A 1770–90 KILN DUMP OF THE DERBY CHINA WORKS

By Robin and Ross Barkla

INTRODUCTION

The China Works on Nottingham Road (Bemrose 1898, 108) is marked on Burdett's Plan of Derby published in 1767 (Fig. 1). The map 200 years later (Fig. 2) shows the site in a block bounded by Wood Street to the west, Alice Street to the east and Fox Street to the north, in an area which has undergone a great deal of industrial development.

In 1987, when most of the block had been cleared of buildings, the opportunity was taken to excavate. The owner, Bowmer and Kirkland Ltd, through Property Manager Mr Jones, gave access to the site for several days in November 1987 and June 1989. Eleven holes (Fig. 3) were dug in 1987 with a motordriven posthole digger, but only to a maximum depth of 4ft 6in. (1.37m), and so did not clear the fill. In 1989, using a small excavator, we were able to reach a depth of 6ft 6in. (1.98m), except where foundations were encountered. A trench was dug at A, several along line B, and in an area marked C a few pieces of kiln furniture were found.

This work was not followed up until 1990, when the site had been sold to Derby City Technology College. Landau Forte College has since been built on the adjacent Wood Street/ Fox Street block and where the China Works stood has been landscaped with all–weather playing fields and car parking. The Project Director, Alan Cowan, gave permission for a few days work on the site. Using an excavator which would go to 8ft (2.44m) deep, we found wood ash with shards and kiln furniture. It is known (Jewitt 1878, 111) that the manufactory continued to use charcoal until 1795.

We were then given access to the site for ten days, and Mr. Cowan marked the area on their topographical survey plan, hoping to keep it clear of even the all–weather courts. To quote John Haslem (1876, preface v), who began his working life as an apprentice at the works in 1822 and in later life wrote of his first hand knowledge of the manufactory and its workmen:

> ...the foundation of the skill which secured the success [the Manufactory] thus attained was laid when no public provision for art education existed; and the Derby China Manufactory thus proved, in its own department, a real School of Industrial Art.

Remarkably 200 years later, after the site has been put to a variety of uses, it is again part of a School with just such an Industrial approach and at a time when pieces discarded by the first 'School' are being retrieved. Mr Cowan is determined that students will be made aware of the history of their College site.

THE 1990 EXCAVATION

The plan was to use the excavator to remove the considerable layer of fill, and then to deepen the holes by hand. We were surprised to find shards in amongst fill soil at 5ft (1.525m), in

Fig. 1 Derby China Works: taken from Burdett's Map of Derbyshire 1791. The Plan of the Town was not updated for this edition, even though County details had improvements and additions. Reprint by Derbyshire Archaeological Society, 1975.

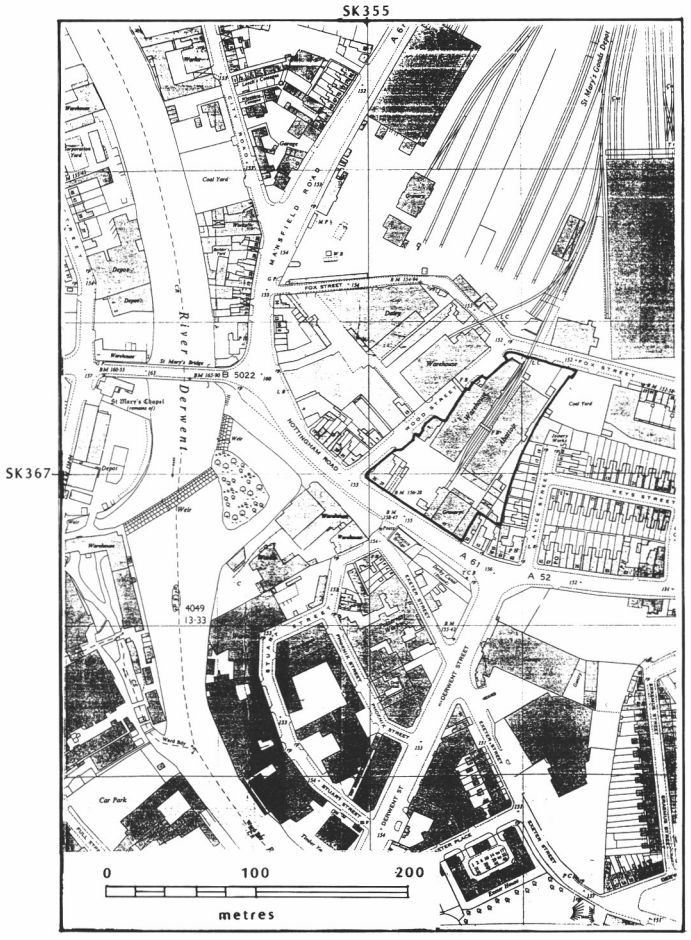

Fig. 2 Derby China Works: reproduced from the 1967 Ordnance Survey 25inch sheet SK3537. *Crown copyright.*

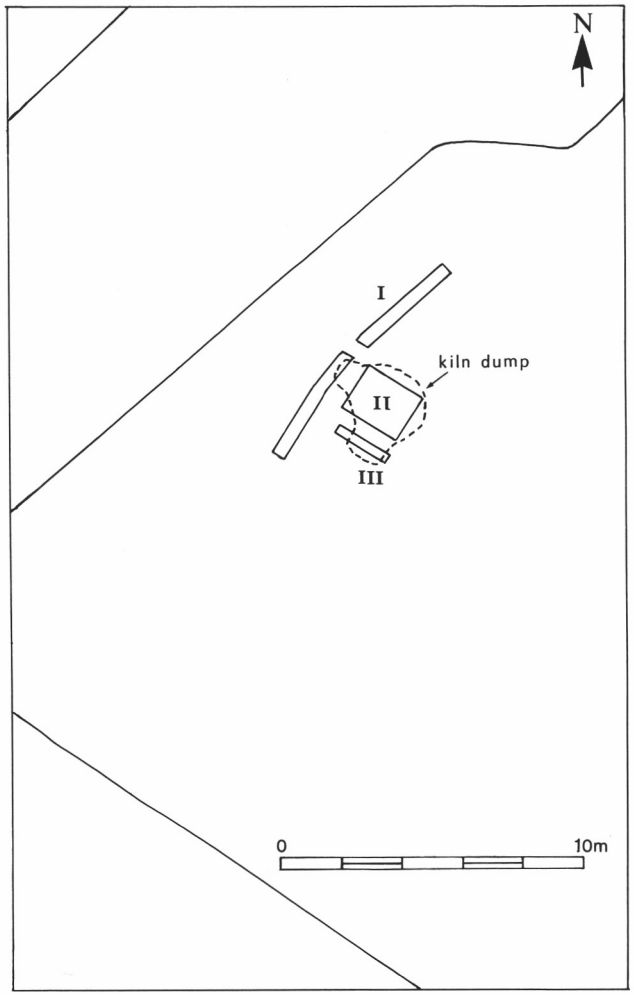

Fig. 4 Derby China Works: plan of 1990 trenches. The broken line indicates most of the area covered by the dump, but also it continued further to the south.

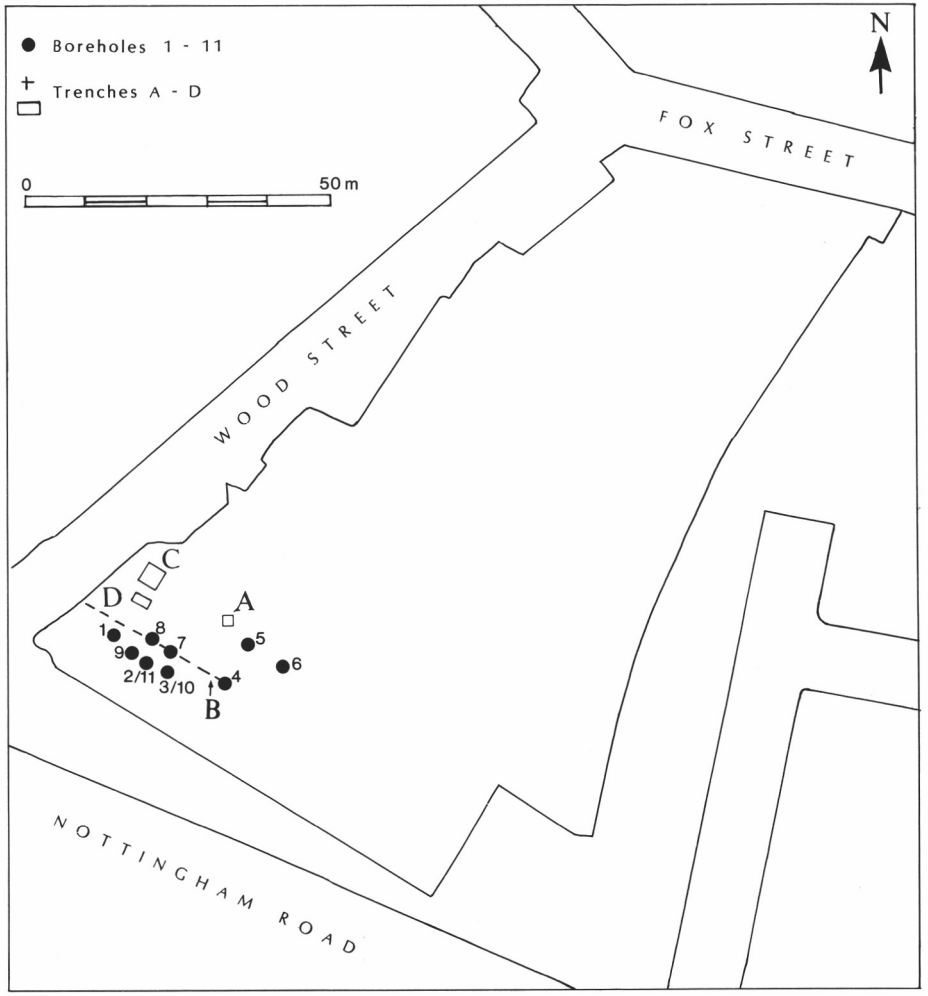

Fig. 3 Derby China Works: location of boreholes and initial trenches.

position D (Fig. 3), and so extended D into a trench 2ft (0.61m) wide and 30ft (9.14m) long (Fig. 4, Trench I). Working south, and digging by hand under a foundation of concrete reinforced with river stones, 2ft (0.61m) deep and 3ft (0.91m) wide, we found the reason for the disturbed shards. A later drain had been laid at 7ft (2.13m) along what was believed to be the western edge of the kiln dump.

There was an undisturbed concentration of shards on the eastern side of Trench I, so Trench II was dug on that side. At 5ft (1.525m) deep ash was found which continued down to 8ft (2.44m). Amongst this ash were shards and some large pieces of kiln furniture. Throughout this trench, the 3ft (0.91m) thick seam of ash and shards persisted, with above and below it heavy clay–like soil. On the northern side of the trench one or two figures were found which may have been complete, but which crumbled as soon as they were disturbed. Digging 2ft (0.61m) further into the north side of the trench the limit of the dump was reached. The ash had run out, but there were still some shards. The eastern side of the trench was dug back until the ash had run out there also, although there were still some shards. On the western side of the trench, near the undisturbed shards in Trench I, the dump seam narrowed to 8in. (0.2m), and was about 6ft (1.83m) down. It was made up of a wide variety of figure shards so tightly packed together that there was very little ash separating them, and also pieces intended to be used to complete the models. These varied in size from single leaves, tiny bunches of flowers and grapes, filled baskets and birds in nests, to branching tree trunks and clearly incised bases. About 15% crumbled as they were touched, but the majority are in better condition than their counterparts which were sold as perfect figures 200 years ago. Following the seam, it narrowed to about 2in. (0.05m), and then ran out.

Trench II, 8ft (2.44m) long and 6ft (1.83m) wide, gives an approximate idea of the area the dump covered, except on the south. Because of another foundation, we had to begin a separate trench (Trench III), and again dug under the foundation in order to follow the ash seam. This trench was 2ft (0.61m) wide and 7ft (2.13m) long, and the ash in it was 4ft (1.22m) below the surface and 2ft (0.61m) thick. Most of the shards in it were large, but there was also kiln furniture and part of a mould for a hat, the only mould piece found during this dig.

THE FINDS

Almost all the shards of figures were of glazed porcelain, and many showed the attractive iridescence which forms as the dampness of the soil draws mineral salts to the glazed surface.

It is well known that there were great losses from failed firings during the early years of porcelain manufacture in England, great enough to cause the failure of the enterprise, but handling several thousand shards of failed pieces from just one dump made one so much more aware of the problems.

The shards also showed some of the production techniques used at the manufactory. It was obvious that considerable force would have been needed to smash the figures before they were discarded. This was one of the methods used to attempt to shield the manufactory from competition. Another was the notice given by the second William Duesbury to his workmen in 1787, and again in 1788, that they would be fired if they were found in any part of the manufactory other than their specific work area (Jewitt 1878, 102).

The presence of a number of base shards with an incised letter B would date the earliest use of the dump from *c.* 1770, as biscuit figures 'of the Last Year's Produce' were for sale in April 1771 (Nightingale 1881, 15–36). It is believed that the earliest Derby biscuit figures were made from the same paste as the glazed figures, and marked B to distinguish them from those intended for glazing. However, the fact that B also occurs on known enamelled figures and on glazed base shards in this dump, seems to imply that after biscuit firing these figures were considered to be not of high enough quality, and were reassigned to be glazed and decorated.

Bone was one of a number of materials used experimentally in ceramics in the 18th century, and it was incorporated into the special biscuit body developed at Derby. An extract from a weekly account at Chelsea between 1770 and 1773 (Jewitt 1878, 182), records the price of 'Bone Ashes to Derby'. The bone used had to be strong solid bone — ox bone was best. Several large solid bones were found in the dump.

There were unglazed shards of a very few figures made *c.* 1758, which it would seem likely had been kept as models.

During casting, if insufficient time had been allowed before the excess slip was poured out of the moulds, they attempted to rectify the mistake by adding a second quantity of slip. The two layers failed to adhere on a number of shards and faulty casting was probably the cause of the failure of more figures than has been realised. More than one model of some figures was used with only small differences in the detailing of something like fabric folds, or a different type of sash. Also when an enamelled and a biscuit figure is known of the same model, the shards always matched the enamelled example rather than the biscuit one.

The manufactory had not yet solved some of the problems with the glaze that can be seen on products made there twenty years earlier. On some shards it has only adhered in patches, leaving considerable amounts of the paste exposed, and on others it has run to form a large blob at the lowest part of the figure.

Appropriately we found shards of the stag and its companion doe. A 'Stag at Lodge' is the dominant feature of the arms of the City of Derby, with its first known use in 1446 in the Seal of the Corporation of the Borough (Maxwell Craven *pers. comm.*). In fact one legend of the origin of the name of the town is that when the Romans were camped nearby at Little Chester, Derby was a park stocked with deer — hence 'Deer by' (the town with the deer). Enclosed in such a park is the only way deer would have been known in George III's time, and this model known as the 'Buck–in–the–Park', was popular in Derby porcelain and repeated for many years. The does were also produced for a number of years, but there are several examples extant where they have been given antlers, and pairs of stags recorded in the factory lists (Haslem 1876, 178) suggest that stags were in greater demand.

Work is continuing on recording details of the remainder of the figure shards, and there are moulds for both figures and wares but most of these are in poor condition, being broken and badly eroded. There are also many shards of wares most of which are unglazed, with some decorated in underglaze blue. In addition there is a good deal of kiln furniture, as well as incidental but indicative shards of clay pipes, slipware, finely potted saltglaze, Nottingham–type stoneware and creamware.

Before we began this enterprise, our only interest in this period of porcelain production at Derby was in the way the traditions of the earliest manufactory had been interpreted and developed. However, having recovered such treasure, we now believe the contents of this kiln dump, discarded as useless, may well be of greater value than the perfect products of the manufactory, because of the insight they can give into late 18th–century production at Derby.

ACKNOWLEDGEMENTS

We are grateful to Maxwell Craven, Keeper of Antiquities, Derby Museums and Art Gallery, for information concerning Burdett's Plan and also the earliest known official use of the 'Stag at Lodge'.

The kindness and co–operation that Derby people have always shown us, made it a great deal easier for us to work on this venture, and we are extremely grateful for their help and interest.

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