonged to the Gavin and Ritchie, Clarke & Smith and early Mills period. Ivor recalls 'latterly [towards the end of his life in 1928] my father had given up glazing altogether. Strict controls had by then been laid down in the use and handling of lead glazes, which were not only very messy (red lead would finish up being tramped all through the place) but also very poisonous'.

Unglazed earthenware vessels

A small number of moulded earthenware sherds were found during the excavation. These include at least two sherds of terracotta plaque, made primarily during the Mills phase. These were shallow bowls, decorated with incised rouletted decoration made using a jig. These vessels were left plain on the underside and pierced for wall-mounting. They were unglazed. An example in the collections of Aberdeen Art Gallery and Museums is inscribed on the reverse as a wedding present for a friend of the Mills family.

Dairy bowls

A large number of bowl sherds were found during the excavation. Their rim diameters ranged from 36-45cm but the majority were in the range 44-45cm in size. Most of the vessels were made on an orange to reddish brown fabric. All had white or cream slip on their internal surface, which was made using the white pipe clay. Many had brown glaze on the top portion of the exterior body. They were used mainly as milk or cream bowls. These were produced by the thousand and many did not pass the stringent quality control of the potters. Many examples found during the excavation had been subjected to excessive temperatures in the kiln, which made the glaze bubble. A small number of examples from the excavation displayed decoration on the internal surfaces. Bowls which were given as presents were often decorated with the name of the recipient and the date (in a similar way to the food-storage barrels). The name and any decoration was incised in the same way as on the barrels, and then filled with brown clay. The interior was then covered in a clear glaze. A number of complete examples survive including an example in the Collections of Aberdeen Art Gallery and Museum, which is inscribed MRS CRUICKSHANK/WEST CAMPFIELD/APRIL 1890.

Evidence for the firing of these bowls was seen on a large number of wasters. Stacking scars, formed when a bowl attaches to the one above or below in the kiln, were common. These were seen mainly on the inside of the bowls under the rim. Annular kiln spacers (see below) were used to stack bowls within a saggar for firing.

One example of another type of bowl or shallow dish was found in layer 51, a context associated with the Clarke and Smith phase. It was a large oval fish dish or dripping dish, and was covered with a dark brown glaze. It had a cream slip pattern in the form of foliage or a branch.

Jardinieres

A number of fragments of large earthenware vessels, which might be fragments of jardiniere, were excavated. Some examples were covered with brown and cream glaze on their interiors, whilst others were decorated with moulded foliage pattern.

Rebecca jars and other jugs

One handle from a large ‘Rebecca’ jar was found during the excavation. These vessels were often left unglazed and were sold to local artists and groups, who painted the vessels themselves.

A number of other jar and jug forms were recovered, many of which had not been identified as products of this Pottery prior to the excavation. These vessels do not often appear in collections and are never marked or stamped. The only other evidence for them is a photograph in the Pottery Gazette from 1908 showing a range of them. A number of small jug handles were recovered, made in pipe clay and covered with a light green glaze. Other rim forms will be studied further over the next few months.

Ivor Mills recalls

‘Before the First World War, however, we still kept on fancy glazed lines ranging from the food storage barrels that had always been popular, to knick-knacks like a line my father had of little cobalt-blue ornamental jugs with the most delicate of handles. Liquid preparations of mineral salts like manganese, cobalt, arid so forth would be kept in flat clay bowls for applying to the surface of the wares, usually in alternate dabs, using soft, thick brushes. Those were the colourings; once the ware had received this treatment at the hands of my father or myself, it was dipped all over in a large tub of red-lead glaze solution arid allowed to dry’.

Plant pots

The plant pot was the mainstay of the Pottery during all three periods of production. As very few examples of their plant pots survive in collections (because they were not particularly collectable) the excavation could shed much light on this side of the Pottery’s production. Excavated examples come mainly from the latter two periods, the Clarke & Smith and the Mills. Examples from the Clarke & Smith period (1904-5) have been identified by a stamped mark found on four examples. The incised stamp includes the words ‘CLARKE & SMITH/SEATON POTTERY/ABERDEEN’ in an oval border. Mills plant pots have been dated using other finds as no marked examples were found.

Plant pots were made in a variety of sizes, from 6-35 cm rim diameter (Appendix 4). The majority were plain upright examples. A small number of fragments of bulb bowls with frilled tops were found and a few fragments of decorated examples, including a raised dot decoration as well as a small number of examples which have been crudely painted. Plant pots with larger bases tended to have two thumbed drainage channels around the circumference of the base, made very roughly with a finger or thumb. Some large thick bases have larger off-centre holes, but most holes were pierced roughly with a circular implement. Some holes were very rough and not finished off whilst some have been smoothed and finished. The majority of the plant pots had collars, with the larger vessels tending to have slightly deeper collars. The machine-made vessels often have collars constructed by turning over the rim and many of the pots display wipe marks where excess clay has been cleaned from the vessel using a cloth. Ivor recalls

‘Up until very late on in the Pottery's history, all flowerpots were made on our three throwing wheels. Mechanisation only came in the post-war years when I took delivery of two brand-new moulding machines which revolutionised the works and quickly proved themselves to be by far the best pieces of manufacturing equipment that I ever had. Each machine consisted of an iron frame, the upper part of which carried a rotating vertical die and the lower part a mould. A suitably sized piece of clay was placed in the mould, which contained a special quick-evaporating oil to prevent sticking, the mould was raised by two handles to meet the die, and as the two came together you could see the clay come up the sides to meet you. This easy task accomplished, the mould was let down again arid any surplus clay trimmed away with a knife. Being always on the lockout for anything that would make operations easier and more efficient I subsequently let a little piece of old clock-spring into the top of each die so that I could complete the whole process in one. The conical outer shell of the mould was then dropped further, leaving the completed pot standing free on the circular metal base. One machine made pots up to 10 inch diameter, while the other went up to 12 inch, and there was a ready-made range of moulds and dies so that anything from the very smallest to the very largest pots could be turned out with no trouble at all. The really large pots required two to work the handles, and it sometimes took two or three attempts before that clay could be seen coming all the way Up the sides, but this was of no importance - the general improvement was.

Perhaps the most remarkable thing about the new machines was the fact that they were made by a local blacksmith, Mr. Lyon of Kittybrewster, with only an illustration of a German machine in a pottery magazine as guidance. Fortunately, Mr. Lyon enjoyed a challenge and how proud he was when, after all his work, he was able to take home the very first flower-pot that we

made by the new method. To suit the machine we changed the type of clay we used. The free, pliable clay that we dug locally was excellent for throwing and moulding, but not stiff enough for the new process. From then on we went to the Cruden Brick and Tile Company at Tipperty, where clay of the correct consistency was available by the ton. It would be brought in and stored under polythene until the time came to mill it and use it - the more promptly the better, as it became very hard if left'.

KILN FURNITURE

A large number of fragments of kiln furniture were excavated. These included kiln stilts manufactured from white pipe clay, hand-made kiln stilts made from the local earthenware, annular kiln spacers (Martin and Martin 1996, 36).

Kiln stilts

These are three-legged objects made from white pipe clay and imported into Aberdeen for use in the Pottery. They were placed between smaller vessels such as barrels and tea-pots to keep the glazes on these vessels from fusing them together. Marks can often be seen on the bases of the vessels where the stilt has become attached and has been broken off after firing. A small round scar is left which can be filed down, leaving a small dimple.

A number of examples are decorated with stars and flowers: it has not been possible to source these objects, but they were imported, possibly from Stoke-on-Trent. Others have markings (for example A 3) which appears to be a size code. Modern examples which have been studied by the author, have A 02, A 03 – A 07 in increasing sizes and, although the excavated examples do not trally with the modern ones, they may represent a changes from imperial to metric. It is difficult to research these objects, as they are so utilitarian, they are taken for granted by potters in the same way as the other kiln furniture.

Other kiln stilts include 'pips', small triangular pipe clay stilts for spacing between small objects. Several of these stilts are covered in glaze: mainly green, blue and brown, the main colours used for covering the dab-ware barrels.

Hand-made spacers

These were made using 'sausages' of clay, roughly formed and fired. Thy were presumably made individually for particular uses. No evidence of the use of these objects was seen on the vessels from the excavation. One example (SF429) in a light brown clay is in the form of kiln stilts with three legs, but with no feet or spurs. It appears to have been moulded or extruded and may be a local example made by mixing a local clay with the white pipe clay.

Annular kiln spacers

Other types of kiln furniture include annular (or semi-circular, G Cruickshank, pers com) kiln spacers, made from rough fireclay tempered with grog (ground up fired pottery). Fireclay is found in close proximity to coal, and was therefore probably imported from southern Scotland. The kiln spacers were placed in a broken circle and a large bowl placed upside down with the rim on the lip of the spacer. A stack of bowls was placed inside an oval container or saggar (see below).

Many of the kiln spacers display glaze which has dripped from the vessels being fired. Gaps between the kiln furniture and the vessels allow the flow of warm air ensuring that the vessels are fired evenly.

For the naming of these objects see (Martin and Martin 1996, 36).

Saggars

Saggars are oval containers made from rough fireclay tempered with grog (ground up fired pottery) into which all the smaller vessels were placed in the kiln, to cut down on smoke or heat damage. These were locally made (Mills reminiscences, Leopard 1986), probably by the potters themselves. A picture of the kiln stacked with saggars appeared in the Aberdeen Bon-Accord, January 24, 1957.

CERAMIC POTTERS' TOOLS

A small group of shaped objects, manufactured from the local clays, may have been potters' tools. They were made from 'sausages' of clay, flattened slightly and pointed at one end. It has been suggested that they may be ribs (see Evans 1981, 27 for a more sophisticated example), potter's tools used to clean the surface of thrown vessels. They may have been used to clean the external surface of the agate wares to highlight the coloured bands.

MOULDS

During the first season of excavation, the excavators were surprised that no evidence of plaster moulds was uncovered. These were known to have been used in small numbers at the Pottery, mainly during the Mills period. However, during the second season, lumps of plaster were recovered from Trench 7, layers associated with the Mills period, and when they were cleaned, it was discovered that a small number of these showed evidence of the vessels which were moulded. A number appear to be for bases, possibly teapots, although it is known that Gavin teapots were thrown on a wheel. It is probable that by the Mills period, vessels of this type were made in moulds. Ivor recalls (Leopard 1986) that 'moulded articles, being usually rather irregular in shape, would not often stack satisfactorily in the numbers required, which is why they were generally viewed by us with a little less favour than other lines'.

OTHER FINDS

A number of ceramic marbles, made from local clay were found during the excavation. These were probably made for the local children, although it has been suggested that they were used for grinding glazes in a tumbling machine (G Cruickshank pers com). Ivor reminisces in the Leopard Magazine (1986) that 'I never seemed to be away from among its quaint brick-and-pan-tile buildings, and many was the rip-roaring game that I and my young friends enjoyed there - at least until the noise-level reached such intolerable proportions that we were all chased off the premises by my father! Generally, though, it was an ideal place in which to be near home, well supervised, and for us boys a ready source of clay marbles, which we rolled ourselves'.

Other finds included a human canine tooth, 35mm transparency film, a plastic comb and various pieces of fabric from Trench 7 layers associated with the dump of Mills pottery. This dump also included many small cut fragments of leather, which may be associated with the potting or firing process.

No examples of chimney pots were recovered from the excavations. These can still be seen on buildings in Old Aberdeen, with their distinctive black glaze. Ivor recalls

> 'Many, too, were the occasions when I would turn the large wheel that was kept for the throwing of the black chimney pots that can still to this day be seen atop the older houses of Old Aberdeen and the Bridge of Don. About thirty pounds of red clay would go on to this large cogged wheel, driven by a smaller cog with a handle which I had to crank like mad. Terrific pressure was required just to centre this great lump of material, but presently the lower half of the chimney-pot -would take shape, slightly flared at the base. Once a certain

height had been reached, it would be stopped arid taken off for drying while the lipped top half was fashioned. When dry enough the two halves would be smoothed together, fired, then thickly glazed'.

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