Archaeological Building Recording at the Atlas Works, Cleveland Works & Washington Pottery College Road Shelton Stoke-on-Trent Staffordshire NGR SJ 87990 46790

Planning Ref.: SOT/47403

Site Code: ACW08/09

Museum Accession No.: 2008.LH.15

Produced for

RENEW North Staffordshire

by

Zoë Sutherland

of

Stoke-on-Trent Archaeology

Bethesda Street, Hanley, Stoke-on-Trent

Staffordshire ST1 3DW

Tel: 01782 235413

Fax: 0172 232500

Email: jon.goodwin@stoke.gov.uk

Website: www.stoke.gov.uk/archaeology

Report No. 280

March 2010

Contents

Non-technical summary

Stoke-on-Trent Archaeology carried out an archaeological building recording at the Atlas Works, Cleveland Works and Washington Pottery, all located on College Road, Shelton, Stoke-on-Trent (NGR SJ 87990 46790). The building recording, which took place between the 28th May 2008 and the 19th May 2009, sought to record the buildings through measured survey, written description and photographic survey and to gain some understanding of their development and changing functions. Subsequently the Washington Pottery, along with the southern and western ranges of the Cleveland Works was demolished and the Atlas Works was refurbished.

The three adjacent buildings were all built in the period 1880 to 1900. The Atlas Works was constructed as an iron foundry and engineering works, but was most recently used as a pottery manufactory. The Cleveland Works and Washington Pottery were both originally pottery factories and the latter building remained as such, although substantially rebuilt and modernised. During the second half of the 20th century the Cleveland Works was occupied by a firm of upholsterers and has most recently been used as a trading estate.

As a consequence of the demands of modernisation and changes in use, all the buildings had been altered to some degree. Fortunately the original buildings had largely been retained and adapted at the Atlas and Cleveland Works and in the Washington Pottery the original east range had been incorporated into the modernised factory, allowing the overall arrangement and development of each site to be understood. The lack of fixtures and fittings within the buildings, however, no doubt removed or replaced according to the needs of each new occupant, left little evidence as to the particular production processes carried out within.

1.0 Introduction

1.1 A planning application was received by Stoke-on-Trent City Council (application SOT/47403) for the redevelopment of land and buildings at the former Atlas Works, Cleveland Works and Washington Pottery, College Road, Shelton, Stoke-on-Trent (NGR SJ 87990 46790) (Figs. 1 & 2). As a condition of planning consent the Local Planning Authority, acting on the advice of the City's Planning Archaeologist, required that a programme of archaeological work be carried out on the site. This was to take the form of a programme of archaeological building recording of the surviving buildings prior to their demolition or redevelopment. Stoke-on-Trent Archaeology was subsequently appointed to undertake the work by the developer, Renew North Staffordshire.

2.0 Scope and aims of the project

2.1 The recording programme was carried out in accordance with a project brief prepared by the City's Planning Archaeologist (Boothroyd 2007) and the Written Scheme of Investigation (WSI) (Goodwin 2008) that was produced for the project in response to this brief. The brief required that the building recording should be carried out to Level 3 standard of the English Heritage guidelines *Understanding Historic Buildings: A guide to good recording practice* (2006), and should comprise drawn, written and photographic elements.

2.2 The primary purpose of the project was to produce a record of the buildings, noting structural elements and phasing evidence illustrative of their development and changing functions. This was to be achieved through a visual inspection and written description, a measured survey with accurate floor plans and elevations, and a photographic survey

2.3 The survey and report were undertaken in accordance with the Institute for Archaeologists' (IfA) *Standards and Guidance for the Archaeological Investigation and Recording of Standing Buildings and Structures* (revised September 2001) and the English Heritage publication *Management of Archaeological Projects* (2nd Edition, 1991).

3.0 Historical background

3.1 The three surveyed buildings were built during the period 1880 – 1900 on the west side of College Road (then Victoria Road), between St Mark's church to the north and

Lawrence Street (then Victoria Place) to the south (Fig. 3). Prior to their construction the site was occupied by a row of four terraced houses at the southern end of the street and by a building which appears to have been associated with Shelton School at the northern end of the site.

3.2 The Atlas Works

3.2.1 A panel over the main entrance on College Road indicates that the Atlas Works was constructed in 1900. It first appears on the 1924 Ordnance Survey (OS) on the plot formerly occupied by Shelton School (Fig. 4). The works was originally an iron foundry occupied, and probably built by Gosling and Gatensbury Ltd, a firm of engineers and ironfounders (Staffordshire Sentinel, 1907). Gosling and Gatensbury specialised as potters' and tile makers' engineers, particularly concentrating on the design and production of tile-making machinery. A power-driven tile press invented by F.G. Gatensbury in 1930 was said to have done much to transform local tile-pressing shops (Jenkins 1967, 148). The firm remained in the Atlas Works until it was taken over in 1977 (Gatensbury 2008). Following the departure of Gosling and Gatensbury the building was used as a pottery works, initially occupied by Rockingham Pottery Ltd. who were established there in 1981 (ukdata) and continued in business there until at least 1988 (Thomson Local Directory 1987-88). The works was most recently occupied by Just Mugs Ltd.

3.3 The Cleveland Works

3.3.1 The Cleveland Works was built in 1880 by William Bennet, an earthenware and graniteware manufacturer of Hanley and Burslem (Henrywood 2002, 69). A panel over the carriage porch indicates this date along with the intertwined initials 'WB' (William Bennet), the architect Ambrose Wood and the builder E. Gibson. An advert from the Staffordshire Sentinel Reference Directory 1907, indicates that the firm specialised in toilet ware and jugs for the home and colonial markets. The Cleveland Works was occupied by William Bennet, trading as William Bennet (Hanley) Ltd. from 1922 until its dissolution in 1937. Thereafter the Coalbrook Potteries operated from the Cleveland Works (Godden 1991, 154-5), manufacturing bone-china brooches and jewellery (Pottery Gazette 1952, 50). The Coalbrook Potteries was last recorded at the Cleveland Works in 1963 (Barrett 1963). By 1968 the works was occupied by a firm of upholsterers, Stubbs W. & F. Ltd. (Yellow Pages 1968) who remained there until at least 1977 (Yellow Pages

1977). Recently the works has operated as the Cleveland Trading Estate, occupied by Project Management Training and Simpson & Co. at the time of survey.

3.4 The Washington Pottery

3.4.1 The Washington Pottery was established by 1900 (Fig. 3), at which time it was operated by the firm of Wardle & Co., producers of earthenware, Parian and majolica wares for home and foreign markets (Henrywood 2002, 240). In the late 19th century, Wardle & Co. introduced striking new designs to their range under the influence of their chief designer, ceramic artist Frederick Alfred Rhead along with his two sons and his daughter Charlotte, who was later to become a celebrated Art Deco pottery designer (Bumpus 1999, 15). In 1904 Wardle & Co. represented Britain at an international pottery exhibition in America (Bartlett 1993, 215). An advert in 1907 (Staffordshire Sentinel, 559) states that as well as producing art pottery in 'useful and ornamental styles and novel decorations', they specialised in art toilet ware, pedestals and pots, Imperial Rockingham, Green Glaze and dentists' requisites.

3.4.2 With the departure of the Rheads in the early 20th century, however, Wardle & Co. fell into decline and the company went into receivership in 1908. It was bought out by J.A. Robinson & Sons Ltd who re-registered the firm as Wardle's Art Pottery, but vacated the Washington Pottery in 1910 (Bartlett 1993, 215).

3.4.3 In 1917 the works was acquired by Swinnertons Ltd., possibly as a subsidiary of their main Vulcan Works on Slippery Lane, Hanley (Niblett 1990, 61). Primarily concerned with the manufacture of earthenware dinner and tea sets, the company reportedly laid out the works, 'on the Continental plan of specialisation for the efficient and economical production of teas and saucers and plates … which the market is demanding in heavy quantities' (Pottery Gazette 1919).

3.4.4 In 1946 the Washington Pottery Ltd. was established at the works and, trading under that name until 1970, manufactured breakfast, dinner, tea, coffee, kitchen and nursery earthenware; sandwich, supper, fruit and salad sets; badged ware; pudding and salad bowls, and teapots (Pottery Gazette 1952). In 1963 the firm was awarded a worldwide licence to manufacture memorabilia for The Beatles pop group, including souvenir plates, chargers, mugs, cups, cream jugs, sugar bowls, egg cups, candy dishes

and cereal bowls (The Sentinel 2009). In 1970 the Washington Pottery Ltd. was renamed English Ironstone Pottery Ltd. and in 1974 English Ironstone Tableware Ltd. (Rogers 2004, 129).

3.4.5 English Ironstone Tableware Ltd. went into receivership in 1994. The mug-making side of the business was sold to Mike Moores who established Just Mugs Ltd. (Hampson 1995, 29). Based at the Washington Pottery, Just Mugs designed and manufactured an eclectic range of earthenware and bone china mugs, soup cups, bowls and coordinated accessories (Just Mugs 2005). When the firm relocated to Longton in 2001 the Washington Pottery was closed and the vacant property was acquired by Stoke-on-Trent City Council in May 2007 (PRE SF345834).

4.0 Methodology

4.1 The survey was carried out between the 28th May 2008 and the 19th May 2009. It comprised a photographic record including the context of the buildings, external views, significant details and internal views where accessible. Photographs were taken on 35mm monochrome print and with a digital camera, using 2.0m, 1.0m and 25cm scale bars as appropriate. A measured plan of the building was made using 30.0m and 5.0m hand tapes and a Leica DISTO™ D2. A record of all structural elements was made using *pro-forma* elevation and room data sheets, with particular attention paid to those details that provided evidence of alterations and additions. The archive is stored at The Potteries Museum & Art Gallery, Stoke-on-Trent (site code ACW08/09, museum accession number 2008.LH.15).

4.2 During the survey, each room or area was assigned a unique reference number (000+ for the basement, 100+ for the ground floor, 200+ for the first floor and 300+ for the second floor. Prefixes A-E were used for the room numbers in each building of the Cleveland Works and prefix W was used for those in the Washington Works). These numbers are used in the descriptions below and are reproduced on the floor plans provided in Figs. 9 – 15.

4.3 The buildings are orientated approximately north-west to south-east along College Road, but for ease of reference site north (taken to be true north-west) has been used in the following text.

5.0 Description and analysis of buildings

5.1 The following text describes the buildings at the time of survey. In March 2009 the Washington Pottery was demolished in its entirety, followed by the demolition of the southern and western ranges in the Cleveland Works (buildings C, D and E, **see 5.4**) in June 2009. Building A in the Cleveland Works has been refurbished and is now occupied by Simpson & Co. The large chimney at the southern end of building B was reduced in height when the Washington Pottery was demolished. This building is currently vacant. In spring/summer 2009 the Atlas Works was completely refurbished and significant internal modifications carried out for use by Project Management Training, formerly resident in the Cleveland Works.

5.2 The Atlas Works, Cleveland Works and Washington Pottery formed a block of industrial buildings on the western side of College Road, towards its northern end (Figs. 2 & 8). The block was bounded on its northern side by Fletcher Street and to the west by Lawrence Street. The Atlas Works was at the northern end of the block, the Cleveland Works was situated in the middle and the Washington Pottery was at the southern end.

5.3 The Atlas Works

5.3.1 The Atlas Works comprised three interconnected buildings ranged around four sides of a former open courtyard which had been covered over with a metal sheet roof supported by steel trusses (Figs. 10 & 11). The northern and eastern sides of the courtyard were occupied by a two-storey L-shaped building constructed with red bricks arranged in an English bond. Moulded brick string-courses extended below the eaves and below the first-floor windows. This building had a pitched slate roof with a central triangular pediment on each façade. The pediment on the Fletcher Street side had a Just Mugs sign fixed to it, partially obscuring the letters 'RO…HAM' painted onto a white background. The pediment on the College Road side was decorated with circular and square moulded bricks in a chequer-board pattern. The main entrance to the works was situated below the pediment on the College Road façade (Fig. 8). A segmental-arched opening accommodated large wooden double doors with a panel above which read: 'ATLAS WORKS A 1900 D' (Plate 1). A single wooden door with a segmental-arched top, allowing pedestrian access to the building, was located immediately to the north of the main entrance. The windows on each façade had segmental-arched tops with brick sills, those on the ground floor were slightly taller than those on the first floor. The

frames were wooden with small square lights and hopper-light openings at the top.

5.3.2 The western range consisted of a tall single-storey building constructed in English bond with red bricks and bonded with the L-shaped building (Plate 2). A modern corrugated iron roof had seemingly replaced an earlier roof structure. The arched windows on the ground floor were of the same design and proportion as those in the adjoining L-shaped building, although those on the northern side were boarded over on the inside and those on the western side bricked up. A short first-floor window with wooden shutters, perhaps used for loading, was probably a later insertion in the northern end of the building. A set of flush-panel wooden double doors on the western side of the building may also have been used for loading.

5.3.3 The final building on the southern side of the courtyard was only visible from within the enclosed courtyard and as such will be more fully discussed along with the internal layout of the works (**see 5.3.9**). In brief, however, it was constructed in English garden wall bond with a pitched slate roof.

The ground floor (Rooms 100 to 111) (Fig. 10)

5.3.4 The rooms within the Atlas Works were all interconnected, having been opened out to a greater or lesser degree to facilitate ease of access throughout the building. The majority of the rooms in the works were working areas with plain brick walls painted white, concrete floors and plaster ceilings.

5.3.5 The carriage entrance off College Road, which provided the principal access to the works, opened into a loading bay within the east range of the L-shaped building. The loading bay was at a lower level than the adjoining rooms (109 and 110) allowing heavy goods to be loaded directly in and out of vehicles without the need for lifting equipment. This lower floor level continued a short distance into room 109, creating a subsidiary loading bay. A RSJ lintel at the head of the doorway between the two areas indicated the doorway to be a later insertion and suggested that room 109 had been altered for use as a loading area. Stacks of cardboard boxes and packing material indicated that room 109 may also have been used for packing wares. The mains gas supply for the building was located in the north-eastern corner of room 109 and had been partitioned from the rest of the room by a wire-mesh barrier. Small square niches, of

unknown use, were built into the northern and southern walls. Both niches were set approximately 2.00m up from the floor and had a metal frame incorporating a bar or grate at the bottom. The brickwork at the back of the northern niche was black and sooty in appearance. The blocked windows in the western wall were positioned in the corner where the east range joined the south range indicating that the south range was built later, the windows having been blocked as a consequence of its construction.

5.3.6 Pedestrian access to the works was via the single doorway off College Road. This entered into a narrow hallway (100) within the northern range of the L-shaped building. Hallway 100 gave access to rooms 101 and 103 on its north side. A flight of wooden steps, a later insertion, at the western end of the hallway ascended to room 201 on the first floor (**see 5.3.11**). A row of three blocked segmental-arched windows were located in the southern wall behind the wooden stairs, originally overlooking the loading bay and courtyard (110). Room 101 was positioned by the main pedestrian doorway with a window in the southern wall, now blocked, which formerly overlooked the hallway. Diagonal scarring along the western wall indicated that the stairs to the first floor had originally ascended from room 101. In contrast with most other rooms in the works, the walls were plastered and artexed, and the windows surrounded by wooden moulded architraves. A small window in the northern wall overlooked room 102, adjoining to the north. Given its location this window may have been a later insertion, but any evidence was masked by the artex wall covering. Room 101 was furnished with a built-in cupboard along the eastern wall.

5.3.7 Rooms 102, 103 and 104 extended the full length of the northern range of the L-shaped building. The wall between rooms 102 and 103 had been almost entirely removed to create one larger space. Room 102 seems to have been used as a small office and was furnished with a desk and with shelves labelled with various ware types (Plate 3). As in room 101, the walls had been plastered and the windows had wooden moulded architraves. Rooms 103 and 104 were probably formerly used as storage areas; pallets of mugs and jars were stacked in room 103 and boxes of unglazed tiles in room 104. A steel beam, supported on cast-iron pillars, spanned the length of room 103 and carried a travelling pulley or lift (Plates 4 & 5). In room 104 the windows in the western wall had been blocked. Access between both rooms 103 and 104, and room 110 had been improved by enlarging doors or altering windows to form doors, presumably following

the enclosure of the courtyard (now room 110).

5.3.8 The western range comprised one large room (111) open to the steel roof structure. The room was occupied by a large kiln (Plate 6). The kiln comprised a rectangular open-ended box measuring approximately 4.5m x 6.00m and constructed with ceramic fibre stacked modules in a steel frame (Watts 2010, pers. comm.). The structure had presumably been closed with doors, but these were apparently missing. A pair of metal rails within the concrete floor, set at a distance of approximately 0.30m apart, extended through the middle of the kiln for the full length of the room. The kiln was gas fired, with the gas and blown air lines connected on its eastern side and vented via flues above, which extended through the roof in room 111. The kiln's relatively short length would suggest that it was an intermittent truck kiln into which a kiln truck, bearing refractory shelves loaded with wares, would be placed (Rado 1969, 105). The kiln probably operated on a shuttle system in which a truck of fired wares would be removed from one end and unloaded whilst a pre-loaded truck would be placed in the kiln for firing from the other end (Watts 2010, pers. comm.). Steel beams, supported on rows of brick pilasters, extended along both the eastern and western walls in room 111. These carried an overhead crane that was able to run the full length of the room (Plate 7). Such equipment, designed for lifting heavy machinery, was probably associated with the works' first use as an iron foundry. Doorways in the eastern wall, all later insertions, allowed direct access to room 110.

5.3.9 The southern range included two rooms (105 and 106), both open to room 110, with adjacent toilets (107 and 108). Moulds and barrels of glaze remained in room 105 suggesting it was used as a store or workshop when the building functioned as a pottery factory. Both the female and male toilets, 108 and 107 respectively, were at a lower level than the other rooms in the works. The male toilets (107) were accessed via steps behind a partition in room 106. The 1930s' style door to toilet 107 corresponded well with the suggestion that the south range was of a later construction than the rest of the works. The female toilets (108) were accessed from room 110, with a short flight of steps to accommodate the difference in floor level between the two areas.

5.3.10 The former courtyard, room 110, had been incorporated into the works with the addition of a roof constructed with steel trusses (Plate 8). The room contained a large

mangle-dryer at its western end (Plate 9). All the surrounding rooms were directly accessible from this area, the surrounding windows in the north and east ranges having been converted into doors and new doorways inserted into the south and west ranges.

The first floor (Rooms 200 to 211 and A200 to A203) (Fig. 11)

5.3.11 The first floor extended over the L-shaped block and the southern range (rooms 200 to 211). Several first-floor rooms in the northern range of the Cleveland works (building A) had also been incorporated into the Atlas Works (**see 5.4.4**). The L-shaped block contained a mixture of workshops and offices. Rooms 200 and 201 extended much the length of the northern wing, providing a large working space. Originally they formed one room, but had subsequently been divided by a stud-partition. The windows originally overlooking the courtyard to the south had been blocked in both rooms, as had the two windows in the western wall of room 200. The reasons for blocking the former courtyard windows are unclear, giving no obvious advantage. The blocking of the latter two windows would suggest that the western range was built at a later phase than the L-shaped block. The west range was constructed across the lower two-thirds of the windows, either as a result of its later construction or some substantial alteration. As in rooms 101 and 102 on the ground floor, the walls in rooms 202 and 203 were finished with plaster and the architraves around both doors and windows were moulded. The higher level of finish in these rooms would suggest that they were intended as offices or public spaces rather than workshops. The position of the original stair from the ground floor was marked by an area of repair to the floor on the western side of room 202. The stair was probably enclosed from rooms 202 and 203 by a partition, indicated by scarring on the western and southern walls in room 202. Scarring also showed the position of a former partition in the north-eastern corner of room 203, which had enclosed a toilet now only identifiable by a redundant waste pipe.

5.3.12 Within the eastern arm of the L-shaped block, room 204 had been sub-divided by stud-partitions to form a series of smaller rooms (205 to 209). Room 204 remained principally as a circulation area connecting the rooms in the eastern range with those in the north and south ranges. The windows originally overlooking the courtyard on the western side of room 204 had been bricked up. Of the original features, only a trap-door positioned over the loading bay remained on the eastern side of the room. The function of many of the smaller rooms was uncertain although, a sign attached to the wall in room

207 which read 'GENTS OUTDOOR CLOTHING', suggested that this room was, at least latterly, used as a changing room. Room 208 was furnished with desks and a plan-chest containing transfer designs, and could be identified as an office.

5.3.13 Further workshops space was located in rooms 210 and 211 in the southern range and several work-benches remained in the latter space. As in the northern range, rooms 210 and 211 were once a single large space subsequently subdivided with a stud-partition. The windows in both rooms had been blocked, including the windows overlooking the former courtyard, although these had been the only source of natural light for the room. The blocked window between rooms 209 and 210, visible at the eastern end of 210, was probably blocked when the southern range was built against the L-shaped block as in room 109 on the ground floor. A blocked door was present in the western wall of room 210 suggesting either that the southern range had previously extended further to the west or that it once had external access. Access to the first-floor rooms formerly belonging to the Cleveland Works (**see 5.4.4**), had been created through the southern walls of both rooms 210 and 211.

5.4 The Cleveland Works (buildings A, B, C, D and E) (Figs. 9, 10 & 11)

5.4.1 The Cleveland Works comprised five buildings arranged around a central courtyard. The northern and eastern sides of the courtyard were occupied by two adjoining buildings, buildings A and B respectively, both belonging to the original factory complex. Building D, also likely to be one of the first factory buildings, occupied the western side of the courtyard. Building C had been built at the southern side of the courtyard during the late 20th century. Building E, a lean-to garage built against the northern end of building D, was also of later construction.

Building A

5.4.2 Building A was a two-storey building constructed with reddish-brown bricks in an English bond (Plate 10). The building had a pitched slate roof, gabled at its western end and joined to the building B roof at its eastern end. The windows had blue-brick segmental arches and blue brick sills. The frames were wooden casements with fixed lights below and top-hung opening lights above. Original doorways had blue-brick segmental arches and those that had been altered or were later insertions had concrete lintels. The single doors on the ground floor were wooden flush-panel and the example

on the first floor was a traditional four-panel door. The double doorways both had ledged, braced and battened doors. A flight of covered brick steps at the eastern end of building A, between it and building B, ascended from the courtyard to the first floor. Metal steps, also accessing the first floor, had been attached to the southern elevation at the western end of the building.

The ground floor (rooms A100 to A104) (Fig. 10)

5.4.3 The ground floor in building A was originally one large space, subsequently subdivided into smaller workshops (A100 to A103) by the insertion of north to south aligned breeze-block walls. All the rooms had exposed brick walls which had been painted either white or grey. The floors were laid with concrete, although traces of an earlier blue-brick floor were visible below the concrete at the western end of room A100. By the time of survey the ceiling had been removed to reveal the ceiling joists with scissor-braces between them. Little evidence of how the rooms had been used remained, although room A103 was used as a workshop by a number plate manufacturer, Simpsons & Co., until late 2008. External access to the building had been improved with the insertion of a door in room A100 and one into room A101. Building B may originally have been accessible via a door, now blocked, in cupboard A104 at the eastern end of room A103. Building A, however, had no internal access between the ground floor and the first floor. The first floor could only be reached via the external steps at the west end of the building.

The first floor (rooms A200 to A203) (Fig. 11)

5.4.4 The first floor rooms in building A had been incorporated into the Atlas Works (**see 5.3.13**). The space consisted of one large room (A200), which was probably used as a workshop or store. A double-door at the western end of the room would have allowed goods to be loaded in and out (Plate 11). The eastern end of room A200 had been subdivided into two small rooms (A202 and A203) and an access lobby (A201). Lockers in room A202 suggested that it was used as a changing area or rest room, while room A203 may have equally well been used for a changing room or an office. An inserted doorway at the west end of room A200, with a concrete lintel and evidence of repaired brickwork around the jambs, opened onto metal steps which descended into the courtyard. The original access to the room, via the covered stairs at the east end of the building, had been blocked.

Building B

5.4.5 The College Road face of building A was constructed in red bricks in an English Bond (Fig. 8, Plate 12). The lower courses of the building were constructed in blue bricks and the eaves decorated with a stepped brick cornice with corbelled decoration. Courses of blue bricks level with the head of the ground- and the first-floor windows gave some further decoration. The windows on the basement and ground floors both had segmental arches. Those arches on the basement level were constructed with red bricks outlined in blue brick, as those on the ground floor probably were, although they had since been painted. The first-floor windows had straight stone or concrete lintels, again painted. The window sills on all floors were stone or concrete and had also been painted. The window frames were wooden with small panes and hopper-light openings at the top. The carriage porch entrance to the works was a wide moulded-brick archway containing a set of tall wooden double doors. This part of the building was made prominent by its slightly greater height and was decorated with a panel inscribed with '1880 CLEVELAND WORKS', flanked by the intertwined initials 'WB'. Above the date was: 'AMBROSE WOOD. ARCHITECT' and 'E.GIBSON. BUILDER'. A large chimney was located at the southern end of the range.

5.4.6 The western elevation of building B, seen from within the courtyard, had a much plainer appearance. As with building A, it was constructed with reddish-brown brick in an English bond, although the lower half of the building had been painted white. Most of the windows on this elevation were the same as those seen in building B. A wooden framed oriel window, however, was located in the corner between buildings A and B. This was a two-sided bay constructed in wood and supported on a wooden bracket. The original doorways in building B had segmental arches and were hung with flush-panel wooden doors, also similar to those seen in building A. The large double door towards the northern end of the elevation had a steel lintel, suggesting it was a later insertion. No trace of this door could be seen within the building, which had probably been boarded over and plastered.

The basement (rooms B000 to B006) (Fig. 9)

5.4.7 The basement in building B was accessed via external stairs towards the southern end of the west elevation which entered a large principal basement room (B002). In

common with the other rooms in the basement, room B002 had painted brick walls, a concrete floor and a brick vaulted ceiling. Scarring on the floor and on the eastern and western walls, indicated the position of a former partition which had once separated the entrance from the rest of the room. A series of open-fronted rooms (B003 – B006), to the north of room B002, occupied the north-western corner of the basement. Two of the smaller rooms, B003 and B004, had scars on the northern and southern dividing walls towards their eastern end, indicating former partitions which had more fully enclosed the rooms. A window overlooking room B002 had been inserted into the south wall of room B003. The northernmost room, B006, contained a wooden stairway giving access to the ground floor. The conjunction of the stairway with large double doors in the north wall of the ground floor would suggest that the stair was a later insertion. Further rooms (B000 and B001) at the southern end of the basement each housed a gas or oil fired boiler with manufacturer's stamp 'ROBIN HOOD'. Both boilers vented into the large chimney in the south-eastern corner of room B000. A semi-circular arched fire-mouth, subsequently bricked up, featured on each face of the chimney (Plate 15).

The ground floor (rooms B100 to B116) (Fig. 10)

5.4.8 The ground floor of building B had been significantly altered in the course of its recent use as an office building. The part of this floor to the south of the carriage way was subdivided with modern stud-partition walls to create offices B103, B105, B106 and B108, photocopy room B104, and board room B107, all accessible from a north - south aligned corridor (B100) that extended along the west side of the building. A wooden stair to the first floor (B200), probably a later insertion, located at the southern end of the corridor was also enclosed by stud-partition walls. The rooms were all equipped with modern office furniture and were simply decorated with painted or papered walls (sometimes juxtaposed with an exposed brick wall), suspended tile ceilings, and carpeted or wood laminate floors (Plate 16). Modern flush-panel doors, some with glazed upper panels, closed all rooms. Further subdivisions had been made at the northern end of corridor B100 in order to create male (room B111), female (room B110) and disabled toilets (B109). The northern wall common to all three toilets represented the only original dividing wall seen within this part of the building. The space to the north of this wall had also been subdivided, in this instance by a breeze-block wall, to create a storeroom (B112) behind the northern stair to the basement. A blocked doorway in the southern wall of B112 indicated where access to the rooms to the south had previously

been placed. A modern single-storey brick extension on the west side of the building provided additional toilet facilities (B101) and a small kitchenette (B102).

5.4.9 The ground-floor rooms on the north side of the carriage entrance formed a separate part of the building with its own external access. An external door on the north side of the carriage entrance entered into the hallway (B114) with an original staircase to the first floor occupying the south-east corner. The staircase, with stone steps, decorative wrought-iron balusters and wooden handrail, must have provided the only internal access to the first floor of building B prior to the insertion of the stairs off corridor B100 at the south end of the building (Plate 17). An office (B116) and toilet (B115) were also accessed from B114. Office B116 was furnished with desks and shelves, was decorated with anaglypta wall paper and had a carpeted floor. A large cupboard had been built into the recess on the east side of the chimney breast. The original moulded architraves remained around both the doorway and the windows, although the former had been replaced with a modern flush-panel fire-door.

The First Floor (rooms B200 to B212) (Fig. 11)

5.4.10 The first floor of building B had been subdivided by stud-partition walls into a series of offices (B204 to B208) leading off a north-south aligned corridor (B203) extending along the west side of the building, in much the same way as the ground floor had been. The inserted staircase at the southern end of the building opened into a canteen (B201), with kitchen units built in the north-west corner of the room, and an adjoining smoking room (B202). Double doors in the south-western corner of room B201 opened into an enclosed bridge connecting building B with building C. Corridor B203 and all the offices were accessed via the canteen and smoking room at the south or via the original staircase at the north end of the building. Two further rooms were located to the north of the original staircase, namely B212, an office accessed from the landing at the head of the stairs, and B210 a store room at the end of corridor B203. The stud-partition wall dividing the two rooms would suggest that they originally formed one single room. The larger room B212 had a chimney breast on the northern wall and retained the original sliding-sash windows. The original moulded architraves surrounding the doorway also survived although the door itself had been replaced with a flush-panel fire-door. Shelving fixed to the south wall suggested that the room had been used as an office. An oriel window located outside rooms B210 and B211 in the corner between building A

and building B was ideally placed to overlook the courtyard below (Plate 18). Aside from the brick walls to the north and south of the original stair, the only evidence remaining for internal dividing walls on this floor, prior to the modern stud-partitions, was a stub wall opposite rooms B206 and B207, probably the remnant of an earlier partition. The position of this stub wall also coincided with a change in floor level, perhaps formerly a boundary between two separate areas within the building.

Building C

5.4.11 Building C was constructed with red brick in a stretcher bond and had a flat roof (Plate 19). The windows were wooden framed and had concrete lintels on the ground floor. Elsewhere both the sills and lintels were integral with the wall. All but one of the windows on the west elevation had been bricked up. The window remaining on the first floor of the west elevation had repaired brickwork below the sill, indicating replacement or perhaps the adaptation of a door into a window. The external doors included two flush-panel fire-doors and a metal roller shutter on the westernmost doorway in the north elevation.

The ground floor (rooms C100 to C104) (Fig. 10)

5.4.12 The ground floor of building C essentially comprised one large workshop. At the time of survey this was occupied by Simpson & Co., makers of car registration plates. The ground floor rooms had painted brick walls and concrete floors and ceilings. The principal access to the building was via a door at the eastern end of the building which entered into lobby/stairway C100. The metal stairs to the first floor were separated from the main workshop to the west by a breeze block wall, probably a later addition. The space underneath the stairs in the south west corner of the building had also been enclosed by breeze block walls in order to create a transformer room (C104) with separate external access. The main workshop room (C101) had a customer counter, partially screened from the rest of the room in the north-east corner and blocking direct access into the room from C100. At the west end of room C101 the blocked windows, also visible externally, were evident. Further breeze-block partitions had been constructed on the south side of the room to create a small office C102, and in the north-west corner to enclose a second stairway (C103).

The first floor (rooms C200 to C208) (Fig. 11)

5.4.13 The first floor of building C again contained one large space C200, which had been subdivided with stud-partition walls into a series of small units ranged along each side of the room. The larger room (C200) had concrete floors and ceilings and painted brick walls. A wooden-framed fixed-light internal window overlooked stairway C100 at the east end of the building. The doors from each stairway were both flush-panel fire-doors with narrow rectangular glazed sections at the top. At the time of survey, room 200 contained a wooden staircase with turned balusters and comprising several small flights and quarter-landings, which had been constructed as a practice piece. This was positioned against the southern wall towards the eastern end of the room.

5.4.14 Six smaller rooms (C201 – C206) were ranged along the northern wall of the building and two (C207 and C208) were built against the southern wall. The rooms had a mix of modern six-panel wooden doors and four-panel doors with glazed upper panels. Wooden-framed casement windows had been fixed in all the dividing walls. The great variety of paint types and colours used in each room would suggest that these small rooms were constructed as practice areas used in the teaching of painting and decorating techniques (Plate 20).

Building D

5.4.15 Building D, on the western side of the courtyard was built in a mixed garden wall bond with a pitched grey clay-tile roof (Plate 21). The reddish-brown bricks had been painted grey in more recent years. The building had the same style of brick window sills and segmental arches as buildings A and B, suggesting that they were contemporary. The window frames were wooden with fixed lights. The ground-floor external doors were flush-panel fire-doors and the garage at the north end of the building had a metal roller door. A metal stair at the southern end of the east elevation ascended to a wooden ledged, braced and battened door, boarded on the exterior. The window adjoining this door had a concrete lintel, suggesting that it had been altered. One of the original doors on the east elevation had been bricked up. Scarring towards the north end of the east elevation indicated that the building had originally projected eastwards at this point. The lintels and sills of the first-floor windows in this section of building looked to have been altered, perhaps in consequence of the removal of this projection. Below these windows, the lintel of the garage door had been changed from a segmental brick arch to a timber

lintel. The exterior of the lintel over the double doors on the ground floor had also been altered. A truncated wall, extending eastwards from the southern end of the east elevation, with a ground-floor door and first-floor window still evident within it, indicated that the original factory layout had included a southern range.

The ground floor (rooms D100 to D104) (Fig. 10)

5.4.16 The ground floor of Building D had been used as a gym, although most recently it was used to store ink and toner cartridges. A large room at the southern end of the ground floor (D100), with its own external access, had been fitted with laminate wood flooring and furnished with exercise machines (Plate 22). The walls were painted white and a suspended tile ceiling had been inserted. The chimney could be seen rising in the south-western corner, but there was no indication of any openings for a fire-mouth. A small blocked aperture, only 0.67m tall, with a segmental-arched head was present towards the north end of the eastern wall. The middle part of the building was subdivided into a separate entrance hall (D101), also accessible from D100, and two shower rooms (D102 and D103). The dividing breeze-block walls had been painted white and the floor covered with black and white vinyl tiles. The ceiling in rooms D101 to D103 had been fitted out with suspended tiles as in room D100. The bricked-up door present in the eastern elevation was presumably blocked as a consequence of the alteration carried out in this space.

5.4.17 The northern end of the ground floor was occupied by room D104, accessed primarily via the garage-style roller door on the east side of the room. A wooden stair positioned along the northern wall and ascending from the north-eastern corner, immediately to one side of the door, gave access to the first floor. The awkward position of the stair in relation to the door would suggest that the stair was a later insertion. A rectangular hole in the middle of the room had been filled with concrete blocks. Although its depth could not be confirmed, the top of a metal ladder seen at the west end of the hole may indicate cellar access.

The first floor (room D200) (Fig. 11)

5.4.18 The first floor of building D comprised one large room (D200), divided from the stair at the northern end of the building by a wooden-boarded partition (Plate 23). The wooden floor boards at the northern end of the room ran in a different direction to the rest

of the room, perhaps as a result of repair or as a consequence of the insertion of the stairs. The chimney in the south-western corner, also visible on the ground floor, had a small opening and tiled hearth on its eastern side. The small size of this opening, which also faced across the room rather than down the length, could point to a later adaptation of the chimney. The chimney may originally have served a stove or a more industrial function.

Building E

5.4.19 Building E comprised a single-storey timber and steel shed or garage structure built as a lean-to against the western boundary wall of the works, butting against the northern end of building D (Fig. 10, Plate 24). The structure had timber cladding and a corrugated (asbestos?) roof. Two double doors fitted with metal roller doors gave access to a single room (E100). The room had concrete floors and painted walls. No significant furnishings remained in the rooms, which may have served previously either as a garage or a store.

5.5 The Washington Pottery

5.5.1 The Washington Pottery was a three-storey, predominantly 20th-century building, with basement, situated on the corner of College Road and Lawrence Street. The building included a 19th-century element, visible on the eastern elevation (Fig. 8). This once formed the east range of an earlier courtyard pottery. It was built with red brick in a Flemish bond, with a course of dog-tooth brickwork just below the eaves giving the only decoration. The windows had segmental brick arched heads and stone sills. The window frames were wooden casements on the ground and first floors and sliding-sashes on the second floor. The basement windows had timber lintels and plain brick sills. The repaired brickwork surrounding them, indicated by its lighter colour, would suggest that the windows had been altered or were later insertions. Repaired brickwork to either side of a blocked door on the east elevation indicated that the door had been converted from a window. The carriage entrance with elliptical arched head at the north end of the elevation had been integrated with the modern glazed shop-front on its northern side. Small windows had been inserted above the shop entrance and a painted sign indicated: 'JUST MUGS LIMITED. RECEPTION, SHOWROOM & OFFICES'.

5.5.2 The original 19th-century building was redeveloped during the 20th century and modern buildings were added to the site, leaving the original courtyard much reduced.

Two of the modern buildings were evident on the southern and eastern stretch of Lawrence street (Plate 25). The corner block was constructed with red brick in Flemish bond and had a flat roof with a slight parapet. Continuous bands of metal-framed windows with continuous narrow concrete sills and lintels extended along the long elevations on both College Road and Lawrence Street at ground-, first- and second-floor level. The space between the bands of windows was constructed in blue bricks with projecting bricks in a checkerboard pattern. One of the first-floor windows on the College Road façade had been blocked with brickwork in a similar decorative pattern. A blocked door in the equivalent position in the factory building on the opposite side of the road suggested that at some point the two had been connected via a foot-bridge. The basement windows were spaced at regular intervals below a projecting concrete string course. Single windows appeared on the corner elevation, although those on the ground floor and basement level and been bricked up. A single boarded-over door would originally have given access to the basement part of the building.

5.5.3 The second modern block faced onto both the southern and western sections of Lawrence Street (Plate 26). It was constructed with red brick in English garden wall bond and had a pitched roof covered in corrugated metal sheets. The windows had upvc frames, brick sills and concrete lintels that formed a continuous band around the block. Several windows on the western elevation had been bricked up. The western elevation also included double loading doorways on the ground-, first- and second-floor levels, a ledged, braced and battened door remained within one of the first-floor apertures and a metal roller door within one of the second-floor doorways. Further single doors on the first floor had been blocked. The main entrance to this block was via a single door on the southern elevation. A row of small square windows above the door had been blocked. Two further gated doors on the southern elevation gave access to a semi-basement level. A section of older, browner brickwork at the north end of the western elevation, with a straight joint between it and the rest of the wall, may have been a remnant of one of the earlier factory buildings.

5.5.4 The various phases of building had been opened out internally to form a large open plan space on each of the principal floors. The majority of the building was constructed with steel beams on concrete columns with concrete panel ceilings. The steel roof trusses were exposed to view on the second floor. The floors were concrete and the brick walls

were painted cream or white. In the remaining 19th-century parts of the building the floors and roof trusses were wooden. The smaller rooms (offices, toilets and small workshops) were generally concentrated within the 19th-century portions of the building and in most cases had been subdivided from larger areas by means of stud-partitioning. Few traces of room divisions prior to the layout seen during the recording programme were seen.

The Basement (rooms W001 to W007) (Fig. 12)

5.5.5 The basement floor in the Washington Pottery was located below the former east range and extended beneath the corner block represented by area W106 on the ground floor, W215 on the first floor and W315 on the second floor. The basement was reached via brick steps in area W100, which descended to room W001, or via either the lift or an external entrance door at the south end of the building, both within room W007. Room W007 had also formerly been accessible via a concrete set of stairs (built against the south side of the lift in room W007) which descended from area W106.

5.5.6 Room W001 extended north to south below ground-floor area W107. A line of concrete columns extended down the middle of the room, which had functionally been divided into two by the insertion of brick walls creating two smaller rooms, W002 and W003, on the eastern side of the space. Room W002 contained rolls of clay, but whether or not these remained from a former production process was unclear. A large plastic water tank remained *in-situ* against the east wall at the south end of room W001, with pipes extending from it through roughly made apertures in the south wall and connecting with blungers in room W007 on the opposite side. A low brick wall heightened with plaster board had been built against the west wall of room W001 to form a small enclosure in which a large number of 'green' mug handles had been deposited. Rooms W004, W005 and W006 on the west side of the basement seemed to belong to the older part of the factory. Room W005 had a brick floor and contained a large water tank at its western end. Further water tanks were contained within W004; a brick barrel-vaulted chamber accessible only via arched window-like apertures in its southern wall (Plate 27). Plastic pipes connected the tanks in rooms W004 and W005 and exited the area via an internal window in the southern wall of room W005. Room W006, on the south side of room W005, was furnished with shelves and a bench and had the appearance of a small workshop.

5.5.7 Room W007 in the basement was latterly used as a clay preparation area. Two blungers, used in mixing clay with water to make slip, were located at the northern end of the room. The pipes extending through the north wall from the water tank in room 001 fed into both blungers. An octagonal concrete tank adjacent to the blungers in all likelihood was used to store the slip (Plate 28). Pipes bearing traces of slip extended from the tanks and through the ceiling to the upper floors. The east side of the room may have contained other tanks and mixers, but the large amount of clay slip and debris in this area made further investigation unsafe. A mobile mixing tank was also situated on the west side of the room with plastic pipes containing traces of slip protruding from it.

The ground floor (areas/rooms 100 to 107) (Fig. 13)

5.5.8 Access to the ground floor was primarily through the original carriage entrance (W100) on the College Road side of the building (Plate 29). This part of the building was at a lower level than the surrounding areas in order to provide additional height for vehicular access. Although a more confined space that the original courtyard plan, area W100 would have been adequate for the loading and unloading of goods. The original loading doors to area W107 on the south side had been blocked. The room (W101) to the north side of the carriage porch had been furnished as the factory reception area. The floor level in this room mirrored that in the carriage entrance, and this greater height had been made use of with the insertion of a mezzanine level (W101a), containing male and female toilets accessed from the reception via open wooden stairs (Plate 30). Room W102, also on the north side of the carriage porch had a similarly low floor level and a mezzanine level had also been inserted. The lower room was used to house fuse boxes and switch gear screened by stud-partitions and the mezzanine level (W102a) above it contained wooden slatted shelves. A concrete staircase to the upper floors had been inserted in the space between the two rooms. To the south, the carriage entrance opened out into a small courtyard and to a ladies' toilet area (W103), and to the west into areas W104 to W107. Alternative pedestrian access into the building was at the south end of area W105, at the foot of a second set of stairs ascending to the first and second floors. The upper floors could also be accessed via external metal stairs in the courtyard, although these may have been primarily utilised as a fire escape. Access to the basement was via enclosed steps in area W101. Goods could be transported to the upper floors by means of two lifts, one in area W106 (which also accessed the basement) and one in area W104.

5.5.9 In addition to the east elevation, elements of the original 19th-century building were indicated by blocked windows with segmental arched heads and stone sills on the eastern and southern sides of the courtyard, seen internally within areas W106 and W107 (Plate 32). This confirmed that area W107 formed the original eastern range of the factory and suggested that the northern side of area W106 (between the courtyard and the northernmost row of columns) represented the original southern range. The southern wall of the courtyard, formerly belonging to the south range, extended westwards as far as areas W104 and W105.

5.5.10 The ground floor contained some traces of pottery production, principally a kiln on the western side of area W104 (Plate 31). The kiln measured 10.00m x 3.80m and was of similar construction to that seen in the Atlas Works (see **5.3.8**) with ceramic fibre modules in a metal frame. A pair of metal rails, set at approximately 1.00m apart, extended through the kiln and across areas W104 and W105. A large door remained at each end of the kiln, allowing one truck of ware to be unloaded and re-loaded for firing whilst the other was fired, as in the Atlas Works. No obvious evidence either for how the kiln was fired or vented remained. Charts on the wall in area W106 listed glaze stock (Plate 32), perhaps indicating that pottery was glazed on this floor. Pipes carrying slip passed through the eastern half of area W106, extending from the basement area and through to the upper floors. The reason for circular scars in the floor identified in both areas W105 and W107 could not be determined.

The first floor (areas/rooms 200 to 222) (Fig. 14)

5.5.11 The first floor was arranged on similar lines to the ground floor, largely being open plan with subdivision of the space into smaller rooms concentrated in the former east range of the building. As on the ground floor, traces of the original eastern and southern ranges could be identified by means of blocked windows and doors on the south and east sides of the courtyard.

5.5.12 Remaining traces of production were concentrated in area W201 and W202 on the western side of the building. Area W202 was furnished with long benches, on one of which a decorator's turntable remained. Adjacent to the benches, bins containing 'KERAM BLUE GERMAN PLASTER' were presumably used in mould making and the

nearby shelves may have been used to store the finished moulds (Plate 33). Slip casting may also have taken place on this floor due to the presence of pipes seen in area W215. The nearby drying rooms in area W201 may have been used either to dry either the ware or the moulds after use (Plate 34).

5.5.13 The former east range of the factory was occupied by a series of offices (rooms W205 – W211) (Plate 35). Room W205 at the northern end of the building had brick walls and probably constituted one of the few original rooms remaining from the older factory layout. The room had been lined with wooden panelling and the floors had been carpeted. The room was also distinguished by an en-suite bathroom, which had been created at its west end. The remainder of the offices were later additions, subdivided from a larger space with stud-partition walls. The rooms were all painted in pale colours and closed with flush-panel doors. A coded entry system on the door into room W209 restricted the access from the main factory floor and a sign on the door into the connecting hallway and stairs indicated that at least some of the rooms were used as personnel offices. The large number of sockets seen in room W207 may suggest that it housed a number of computers. Open wooden stairs in the hallway, likely a later insertion, connected directly with the small rooms on the second floor suggesting that they were associated in use. Three further rooms (W212 - W214) neighbouring the personnel offices, but directly accessible from area W215, may have served as supervisors' or managers' offices. Offices W216 to W220 on the south side of area W215 may have served a similar function.

5.5.14 Some provision for welfare was made on this floor of the building. Female and male toilets (rooms W203 and W204 respectively) were located on the north side of the courtyard and were associated with rooms marked as 'outdoor clothes areas', presumably changing rooms or cloak rooms. The two larger rooms (W221 and W222) on the south side of the courtyard, also subdivided from the main working area by stud-partition walls, may have been used as offices, rest rooms or smaller workshops. Room W222 was furnished with a large blackboard on the western wall suggesting that it was used in training or induction.

The second floor (rooms W300 to W318) (Fig. 15)

5.5.15 The second floor of the Washington Pottery again followed a similar plan to that

seen on the lower floors. In the open-plan section, slip pipes were noted on the east side of the building in area W315 (Plate 36). A kiln was situated in area W301 on the west side of the building (Plate 37). The kiln was 6.00m x 5.00m and constructed in similar manner to that seen on the ground floor and also to the example in the Atlas Works (see **5.3.8**). It was, however, open on the south side and closed on the north, although as seen in the other examples, the metal rails, set at 3.00m apart, extended beyond each end of the kiln. The kiln may have been missing a door or the kiln truck may have been furnished with a permanent end wall, acting as a door for the kiln (Rado 1969, 105). The continuation of the rails beyond the closed end of the kiln may suggest that it replaced an earlier structure. The method for firing the kilns was unsure, although the holes left on the eastern side of the kiln may be indicative of gas line connections. A metal flue extended from the top of the kiln and through the ceiling in this area. An enclosed area on the south side of the courtyard seems to have formed a smaller workshop comprising rooms W316, W317 and W318. Room W316 was furnished with free-standing wooden shelves and a small booth, probably to extract vapour or dust whilst colour-spraying or fettling. A rectangular area with sunken floor level spanned the width of room W316 at its southern end. Large apertures or doorways at either end of this area, with rough brickwork on the jambs, suggested the former location of a large piece of equipment or machinery.

5.5.16 As before, the smaller rooms were concentrated on the east side of the building and had been constructed with stud-partition walls. Although the smaller rooms had no remaining furniture, their size and association with the personnel offices on the first floor, would suggest that they were also used as offices. Room W311 was furnished with recessed shelved units in blue and purple with metal finish surrounds, which probably served as display shelving (Plate 38).

5.5.17 Once again traces of the original east and south ranges remained on the south and eastern sides of the courtyard with blocked windows visible from within the courtyard and in area W314. The southern wall of the south range also remained on this floor, identified by a metal tie on the south side of the wall between area W315 and room W316, and the wall between areas W300 and W302. The remaining extent of the northern range corresponded with the timber roof structure over area W303. The junction between the roof structures was somewhat haphazard at this point as one of the

original timber roof trusses had been left unsupported at its southern end. Of the newer blocks, the concrete roof in area W315 described the extent of the corner block. Areas W300 and W301, both belonging to the Lawrence Street block, had steel roof trusses although the original steel trusses with the collar beam slanted up at each end to meet the principal rafters, as seen in area W301, had been replaced with plain triangular trusses when area W300 was re-roofed. Two further varieties of steel truss were seen, one type in area W302 and one in area W304, suggesting they each belonged to a different building phase. The external sill detail seen in room W305 on the windows between this room and W305 would suggest that W305 was one of the later additions to the factory, having at least been built after area W302.

6.0 Phasing and discussion

6.1 The Atlas Works (Figs. 16 & 17)

6.1.1 ***Phase 1 (1900 - 1924)*** The Atlas works was built by Gosling and Gatensbury Ltd., potters' and tile-makers' engineers, as an iron foundry. The date over the main entrance suggests a construction date of 1900.

6.1.2 The works first appear on the 1924 OS map as four buildings ranged around a rectangular courtyard (Fig. 4), a recognised arrangement in some 19th-century foundries (Stratton and Trinder 1997, 82). Of the buildings represented on the 1924 OS map the northern and eastern ranges, of one build and bearing the date 1900 over the main entrance, were clearly the first to be constructed. Structural evidence indicates that the western range was constructed across the windows in the west end of the north range (rooms 104 and) and was, therefore, a later development, although probably not much later given the similarity of style to the eastern and northern ranges.

6.1.3 The western range can be identified as an erecting shop, 'a high building divided into bays for the assembly of new machines' (Stratton and Trinder, 1997, 82). Within, room 111 was equipped with an overhead bar crane used for lifting sections of the machines. The construction of this range might relate to an increased focus on the engineering element of the business. Smaller cranes or lifts were also seen attached to steel beams in room 103 on the ground floor.

6.1.4 The rooms in the north-east corner of the building (rooms 101, 102, 202 and 203) seem to have been designed as offices and to have continued in use as such. These rooms originally featured fireplaces and also had a higher level of finish than seen elsewhere in the works, with plastered walls and moulded architraves surrounding windows and doors. Given the position of these offices at the front of the building next to the main entrance and the original stairs to the first floor, evident as scarring within room 101, it seems that they were located to facilitate observation of those leaving and entering the site.

6.1.5 At this period an engineering works and foundry may also have included a foundry (probably using a cupola furnace), smith's hearths and machine shops powered from a steam engine (Stratton and Trinder 1997, 82). Unfortunately evidence to suggest where these might have been located could not be identified within the surveyed building, presumably this was lost in the course of upgrading to electrically driven machinery and in the eventual change from foundry and engineering works to pottery factory.

6.1.6 ***Phase 2 (1924 - 1937)*** The Atlas Works appears almost unchanged between the 1924 and the 1937 OS maps (Fig. 5). The carriage entrance is depicted on the 1937 OS edition, although as there was nothing in the surviving structure to suggest a re-build, this can be regarded as an omission on the earlier map. No structural changes belonging to this phase were identified during the survey.

6.1.7 ***Phase 3 (1937 - 1950)*** The southern range had been altered by the time it was depicted on the 1950 OS map (Fig. 6). A room is outlined at the east end of the range and this seems to correspond with toilet block 107 and 108. A projecting block with external stairs is indicated at the west end of the range, but no evidence relating to this structure was identified on site. Whether the south range was completely rebuilt between 1937 and 1950 or the existing range was modified remains unclear.

6.1.8 ***Phase 4 (1970 – present)*** The Atlas Works remained in use as an iron foundry, occupied by Gosling and Gatensbury Ltd., until 1977. Following this the site was used as a pottery factory, occupied initially by Rockingham Pottery Ltd. and latterly by Just Mugs Ltd., who also owned the Washington Pottery towards the southern end of College Road.

6.1.9 The more obvious modifications to the building observed during the survey probably relate to this phase of occupation. As a pottery factory, it seems that further space was required within the works and this was achieved by roofing over the central courtyard to create an extra room. The alteration of the courtyard into an internal space (room 110) seems to have affected the circulation around the building. The insertion of doors and the conversion of windows into doors in the surrounding ranges allowed a more open-plan layout with all parts of the ground floor directly accessible from room 110. The first-floor windows looking onto the courtyard were presumably blocked at this time, although why this should have been necessary remains unclear. Additional space was also taken from the adjoining building. Doors were knocked through from room 210 and 211 on the first floor of the Atlas Works to rooms 200 and 201 in the Cleveland Works, allowing the use of the entire first floor of building A.

6.1.10 Evidence for pottery manufacture within the building was concentrated in the ground-floor rooms in which the production flow seems to have followed a roughly clockwise progression. Barrels containing glaze were present in room 105 and the former courtyard room (110) contained a mangle dryer which could have been used in drying either moulds or ware. Firing was carried out in the large kiln located within room 111. An intermittent kiln was probably chosen for this area because although less efficient, it would have been easier to install and would take up less space in the room (Rado 1969, 109). It is unknown whether it was used for biscuit or glost. Rooms 103 and 109 seemed to have been used for storage and packing, the former containing pallets of finished ware and the latter stacks of cardboard boxes. The use to which the first-floor rooms were put was harder to determine. The larger rooms in the north and south ranges (200, 201, 210 and 211) and also that taken from the Cleveland Works (A200) were probably used as workshops but little furniture or fittings remained to indicate their precise use. The smaller rooms in the eastern range comprised a mix of offices (202, 203, 208) and changing areas/rest rooms (205-207 and 209). The location of clay preparation and the manufacture of ware within the Atlas Works could not be identified. The lack of evidence pertaining to either process may be due to the removal of diagnostic equipment or, alternatively, because, during ownership by Just Mugs Ltd. at least, different stages of manufacture may well have taken place within each one of their two works on College Road.

6.2 The Cleveland Works (Figs. 16 & 17)

6.2.1 ***Phase 1 (1880 - 1900)*** The Cleveland Works was built in 1880 by William Bennet as a pottery factory. The original layout of the works is shown for the first time on the 1900 OS map (Fig. 3). It comprised four ranges, of which buildings A, B and D formed the northern, eastern and western ranges respectively. A large central block, housing four kilns on the 1950 OS map (Fig. 6), extended out from the western range (building D) into the area between the four ranges. Although not shown until 1950 it is probable that the kilns were, nonetheless, present within the central block. During excavation of the central area and the demolition of the southern range in July 2009, three kiln bases were identified which related to the row of three kilns shown on the 1950 OS map. The central kiln of the three was constructed on a cork containing fragments of ointment pot which could be dated from 1881 to 1909 (Boothroyd 2009, pers. comm), corresponding well with the 1880 construction date for the rest of the factory. Further information relating to the three kilns has been deposited with the site archive (see **4.1**)

6.2.2 Unfortunately it is harder to ascertain how the surveyed buildings were used when the site functioned as a pottery factory as the internal layout had been much altered and few fixtures and fittings remained. As far as could be determined, all the original ranges (buildings A, B and D) had originally contained one large room on each floor. Smaller rooms were originally located in the north-eastern corner of the works on either side of the carriage porch. On the ground floor, rooms B114 – B116 on the north side of the carriage porch had retained the original layout. To the south side of the carriage porch rooms B112 and B113 were divided from the rest of the ground-floor rooms with an original brick wall suggesting that they had formed a second smaller room. The first floor had followed a similar layout with rooms B210 and B212 forming one space over B114 – B116. The stub of wall in corridor B203, opposite rooms B206 and B207 and coinciding with the change in floor level, would also suggest a room to the south of the stair located over rooms B112 and B113.

6.2.3 The larger rooms were probably used as workshops although no evidence as to their precise use remained. Pottery works, however, were often arranged so that production began at the rear and finished at the front of the factory, ensuring that the dirtiest stages of the process, such as clay preparation and saggar making, took place away from the

main public side of the works (Baker 1991, 49). Making shops and decorating shops were generally in the rear ranges of the works, and easily accessible from the kilns, allowing for the cross-movement of the ware made necessary by the different, sometimes overlapping, stages and treatments of production (Baker 1991, 50). The front range was usually occupied by packing and warehousing, offices for administration, and by designers, modellers, engravers and gilders (Baker 1991, 49-50).

6.2.4 The smaller rooms identified in the north-eastern corner of the works were probably used as offices. Rooms B116 and B210/B211 each had their own fireplace, and had a higher quality finish such as plastered walls and moulded architraves surrounding doors and windows. Their location by the main entrance suggests that, as in the Atlas Works, they were placed to overlook those leaving and entering the factory. The oriel window on the first floor in this area was also well placed to oversee activities within the central area. The use of external stairs to access the first floor of building A may also have been designed to ensure that movement around the factory could be overlooked. External stairs to each workshop were also used to help segregate the workforce. By restricting communication between workshops, attempts were made to protect trade secrets and to prevent the perceived moral corruption that might spread in having either men and women or large groups working together (Baker 1991, 51). This preference for external stairs may also explain the apparent lack of original stairs seen within buildings D and in the main part of building B.

6.2.5 ***Phase 2 (1900 – 1924)*** Two small structures linking the central block with the northern and western ranges are evident on the 1924 OS map (Fig. 4). Traces of the link between the western range and the central block were evident on the eastern elevation of building D (**see 5.4.15**).

6.2.6 ***Phase 3 (1937 – 1950)*** Further development took place at the Cleveland Works between 1937 and 1950. The 1950 OS map (Fig. 6) depicts an extension to the northern range in the north-eastern corner of the site and four kilns are indicated within the central block for the first time. No evidence indicative of these alterations was, however, found within the buildings.

6.2.7 ***Phase 4 (1950 – 1970)*** The Cleveland Works was substantially altered during this phase. By the time it appears on the 1970 OS map (Fig. 7) the entire central block housing the kilns and the section connecting it to the western range have been demolished. This significant change to the site layout was no doubt carried out when the site ceased operation as a pottery factory and was used as an upholsterers. The buildings most obviously associated with pottery production were removed and the more easily adaptable ranges (buildings A, B and D), which had housed workshops and offices, retained. The 1970 OS map also shows the addition of the toilet block on the western side of building B, presumably part of the upgrading of facilities on site.

6.2.8 ***Phase 5 (1970 – present)*** The building as surveyed owed much to its latest incarnation as the Cleveland Trading Estate. The front range was subdivided into modern office accommodation and the ground floor of building D was fitted out as a gym, including toilet and shower facilities. The rooms within building A were maintained as workshops although subdivided into four smaller rooms on the ground floor. Further workshop space was also provided with the construction of building C.

6.3 The Washington Pottery (Figs. 18 - 20)

6.3.1 ***Phase 1 (1880 – 1900)*** The Washington Pottery was constructed between 1880 and 1900 as a courtyard pottery factory. First shown on the 1900 OS map (Fig. 3), the buildings included a large range at the rear of the site which probably housed the kilns (three kilns are shown on the 1950 OS map, see Fig. 6). The exterior walls of the original east, north and south ranges could best be traced within areas W303, W306 to W314 and areas W316 to W318 of the building, but were also evident in the equivalent areas on the ground and first floors. As in the Cleveland Works these ranges probably housed the making and decorating shops, packing and administration.

6.3.2 ***Phase 2 (1900 -1924)*** The OS map of 1924 (Fig. 4) shows that a small building sited in the middle of the courtyard has been demolished, but no structural evidence of this change was identified at the time of survey.

6.3.3 ***Phase 3 (1937-1950)*** By 1950 the factory had been slightly extended (Fig. 6). The projecting section at the southern end of the site had been enlarged and an extension to the northern range had been inserted into the courtyard. The extension to the north range

corresponds well with area W304 (and the equivalent areas on the floors below), distinguished as a separate building by its distinct roof structure.

6.3.4 ***Phase 4 (1950-1970)*** The factory had changed almost beyond recognition by the time it appears on the 1970 OS map (Fig. 7), having achieved the layout seen during the recent survey. The two large modern blocks were constructed by 1965 when the corner block in particular was praised as 'perhaps the most attractive of the new factories' (Smith 1965, 90). The original eastern, northern and southern ranges remained, although the latter two were much truncated, and were opened out into the modern additions. Various smaller blocks were added to the courtyard, leaving little more than a light well. This vast modernisation to the factory can be associated with the general move away from bottle kilns and towards the use of electric kilns, prompted by the Clean Air Acts of 1960. The new electric kilns required larger open rooms in the body of the premises (Baker 1991, 112), resulting in the large open-plan blocks seen at the Washington Pottery.

6.3.5 The rebuilding work at the Washington Pottery seems to have been a staged development. The western block, best represented by areas W300 & W301 on the second floor (W104 and W105 on the ground floor and W200 – W202 on the first floor), seems to have replaced the range containing the bottle kilns, both functionally and physically. It is notable that this block formed a u-shape around the area occupied by the northernmost two kilns as shown on the 1950 OS map (Fig. 6). It is tempting then to suggest that the western block was first built around the standing kilns, which were then subsequently replaced by the block represented by area W302 on the second floor and the areas directly below it. Certainly such a phased re-building would allow the factory to continue in operation while the bottle kilns were replaced with modern alternatives. Structurally and stylistically the corner block (W106, W215 and W315) is quite different from the western range indicating that it was built at a different time, possibly when the plot occupied by the terraced houses became available.

6.3.6 In its final form, the order of production in the Washington Pottery probably started with clay preparation in the basement. Following this productions seems to have progressed from the top of the building down to the bottom. Clay slip was prepared and stored in the blungers and tanks located within room W007 in the basement. The slip

was then moved up the building through plastic pipes which terminated in areas W215 on the first floors and area W315 on the second floor, where items would be slip-cast in plaster of Paris moulds. The moulds seem to have been made on the first floor, with plaster bins and workbenches located in area W202. The drying rooms seen in this area were perhaps used for drying off excess water absorbed by the moulds. From here the green items would have been biscuit fired in one of the two kilns, possibly that on the second floor. The choice of intermittent kilns rather than tunnel kilns would have allowed for greater flexibility, both in terms of the use of the surrounding space and in allowing for fluctuations in output. The smaller intermittent kilns would take up less space, could be fired much more quickly and could be more easily turned on and off according to need (Rado 1969, 109). After biscuit firing, the wares would have been decorated and glazed. The glaze charts seen in area W105 suggest this process took place on the ground floor. The decorated and glazed wares were fired in a glost kiln, potentially that on the ground floor given its close proximity to area W105.

7.0 Conclusions

7.1 The Atlas Works, Cleveland Works and Washington Pottery were all designed with the main façade of each building fronting on to College Road (Fig. 15). The façades of both the Atlas and Cleveland Works were of restrained design with features such as the Georgian/Italianate-style central pedimented bays and arched carriage entrances typical of 19th-century potteries in the area. The use of this style in the iron foundry is not surprising; as the predominant industrial building type in Stoke-on-Trent, the pottery factories and the designs employed in them no doubt had an influence on other industrial structures in the area. The Washington Pottery was built in a far more austere style than the adjoining buildings, with greater weight having been given to functionalism and efficiency than to the appearance of the façade.

7.2 The original design of both the Atlas Works and Washington Pottery is based upon a courtyard plan. Well established in the pottery works from the late 18th century, this layout was favoured for its economy and efficiency. The courtyard plan allowed production, at least in theory, to follow a logical order, progressing around the works with the early, dirty stages of production at the rear of the site and the final stages of decoration and packaging at the front of the premises (Baker 1991, 49). The enclosed plan was also a secure one, allowing all those entering and leaving the works to be

monitored (Baker 1991, 49). Although not a courtyard plan as such, the arrangement of ranges surrounding a central kiln block seen in the Cleveland Works, would have functioned in a similar manner, allowing an enclosed site in which production could progress around the buildings logically. The same courtyard plan is also seen in many other industrial premises such as glass factories, clock manufactories and engineering works, 'where precision work by hand was combined with the use of power' (Stratton and Trinder 1997, 44) and no doubt the same sort of considerations seen in the design of the pottery works were as applicable to the ironfoundry.

7.3 There is a certain conservatism seen in the modernisation of the three works. Certainly the Atlas Works retained all the original buildings, although it had been somewhat modified for the needs of a modern pottery factory, requiring larger open-plan spaces. In the Cleveland Works also, the outer ranges largely remained. In both cases those buildings which could be easily adapted were maintained. In the workshop and administrative ranges, small and medium sized machinery could be removed and internal partitions could be rearranged to suit the needs of each new inhabitant. Only the buildings more specific to each industry were demolished, such as the bottle kilns in the Cleveland Works and presumably the furnace in the Atlas Works. Even in the Washington Pottery, which had been substantially re-built in the course of modernisation, there is a surprising retention of the older factory buildings. Rather than demolishing and rebuilding the front range was maintained and incorporated into the new buildings. Presumably this part of the factory, probably containing administration and packaging, did not need to be modernised, but it must have made the construction of the new blocks somewhat awkward to carry out. Whether this approach was taken because of financial constraints or so that the factory could continue to function throughout the various building stages is unclear, but the overall effect is somewhat piecemeal.

7.4 Further comparisons between the Atlas Works, Cleveland Works and Washington Pottery are more challenging. Without *in-situ* fixtures and fittings little can be said about the flow of production and how it changed over time. There is also no clear comparison to be made between the 19th-century and 20th-century layout of the pottery factories in question beyond those made above; the Cleveland Works has been so modified internally as to be just a shell and the layout of the Washington Pottery, while modern in many ways, has also been constrained by the decision to retain some of the 19th-century ranges.

As regards the Atlas Works, little evidence remained from its life as an engineering works and while its workshops were easily adapted for use as a pottery factory, little other than the equipment left within them is particular to that industry.

8.0 Acknowledgements

This report was written by Zoe Sutherland and illustrated by Alison Nicholls for Stoke-on-Trent Archaeology. Fieldwork was carried out by Heather Ann Cope, Richard Cramp, Deborah Forrester, Clare Henshaw, Peter Stuart and Zoe Sutherland. The project was managed by Jonathan Goodwin. Thanks are due to Noel Boothroyd (City Planning Archaeologist) and also to Casey and Co Ltd., CMR Demolitions Ltd., Project Management Training and Simpson & Co.

Ordnance Survey data is reproduced with permission of H.M.S.O. License No.100024286

9.0 References

Primary sources

Barrett 1963. *City of Stoke-on-Trent directory.*. St Annes-on-sea: Barretts Publications Ltd.

Blair 1972. *City of Stoke-on-Trent Directory.* St Annes-on-sea: Blair Publications Ltd.

Pottery Gazette & Glass Trade Review: Reference Book and Directory, 1919/1952. London: Scott Greenwood & Son Ltd.

Staffordshire Sentinel: The Potteries, Newcastle & District Reference Directory, 1907. Hanley: Staffordshire Sentinel Ltd.

Thomson Local Directory, 1987-88 Edgbaston: Thomson Directories Limited

Yellow Pages Classified Directory 1977/ 1982. London: Telecommunications Headquarters.

Secondary Sources

Baker, D. 1991. *Potworks. The Industrial Architecture of the Staffordshire Potteries*. London: Royal Commission on the Historical Monuments of England.

Bartlett, J.A. 1993. 'Wardle & Co. Ltd', in *British Ceramic Art 1870-1940*. Atglen, PA: Schiffer Publishing Ltd., 214-216.

Boothroyd, N. 2007. *Brief for Historic Building Recording: Former Atlas, Cleveland & Washington Works, College Road, Hanley, Stoke-on-Trent*. Stoke-on-Trent City Council.

Bumpus, B. 1999. *Collecting Rhead Pottery*. London: Francis Joseph Publications.

Goodwin, J. 2008. *Written Scheme of Investigation for Archaeological Building Recording at the Atlas Works, Cleveland Works and Washington Pottery, College Road, Hanley, Stoke-on-Trent, Staffordshire*. NGR SJ 8797 4680.

Hampson, R. 1995. 'Potteries Jotteries' in *The Northern Ceramic Society. Newsletter No. 97. March 1995.* The Northern Ceramic Society.

Henrywood, R.K. 2002. *Staffordshire Potters 1781-1900*. Woodbridge: Antique Collectors' Club Ltd.

Jenkins, J.G. 1967 'Ceramic Engineering' in Greenslade, M.W. and Jenkins, J.G. (eds) *The Victoria County History of the County of Stafford, **2***. London: Oxford University Press.

Niblett, K. 1990. *Dynamic Design: The British Pottery Industry 1940-1990*. Stoke-on-Trent City Museum & Art Gallery.

Rado, P. 1969. *An Introduction to the Technology of Potter.* Oxford: Pergamon Press Ltd.

Rogers, C. 2004. *The Illustrated Encyclopedia of British Willow Ware*. Atglen: Schiffer Publishing Ltd.

Smith, D.M. 1965. 'Industrial Architecture in the Potteries', in *North Staffordshire Journal of Field Studies* ***5,*** 81-94.

Stratton, M. and Trinder, B. 1997. *Industrial England*. London: B.T. Batsford/English Heritage.

Internet sources

Gatensbury, M. E. 2008 'Gosling and Gatensbury Ltd' in *thepotteries.org* <http://www.thepotteries.org/photo_wk/042.htm> [date accessed: 19/06/2009]

Just Mugs Limited. 2005.
URL <http://www.justmugs.com> [date accessed: 03/05/09]

Property Register Extract (PRE)
Just Mugs Ltd, College Road. Land Registry Title No. SF345834
URL <http://www.landregisteronline.gov.uk> [date accessed: 05/05/09]

The Sentinel Newspaper Archive
21.03.2009. *Shelton, 1979: Beatlemania Warehouse Blazes*.
URL <http://www.thisisstaffordshire.co.uk/news> [date accessed: 07/04/09]

Ukdata. Company listings – Rockingham Pottery Ltd http://www.ukdata.com/company-credit-reports/ROCKINGHAM-POTTERY-LIMITED.html [date accessed: 10/03/2010]

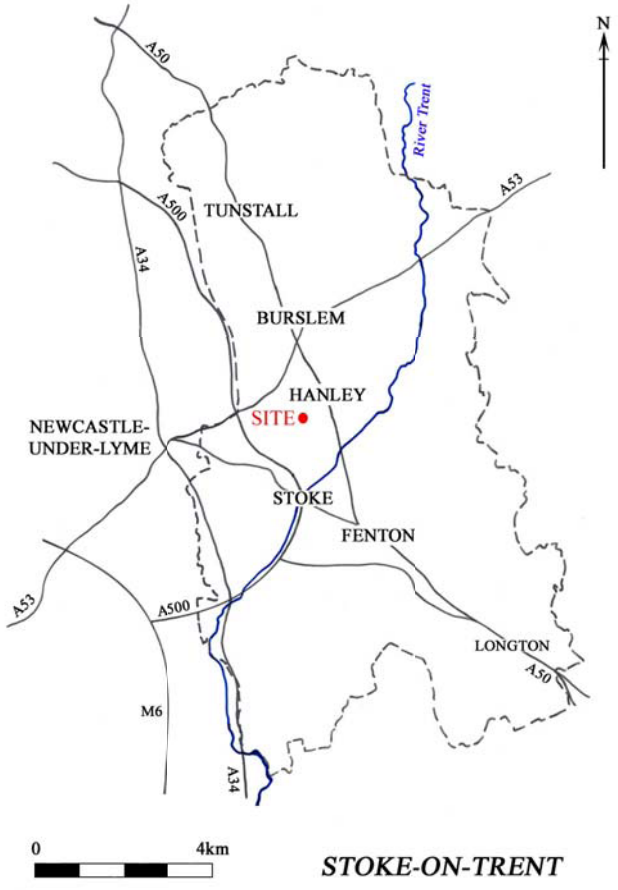
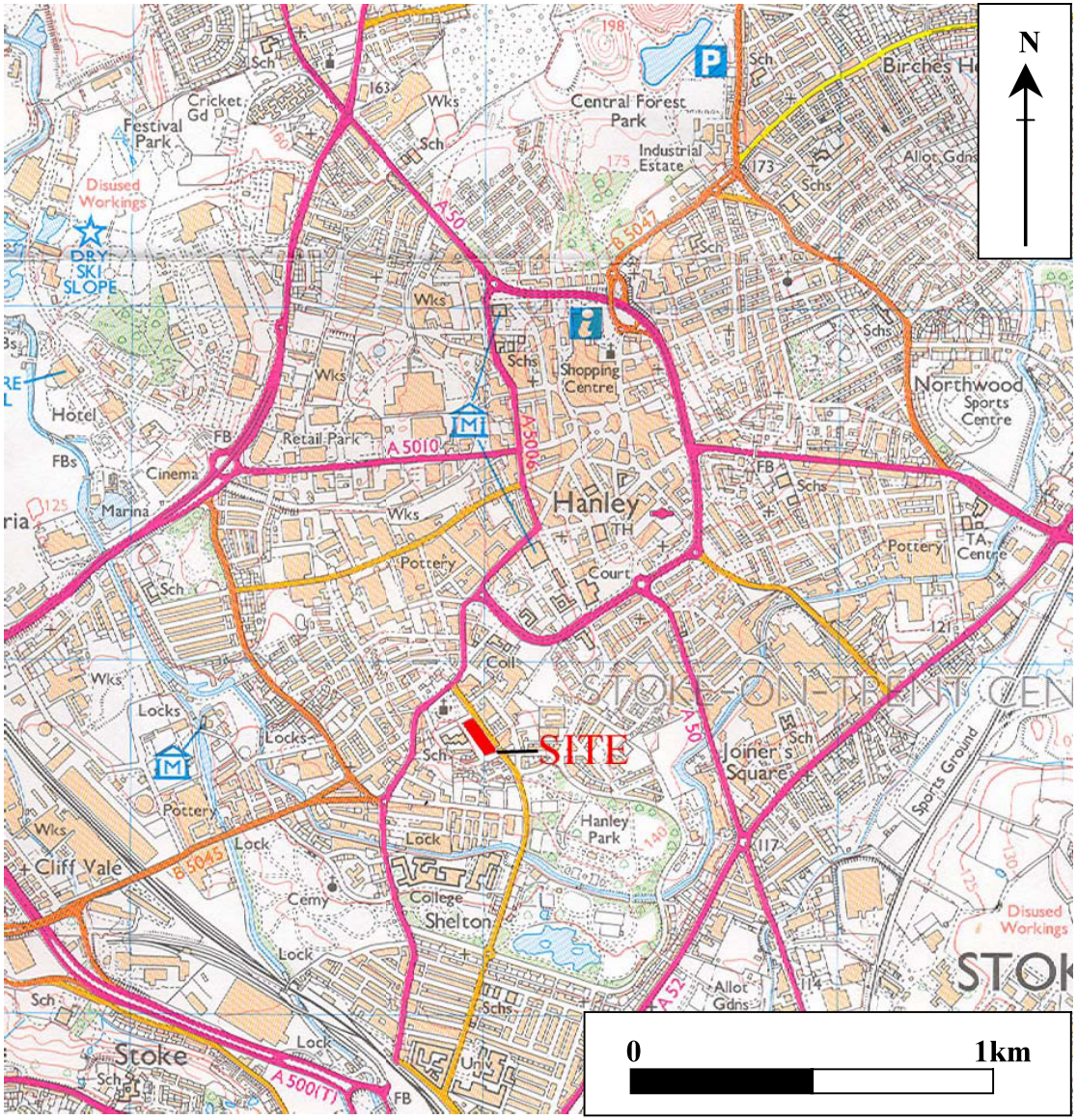


FIG.1

Site location.



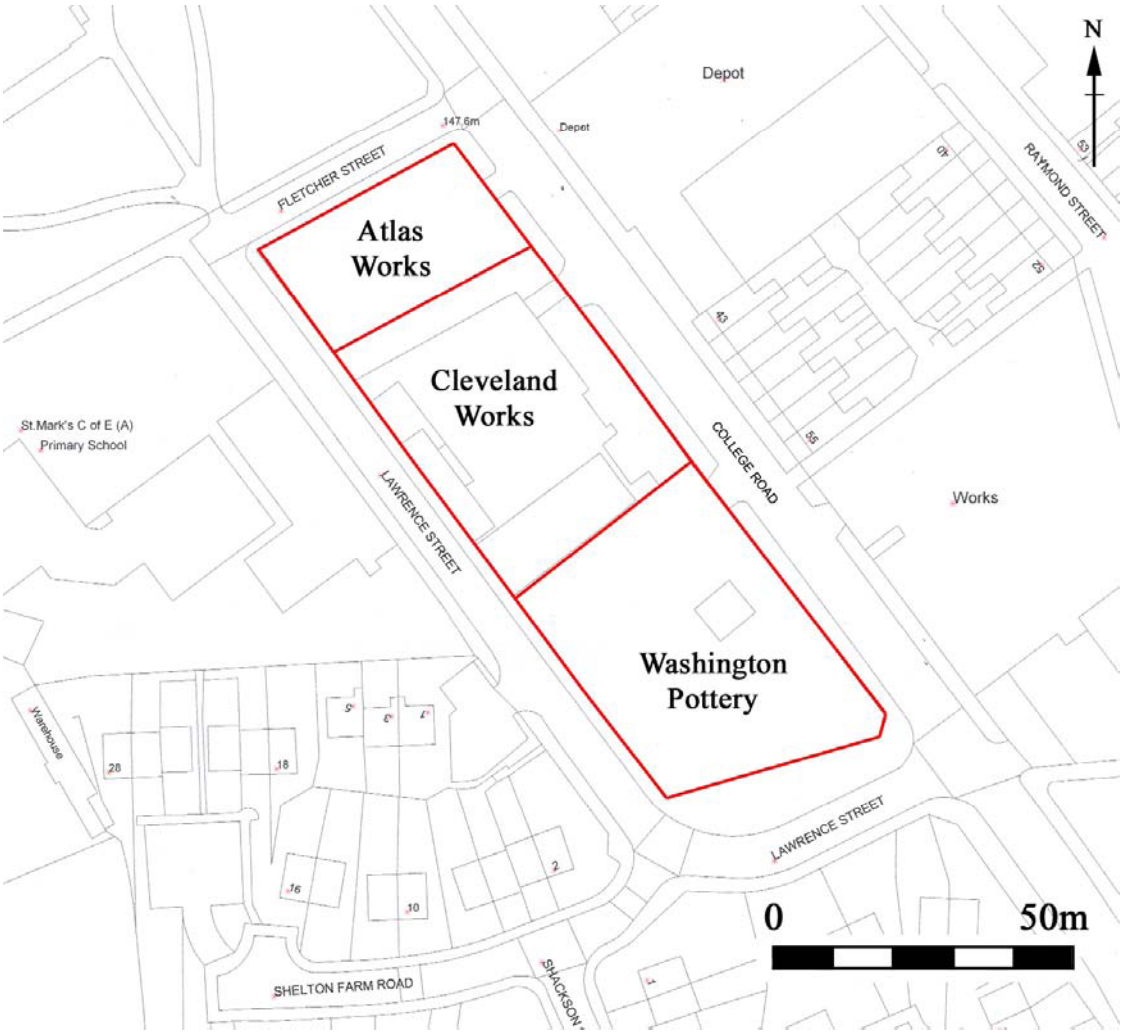


FIG. 2

Site plan showing the Atlas Works, Cleveland Works & Washington Pottery.

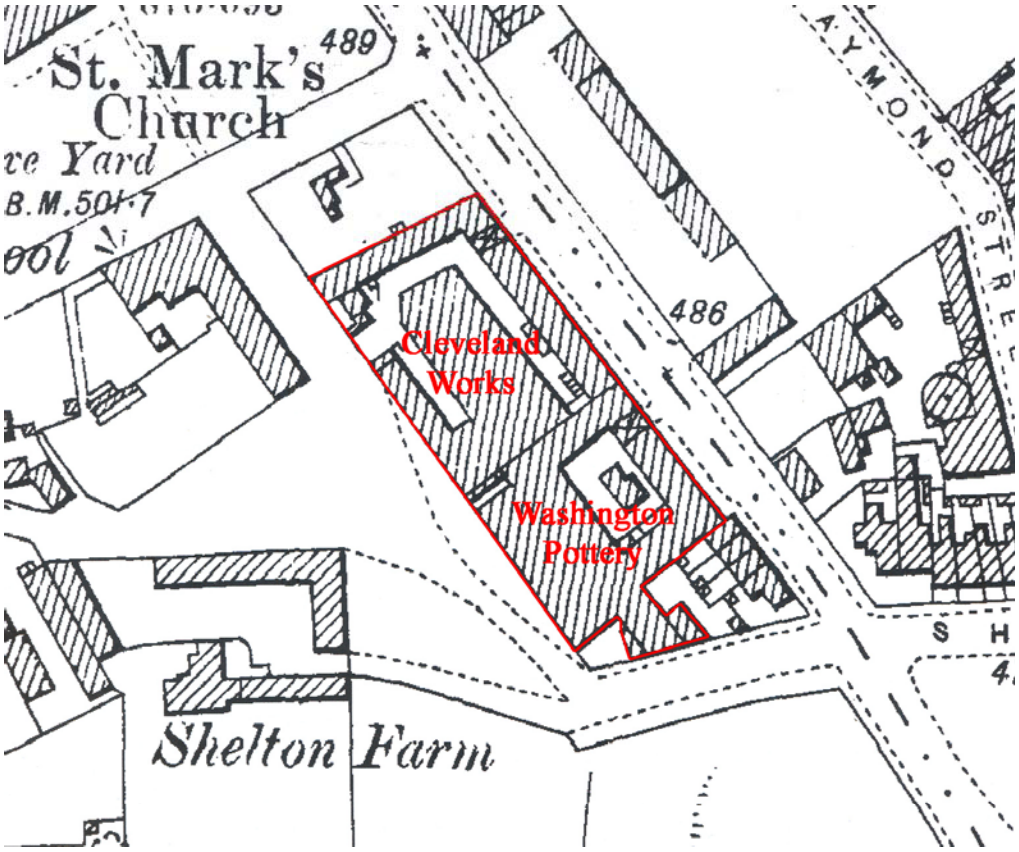


FIG. 3

Extract from the 1900 OS map.

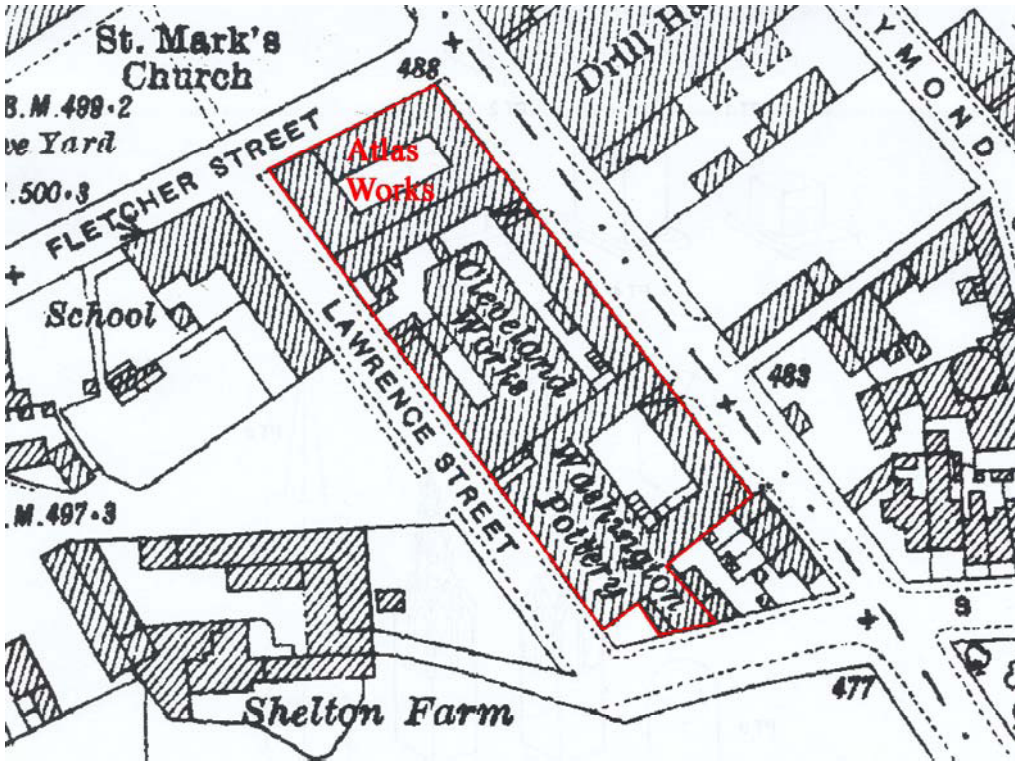


FIG. 4

Extract from the 1924 OS map.

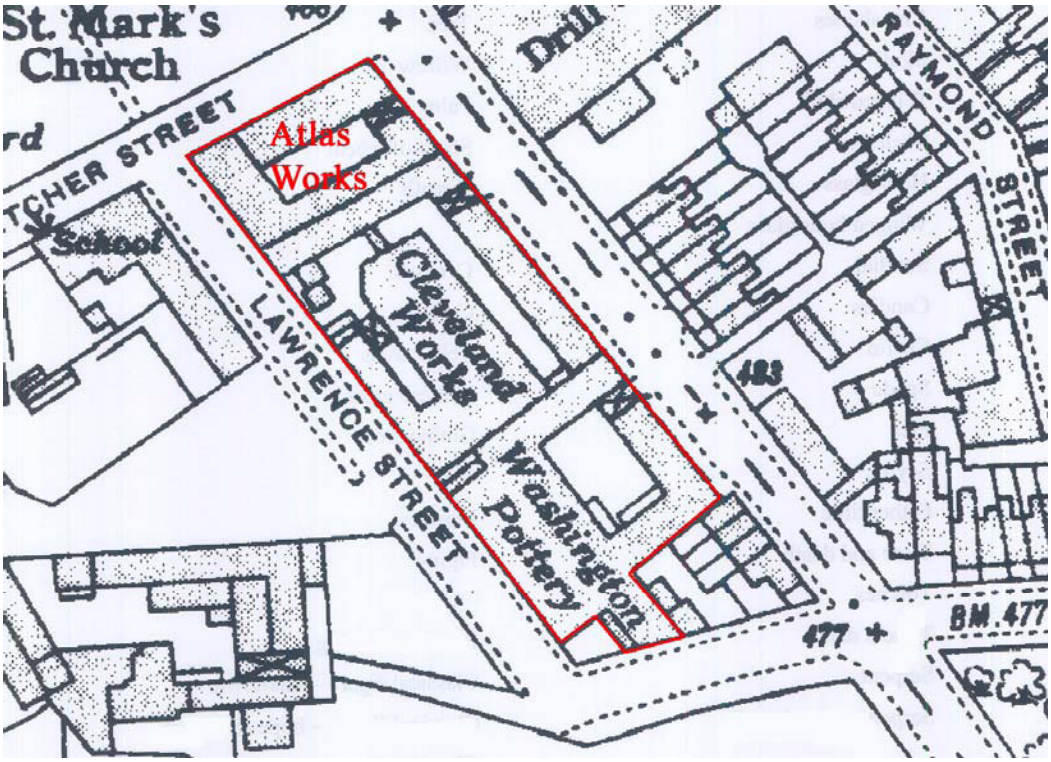


FIG. 5

Extract from the 1937 OS map.

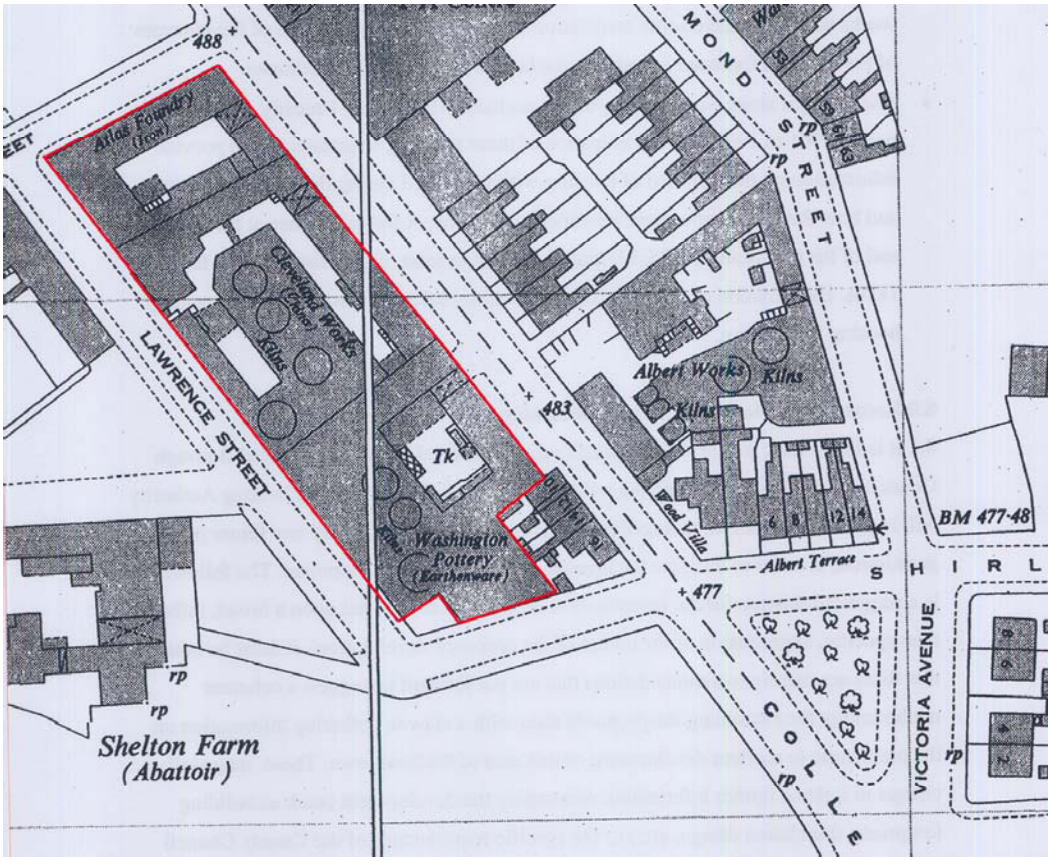


FIG. 6

Extract from the 1950 OS map.

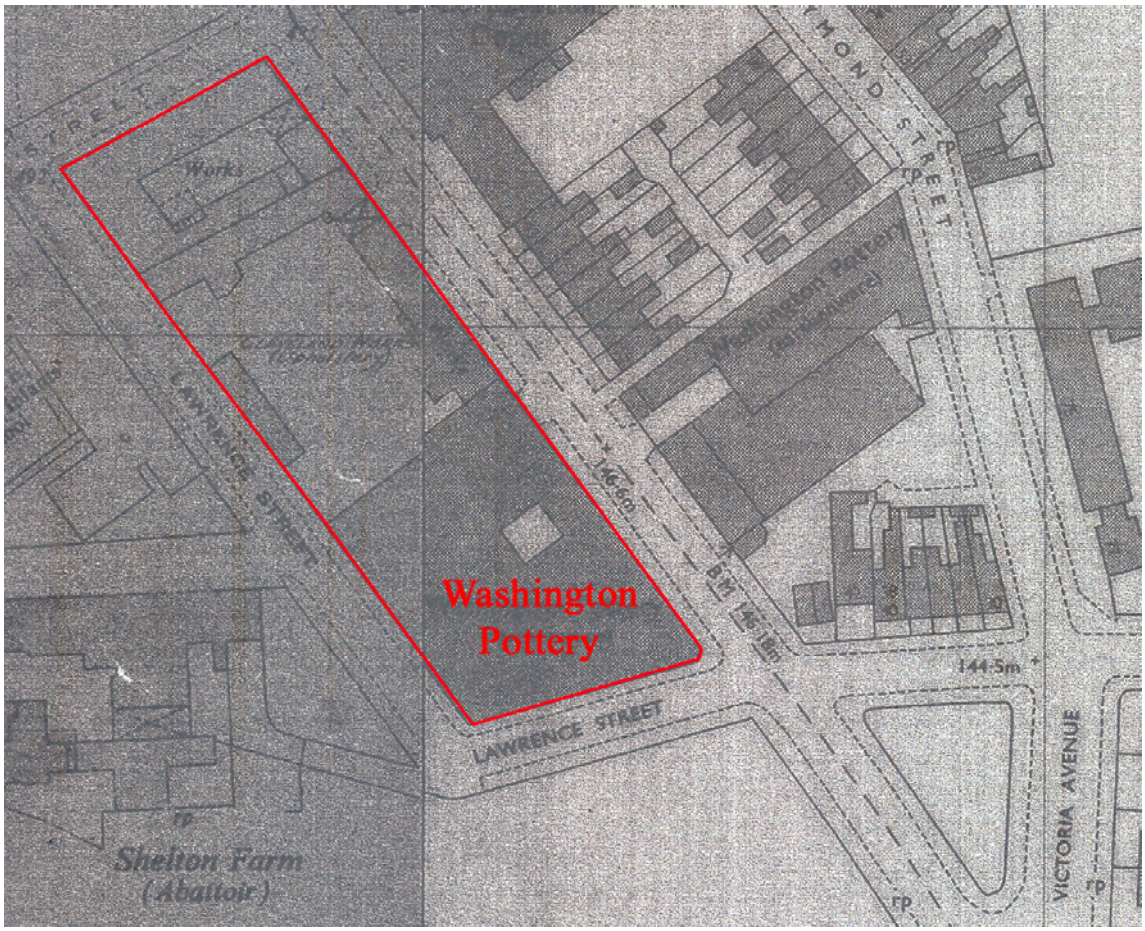


FIG. 7

Extract from the 1970 OS map.

The Washington Pottery

The Cleveland Works

The Atlas Works

FIG. 8

East-facing elevation of the Atlas Works, Cleveland Works and Washington Pottery (adapted from architect's plans supplied by Taylor Young).

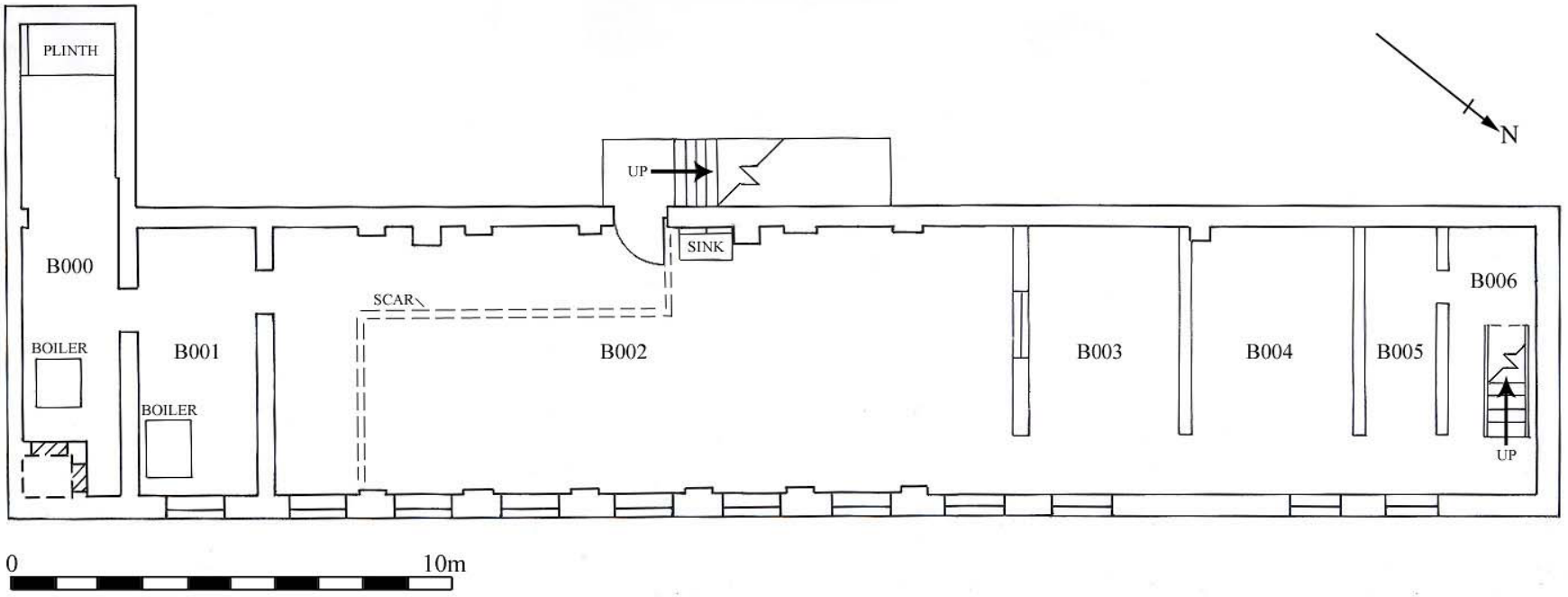


FIG. 9

Basement plan of the Cleveland Works.

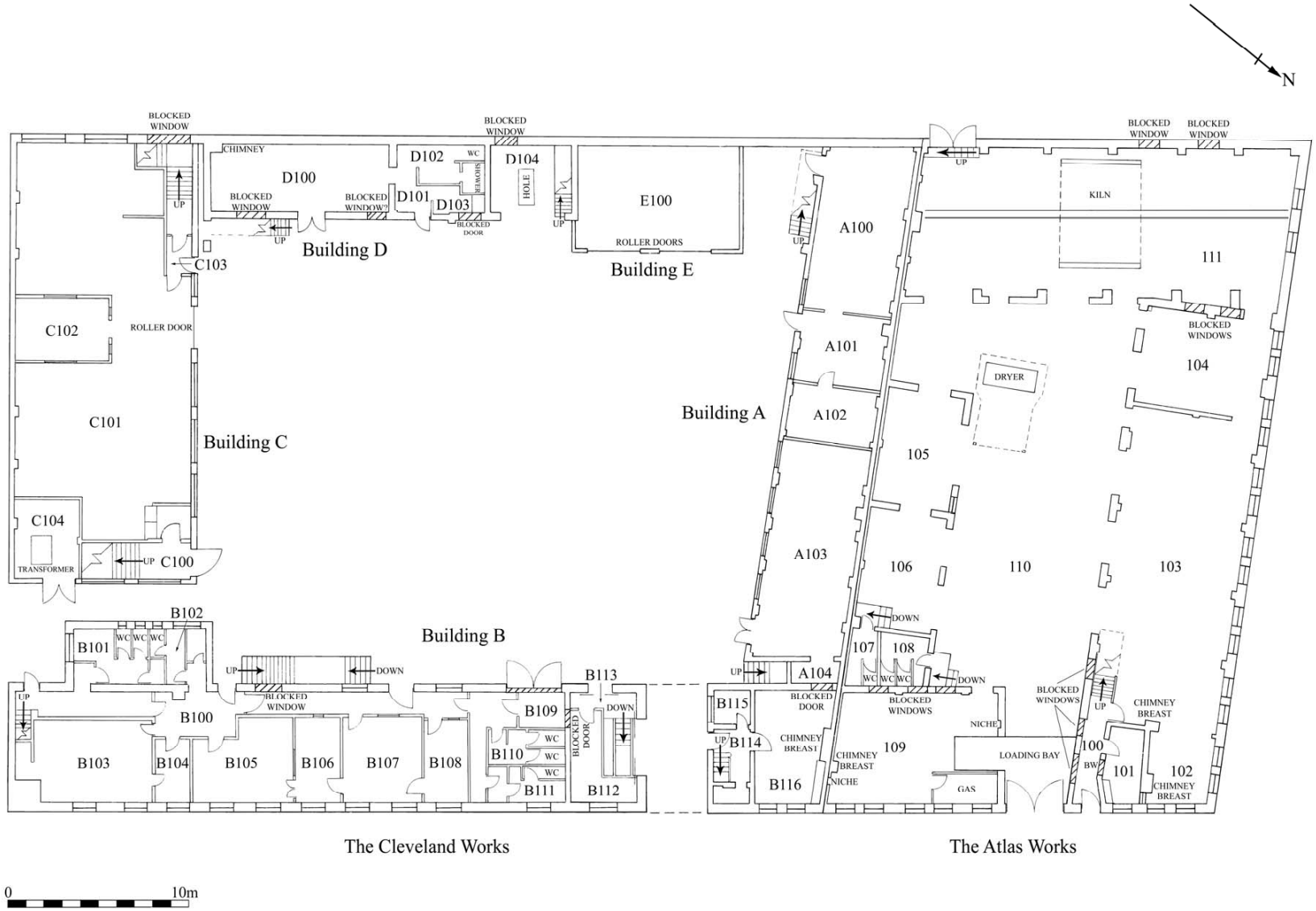


FIG. 10

Ground-floor plan of the Atlas and Cleveland Works.

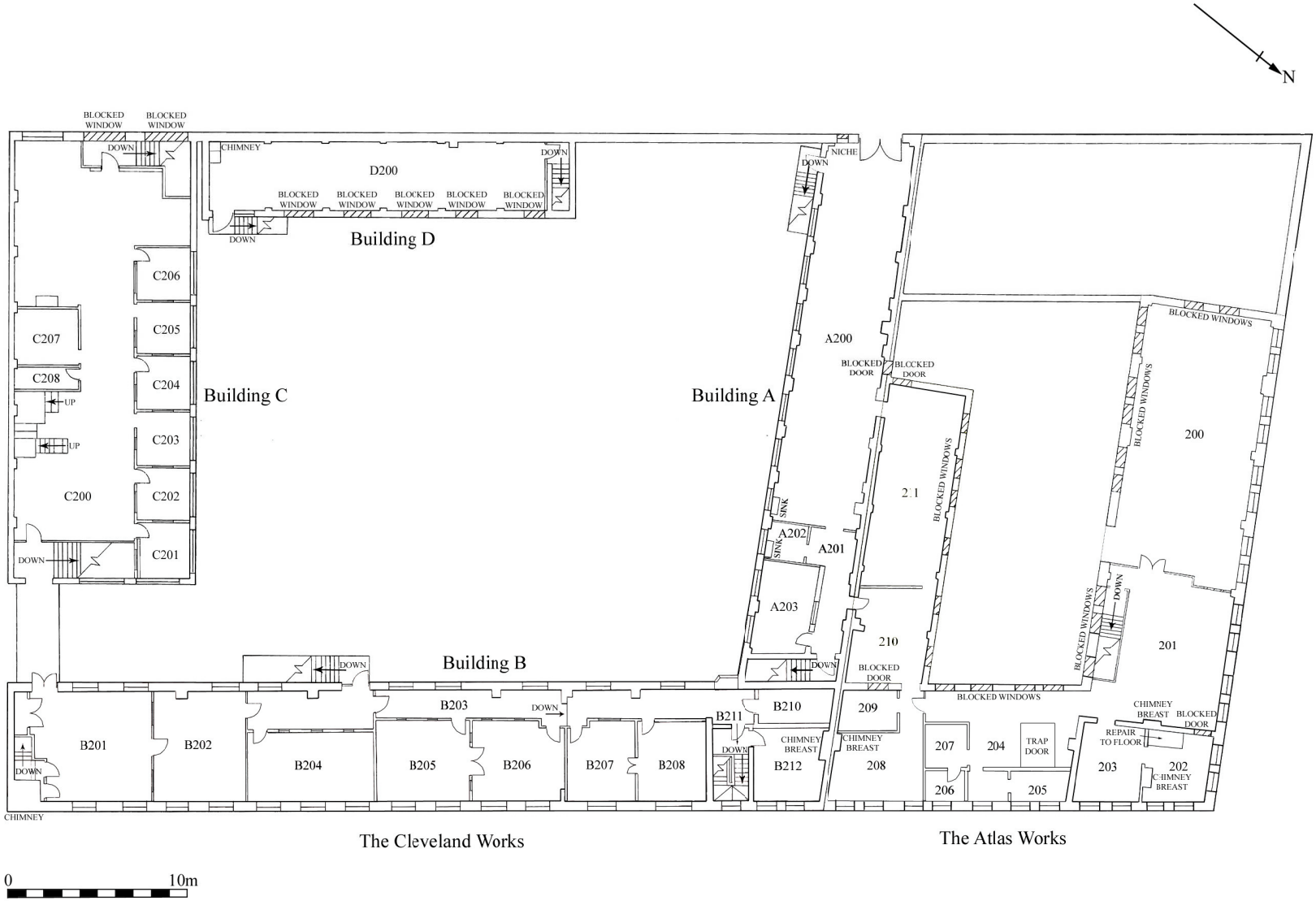


FIG. 11

First-floor plan of the Atlas and Cleveland Works.

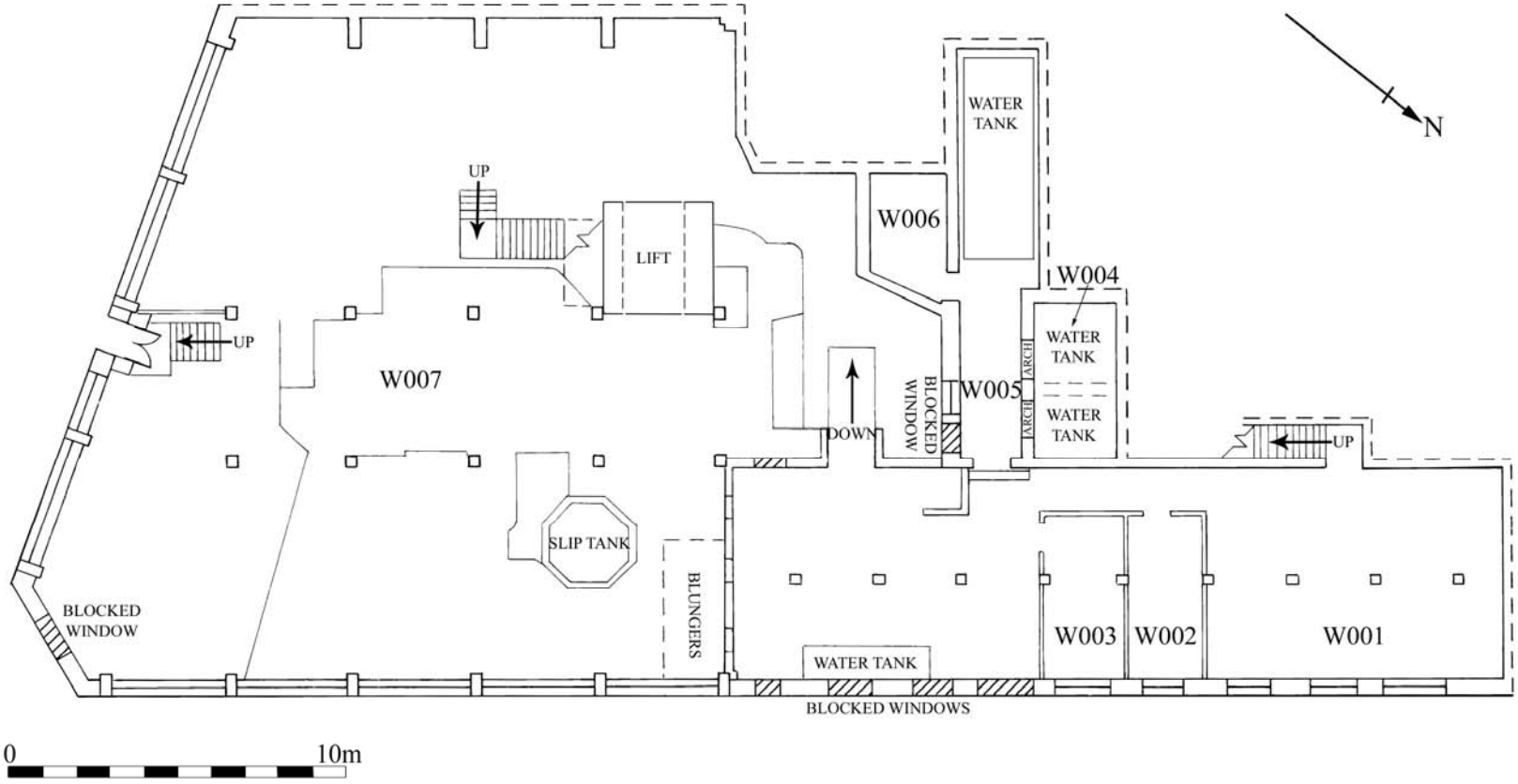


FIG. 12

Basement plan of the Washington Pottery.

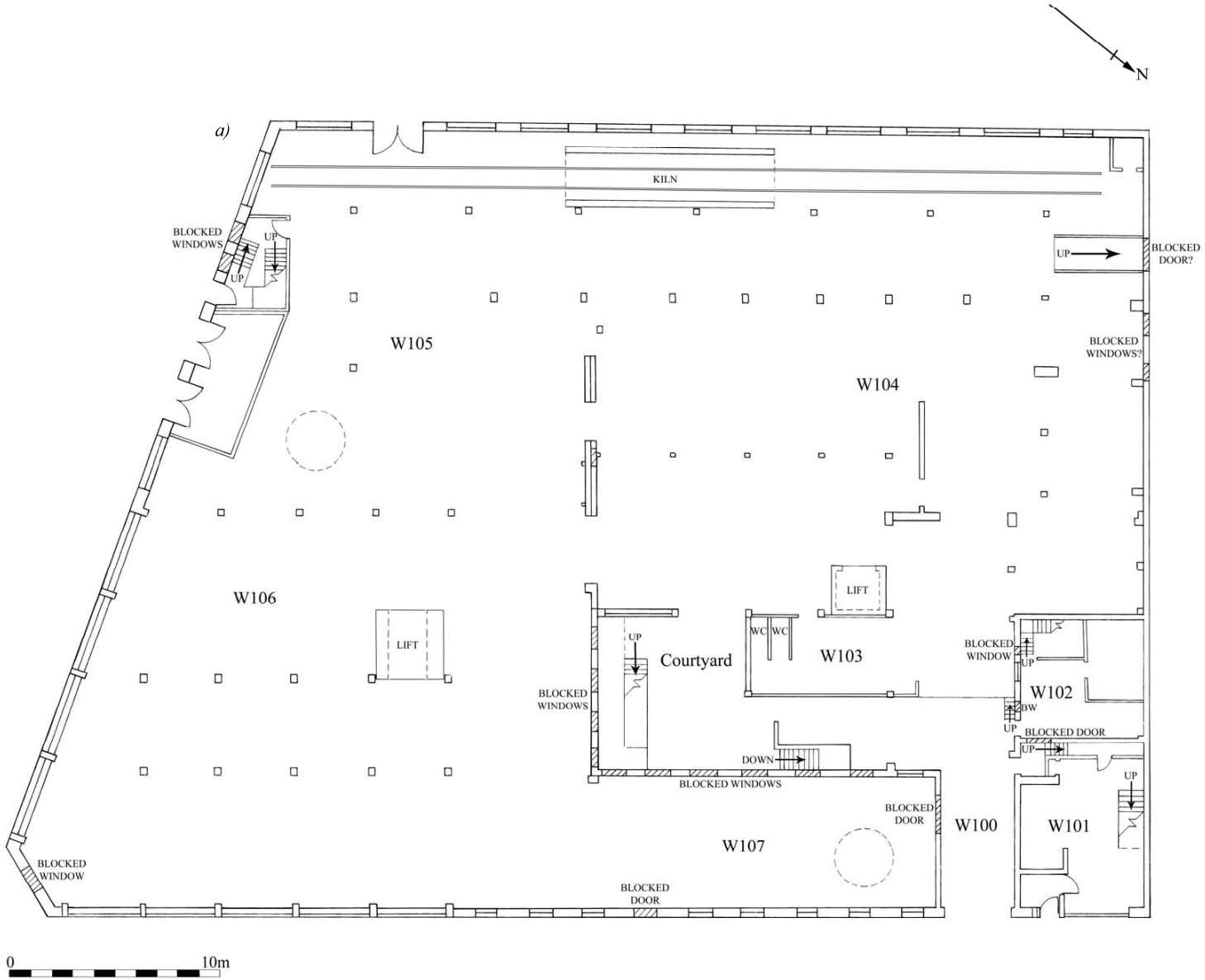


FIG. 13

a) Ground-floor and

b) mezzanine plans of the Washington Pottery.

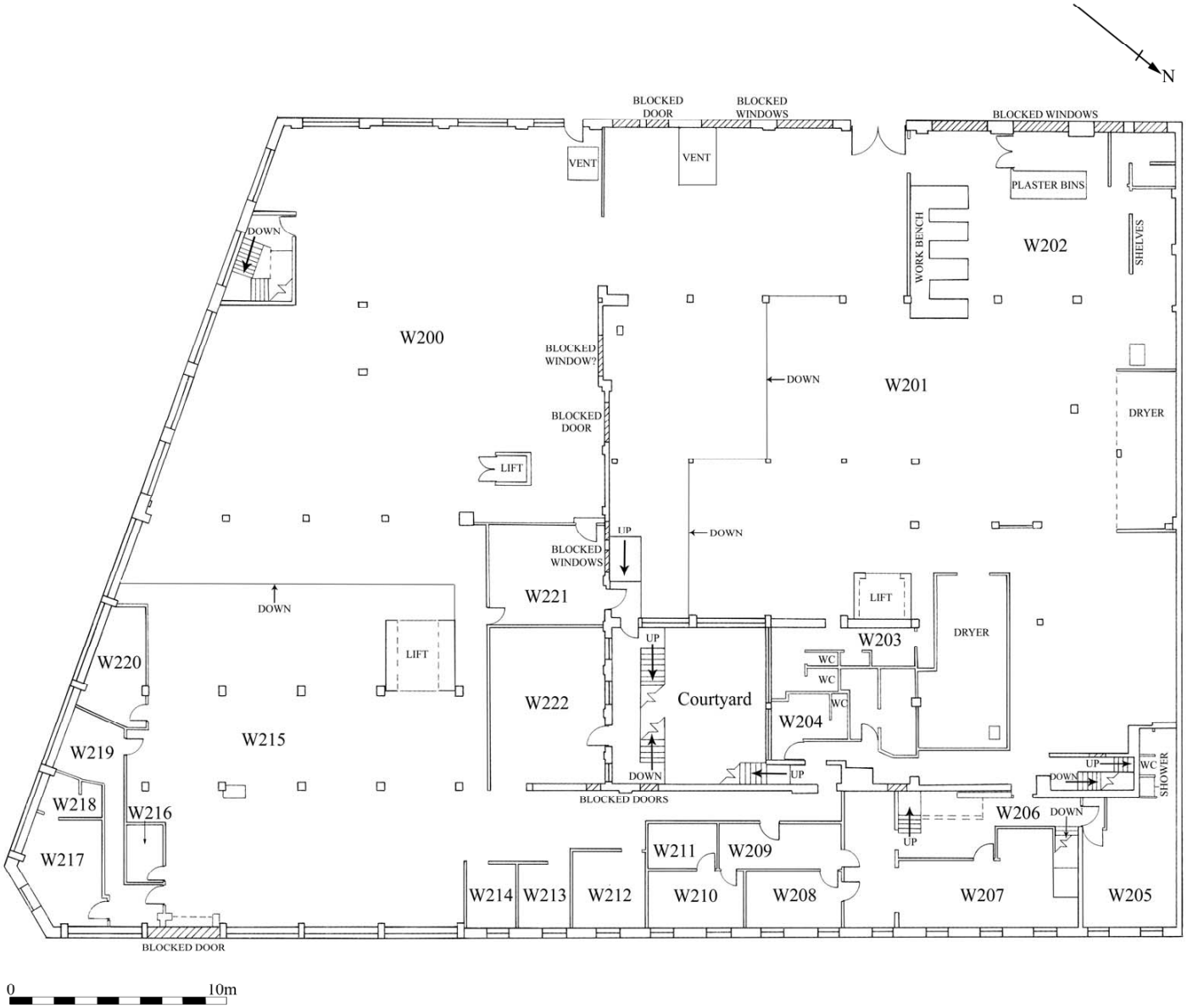


FIG. 14
First-floor plan of the Washington Pottery.

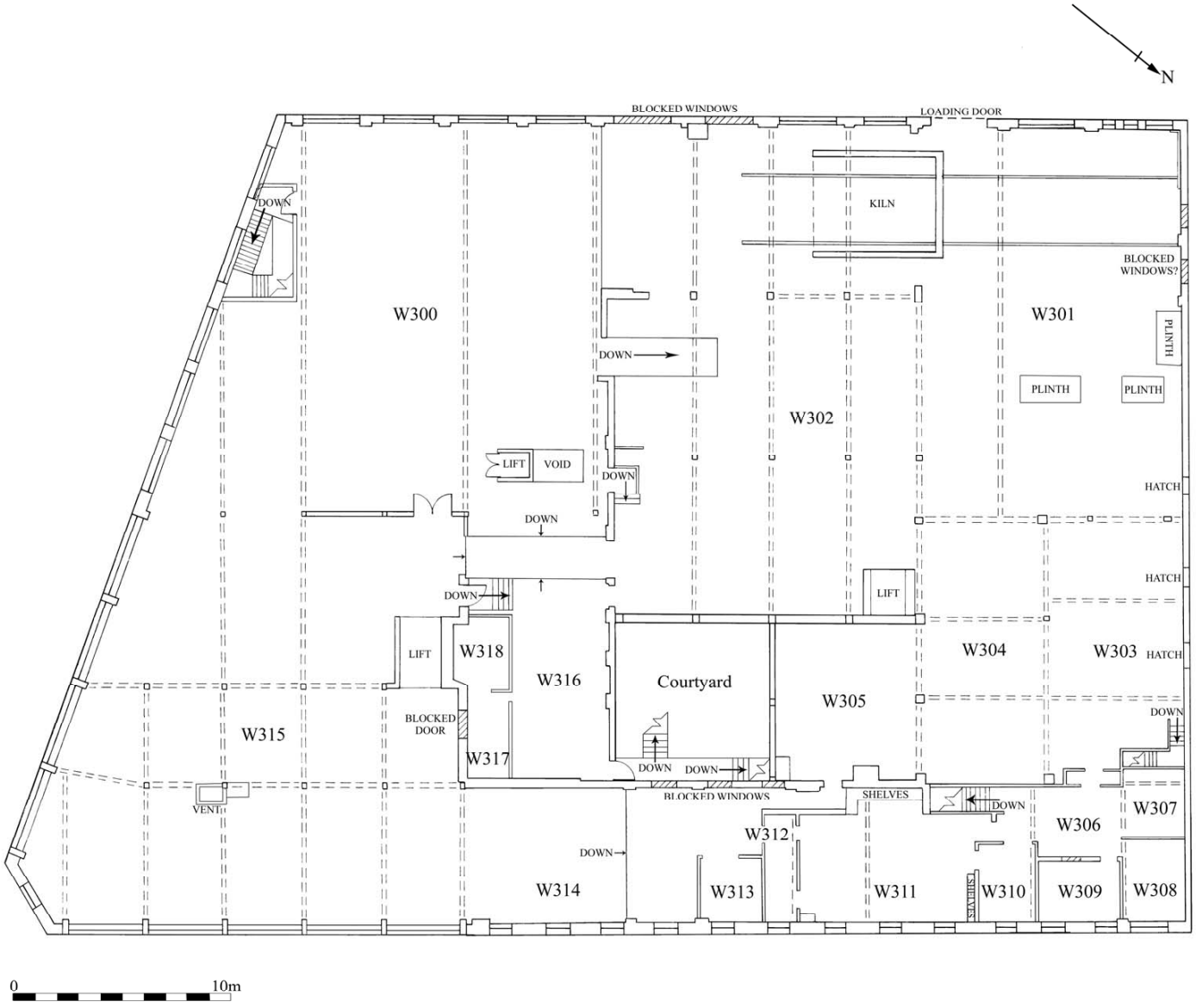


FIG. 15

Second-floor plan of the Washington Pottery.

FIG. 16

Ground-floor phase plan of the Atlas and Cleveland Works.

FIG. 17

First-floor phase plan of the Atlas and Cleveland Works.

FIG. 18
Ground-floor phase plan of the Washington Pottery.

FIG. 19
First-floor phase plan of the Washington Pottery.

FIG. 20

Second-floor phase plan of the Washington Pottery.

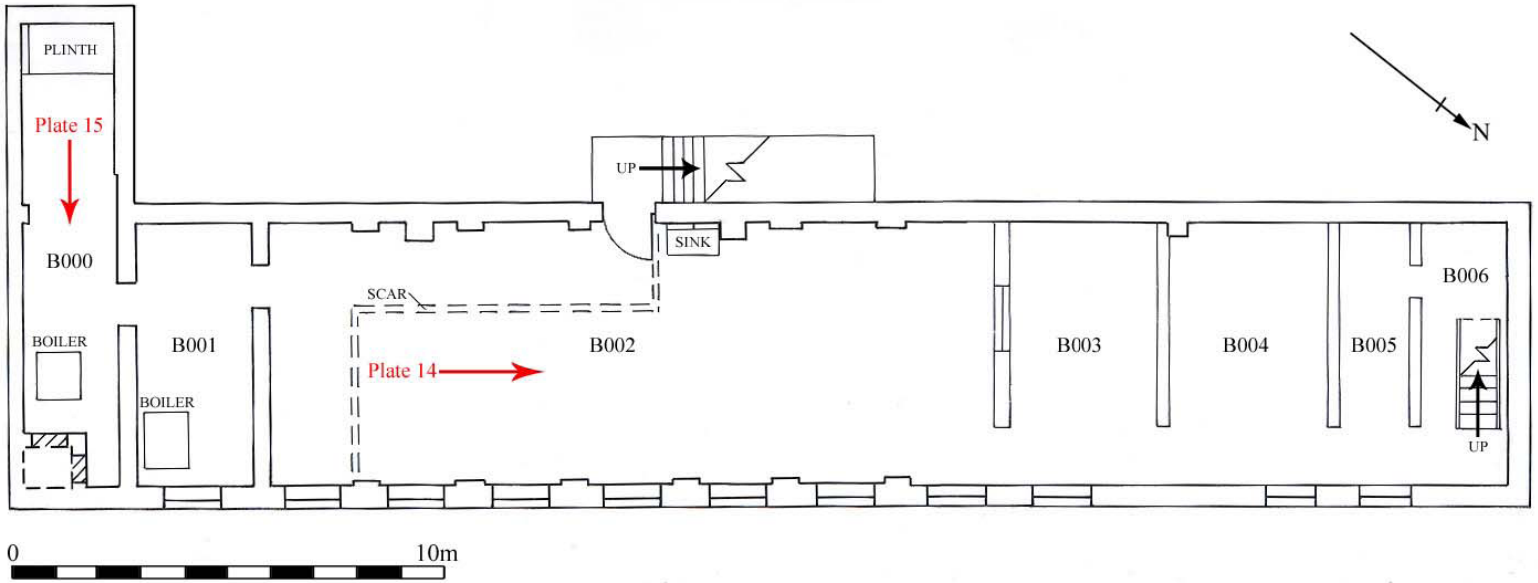
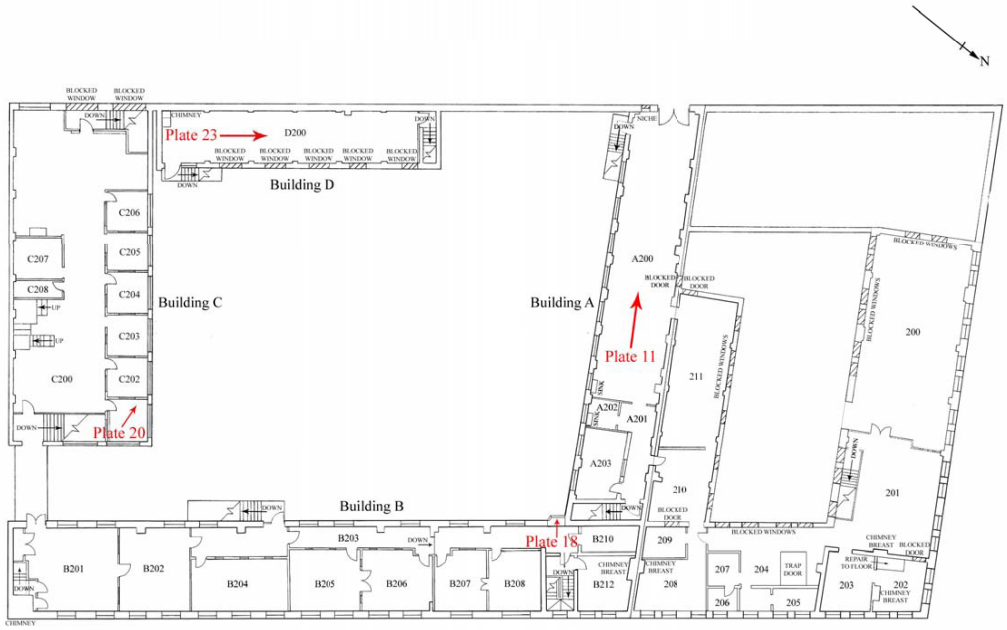


FIG. 21

Plan showing the position from which plate photographs were taken in the basement of the Cleveland Works.

b) First-floor plan



a) Ground-floor plan

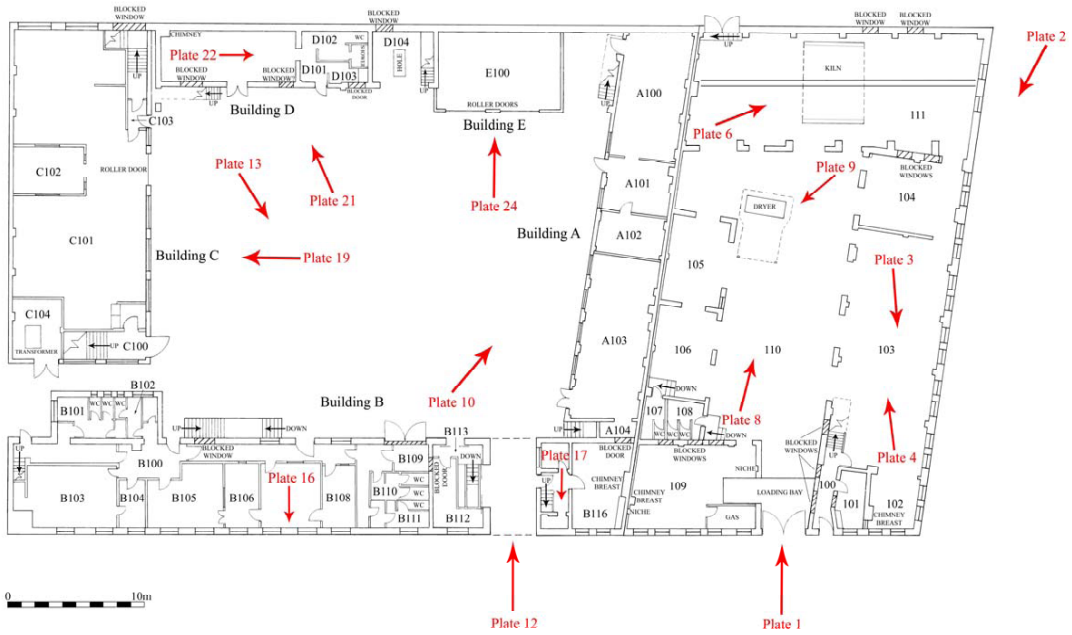


FIG. 22

Plan showing the position from which plate photographs were taken on the a) ground- and b) first-floors of the Atlas and Cleveland Works.

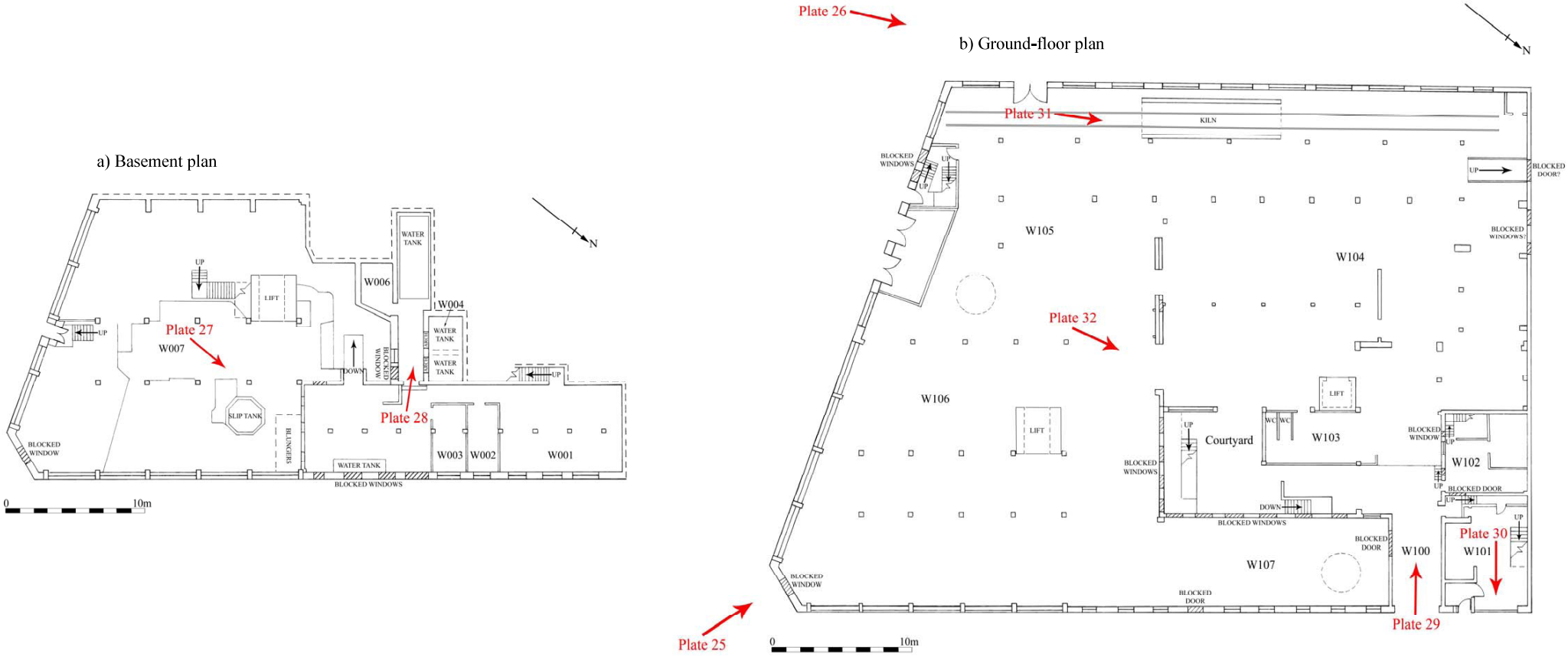
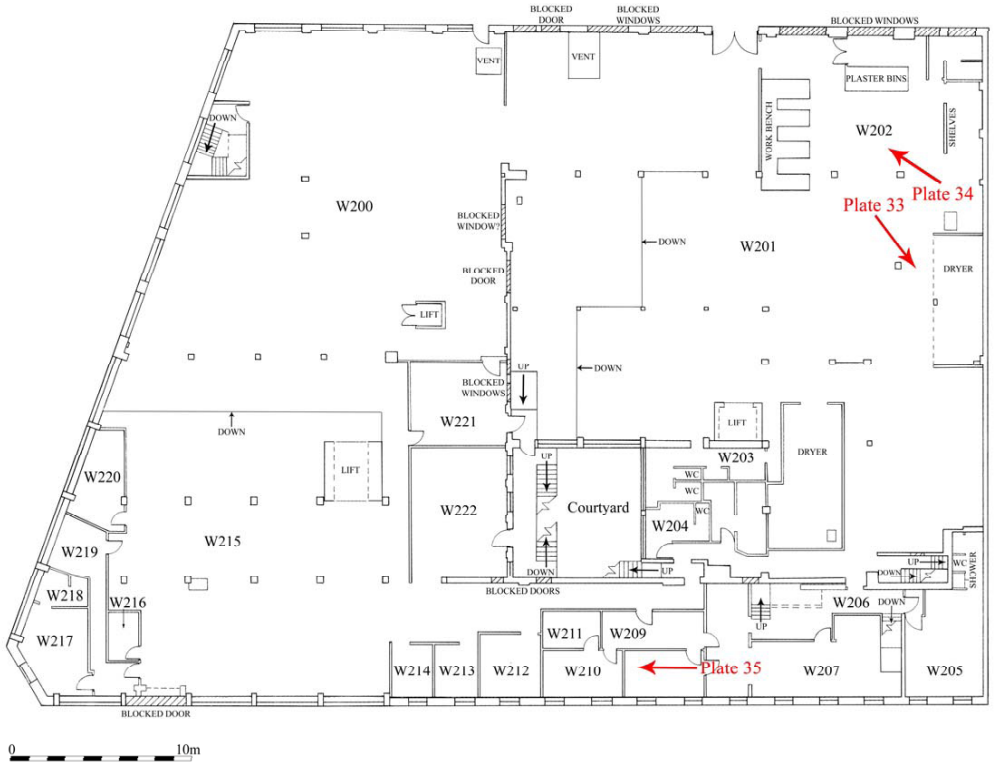


FIG. 23

Plan showing the position from which plate photographs were taken on the a) basement and b) ground-floors of the Washington Pottery.

a) First-floor plan



b) Second-floor plan

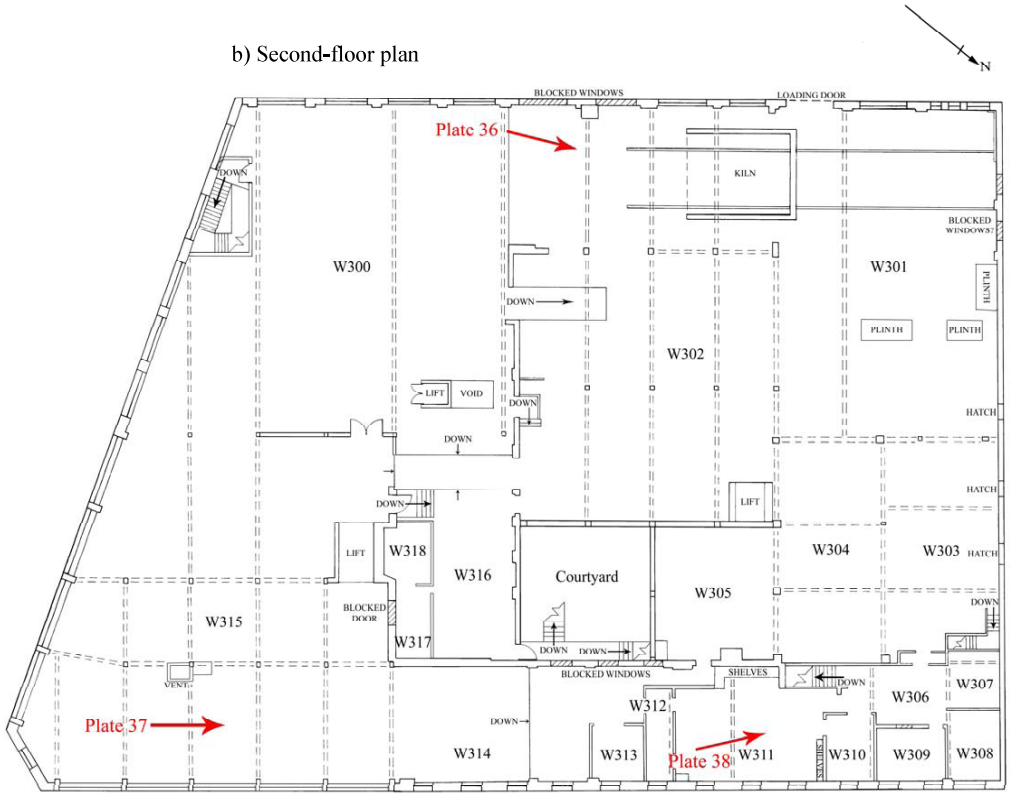


FIG. 24

Plan showing the position from which plate photographs were taken on the a) first- and b) second-floors of the Washington Pottery.

PLATE 1

The carriage entrance to the Atlas Works on College Road.

PLATE 2

North-facing elevation of the Atlas Works.

PLATE 3

Room 102 in the Atlas Works, looking east.

PLATE 4

Room 103 in the Atlas Works, looking west.

PLATE 5

The pulley or lift attached to the beam in room 103.

PLATE 6

The kiln in room 111 of the Atlas Works.

PLATE 7

The overhead crane in room 111.

PLATE 8

The enclosed courtyard (room 110) in the Atlas Works.

PLATE 9

Detail of the mangle-dryer in room 110.

PLATE 10

Building A of the Cleveland Works, south-facing elevation.

PLATE 11

Room A200 in the Cleveland Works, looking west.

PLATE 12

The carriage entrance of the Cleveland Works.

PLATE 13

Building B of the Cleveland Works, west-facing elevation.

PLATE 14

Room B002 in the Cleveland Works, looking north.

PLATE 15

The chimney in the corner of room B000 showing the blocked archway.

PLATE 16

Room B107 in the Cleveland Works.

PLATE 17

The original stairs in B114 of the Cleveland Works.

PLATE 18

The first-floor oriel window in the corner between buildings A and B of the Cleveland Works.

PLATE 19

Building C of the Cleveland Works, north-facing elevation.

PLATE 20

One of the practice painting and decorating rooms on the first floor of building B.

PLATE 21

Building D of the Cleveland Works, east-facing elevation.

PLATE 22

The gym in room D100 of the Cleveland Works.

PLATE 23

Room D200 in the Cleveland Works, looking north.

PLATE 24

Building E of the Cleveland Works, east-facing elevation.

PLATE 25

The Washington Pottery, looking north-west.

PLATE 26

The Washington Pottery, west-facing elevation.

PLATE 27

Room W005 in the Washington Pottery.

PLATE 28

The blungers and slip tank in room W007.

PLATE 29

The loading area W100 in the Washington Pottery.

PLATE 30

The reception area (room W101) in the Washington Pottery.

PLATE 31

The kiln in area W105.

PLATE 32

The 19th-century wall on the north side of area W106.

PLATE 33

The workbenches and adjacent plaster bins in area W201.

PLATE 34

The drying chamber in area W201.

PLATE 35

The office rooms on the first floor of the Washington Pottery.

PLATE 36

The slip pipes in area W315.

PLATE 37

The kiln in area W301 on the second floor of the Washington Pottery.

PLATE 38

The display cabinets in area W 311.