

**Trial Trenching and
Salvage Recording at
Croft Street Industrial
Estate, Willenhall, Walsall**

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**Trial Trenching and Salvage Recording
at Croft Street Industrial Estate,
Willenhall, Walsall**

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1.0 Summary

This report outlines the results of trial trenching and salvage recording on land formerly occupied by the Croft Street Industrial Estate, Willenhall (NGR SO 9628 9861), undertaken on behalf of Stepnell Limited. This work follows a desk-based assessment which highlighted the archaeological potential of the site due to its location near to the medieval settlement of Willenhall, and its situation within one of the lock making centres of the post-medieval industrial period.

The site was found to have been largely disturbed by buildings, demolition, and changes in ground level over the last two centuries. However, significant industrial remains, and the presence of an air raid shelter on the site, reflect that the area had remained an important focus of production for around two hundred years.

2.0 Introduction

This report describes the results of trial trenching and salvage recording at Croft Street Industrial Estate (hereinafter referred to as 'the site'). Birmingham University Field Archaeology Unit (BUFAU) undertook the work reported on here in June 2000, on behalf of Stepnell Limited.

In accordance with the guidelines laid down in Planning Policy Guidance Note 16 (DoE 1990), a recommendation for a programme of archaeological work to accompany a major redevelopment of this land was made by the Black Country Archaeological Officer.

The methodology conforms to an archaeological specification prepared by Birmingham University Field Archaeology Unit (June 2000).

Archaeological work was undertaken ahead of the construction of a new medical centre and associated community facilities.

3.0 The Site and its Setting

The site is centred on NGR SO 9628 9861 at the Croft Industrial Estate on Gomer Street, Willenhall (Figs. 1-2). It is bounded by Croft Street to the north, the rear of housing plots that front onto Stafford Street to the east, Gomer Street to the west and public car parking to the south. The site comprises an area of *c.*0.625 ha. that was formerly an industrial estate which has recently been demolished.

4.0 Aims

The primary aim of the trial trenching was to establish the presence or absence of archaeological deposits. Secondly, should archaeology be present, to determine the

location, extent, date, and character of the deposits and to assess the significance and quality of the remains. The overall aim of the trial trenching was to produce evidence which would provide the basis for possible mitigation strategies within the future development. The purpose of the salvage recording was to provide an appropriate record of the remains uncovered by trial trenching.

5.0 Methodology

A JCB and breaker was used to remove all surviving concrete floors. Topsoil layers and modern overburden was then removed mechanically using a 360° machine under direct archaeological supervision, to expose any undisturbed archaeological deposits or the natural subsoil. The trenches were then recorded and a sample of all archaeological deposits was excavated by hand to characterise and date them. Trenches 4 and 5 were located closest to the Medieval frontage. The site was recorded using *pro-forma* record sheets complemented with scale drawings. A complete photographic record was maintained and finds were kept and processed.

A total of eight trenches was specified for the programme of trial trenching (Fig. 2). Due to the lack of archaeological deposits in some of the trenches not all sections and plans are reproduced in this report, although they are held in the archive.

Following completion of the trial trenching a decision was made, after consultation with the Black Country Archaeologist, to target areas, around Trenches 4, 5 and 7 for salvage recording (Fig. 2). The results of the trial trenching and salvage recording have been conflated and are described below. The salvage recording involved hand-cleaning and selective hand-excavation following contractors' groundworks.

6.0 The Archaeological Results

Trench 1

Trench 1 was orientated north-south. The natural subsoil (1007) was overlain at the southern end of the trench by a series of levelling layers; firstly *c.* 0.2m of light brown, charcoal flecked, sandy clay (1006). This was overlain by *c.* 0.2m of medium brown sandy-silty-clay (1005) containing flecks of charcoal and small stones. Overlying layer 1005 was a possible buried soil (1004) *c.* 0.3m thick layer of dark grey-brown, gritty, sandy-silty-clay, heavily charcoal flecked. This layer contained pottery dating to the 17th and 18th centuries, and a single sherd of 19th-century date which was probably intrusive. Other finds from this layer include fragments of roof tile, animal bone, and the base of an early-mid 18th-century globular bottle.

The butt-end of a brick wall (F100) was visible overlying this deposit at the southern end of the trench, and a large steep sided ?pit (F101) cut the northern section. The pit was backfilled with a very loose deposit (1003) containing 19th-century pottery, quantities of brick, fragments of quarry and roofing tile, modern glass including a wine bottle, and other demolition material. These deposits were not fully excavated due to the water table and contamination, which meant that the trench was not opened to its full length. Overlying all these deposits was a modern levelling layer (1001) and a concrete floor (1000).

Trench 2

Trench 2 was orientated northeast-southwest. The natural subsoil (2001) was overlain by a mixed light orange brown compact sandy silt (2002) containing charcoal flecks and gravel, 0.3-0.6m in depth. This had been scarped down to the southwest and was overlain by demolition material (2003) that included pottery dating to the early 19th century, fragments of clamp-made bricks, pockets of pink clay and mortar, and fragments of roof tile, clay pipe, and glass slag. Both deposits were overlain by a layer of loose black silt containing coal and charcoal, and fragments of brick. The trench did not contain any archaeological features.

Trench 3

Trench 3 was orientated north-south. The natural subsoil (3003) sloped north to south. Some seepage occurred at the base of the trench, and the natural had patches of gleying and manganese streaks suggestive of seasonal waterlogging. Overlying the natural was a mixed deposit of sand and clay (3002) c. 0.3m deep, probably representing an interface between the natural sand and the above levelling layers. This layer was sealed by deposits of ash, clinker and soot (3001), maximum 0.7m deep, which may represent rake-out from furnaces on the site. This deposit had been used to raise and level the ground surface. Finally, 0.2m of modern overburden mixed with scorched sand, ash and clinker formed the footing of a 0.1m thick poured concrete floor (3000). No archaeological features were present within the trench.

Trench 4

Trench 4 was mainly orientated east-west (Fig. 3). The natural subsoil (4001) was exposed at the eastern end of the trench, two industrial features (F403 and F404, Plate 2) were located to the west. Overlying the natural subsoil to the east of feature F403 was an uneven layer of light brown sandy-silt (4002), c. 0.35m deep, that had been heavily truncated by modern features and services. This layer produced three sherds of pottery dating to the 14th-15th centuries, the highly abraded surfaces of the pottery was suggestive of redeposition. Also cutting the natural subsoil was a small pit/post hole (F400) that was filled by a dark grey sandy silt containing pottery dating to the 17th-18th centuries, fragments of roof tile and brick, and tap slag (4003). This was overlain by an east-west aligned wall (F402). The wall was of brick construction to a depth of 0.4m with re-used sandstone blocks at the base. At the eastern end of the trench the subsoil (4001) was overlain by deposits of brick rubble and silt that butted against an east-west aligned wall (F401). These deposits were capped by a concrete floor (not illustrated) that also abutted wall F401.

The removal of modern building debris during salvage recording in the area surrounding feature F403 exposed the full extent of this below-ground structure. It was sub-square in plan, approximately 3.3m x 3.0m (Plate 1), and was cut into a yellow-brown sandy-clay, similar to the natural sub-soil. Central to the structure was a curved roof on a north-south alignment, with a 0.6m x 0.7m rectangular hole in the top that was reinforced with metal bands. The roof was constructed from two courses of bricks. The underside of the roof arch was heavily sooted, but not scorched. A flue or air vent was built into the south-western corner of the structure, the flue also

contained ash and clinker. Abutting the structure to the north were two less substantial walls (F405 and F406) c. 2.75m long. These walls were excavated to a depth of 1.0m and continued below that level. The whole of the northern side of the structure was open between these eastern and western walls and appeared to be hollow. It was filled with loose black ash that was also present at the entrance to the structure on the north side.

To the east was a linear brick-domed culvert (F404, Plate 2) orientated north-south. A section approximately 7m in length was exposed during salvage recording. It was c. 0.9m wide, 0.3m deep internally, and had a curved roof, constructed from a single course of stretcher bond bricks covered with mortar. At intervals along its length were rectangular openings and pipes and inlets into the side of the culvert. The southern end of the structure was exposed, adjoining an east-west aligned wall (F407) and a small circular opening with a metal lining (F409), c. 0.1m to the south. A brick wall (F408) abutted F407 together forming an L-shape, it ran parallel to F404 for a distance of 4.7m, appearing to be an integral part of the structure. The structure continued to the north, and may have connected with the furnace and flue system identified in Trench 5.

Trench 5

Trench 5 was orientated east-west. Excavation exposed the top of a series of industrial surfaces and features (Fig. 3). At the eastern end of the trench lay the remains of a furnace (F500, Plate 3) that had been levelled and the sides staved in. It was originally constructed using bricks and fire bricks, and the backfill consisted of scorched sand, clinker and fragments of burnt bricks. Immediately to the west of this was a square flue (F501), 0.7m x 0.7m, that would once have been the base of a chimney. It was scorched internally due to the searing hot air that it would have drawn from the furnace. Several brick floor surfaces and a sand floor were associated with these features (Plate 4). Some smaller brick features (F502, F503, F504, F505) probably include the remains of acid baths, and other hearths associated with metal working. The natural subsoil was not reached within this trench.

Trench 6

Trench 6 was orientated northwest-southeast. The natural subsoil (6000) was overlain by a series of levelling layers and dumps. A mixed light brown-orange silty-clay containing gravel and charcoal flecks (6001) within which were lenses and dumps of orange clay, brown-grey silty sand and light brown silt. Several modern service trenches were cut through this layer. Overlying this was a 0.2-0.3m thick layer of hard black charcoal-rich silt (6002) containing stones, this layer was also cut by several service trenches. The layer formed the footing for a poured concrete floor (6003). No archaeological features were located within the trench.

Trench 7

Trench 7 was aligned north-south. A concrete capped sewerage pipe was the only feature observed cutting the natural and excavation was stopped at that level.

To the north was a subterranean air raid shelter (F700) of covered trench shelter type (Lowry 1999, 67; Plate 5). It was constructed from prefabricated, reinforced, concrete panels that were formed to slot together without using metal bolts (Plate 6). The whole of the air raid shelter was exposed during salvage recording, and was shown to be 10m long and 2.5m wide and following a north-south alignment. The roof comprised rectangular concrete panels each 2.5m long and 0.37m wide. They were slightly thinner at the top and the gaps on the roof surface between each panel were filled with mortar. At 0.05m from each end there was a 0.05m x 0.1m groove into which the upright panels fitted. The roof panels were 0.17m deep, flat on the surface, corbelled internally (probably to help reduce their weight, and were reinforced with four steel bars. The upright panels that formed the eastern, western and southern walls were also hollow on their internal faces, measuring 0.35m wide. The northern wall comprised four upright slabs each 0.4m wide with an entrance gap 0.7m wide. All the concrete wall panels were 0.1m thick and were held in place by the grooves underneath the roof panels. The wall panels were 1.95m high, and the floor of the air raid shelter was of poured concrete.

The main access point was located at the northern end which was protected by a single brick blast wall, it may originally have had wooden steps or a ladder. An emergency exit 0.7m from the southern end of the shelter was a square hole in the roof, 0.6m x 0.6m, covered with a manhole cover.

Trench 8

Trench 8 was originally cut on an east-west orientation. The natural subsoil (8000) was overlain by a 0.3-0.5m thick layer of orange-brown clay (8001). This was sealed by a loose soft black deposit of ash, clinker and soot (8002), c.1m in depth. This deposit was cut by several service trenches. A poured concrete floor (8003) overlay the black levelling layer.

During the course of opening the initial trench a wall was observed and the trench was later extended to the south, forming a T-shape. The wall was subsequently identified as the northern elevation of a weighbridge (marked *WB* on the 1956 OS map, Watt 2000 Fig. 10, and Plates 7-9) located directly in front of the foundry gate. All internal fixtures and fittings had been removed and the sunken part of the structure had been backfilled. The weigh house, once situated to the west of the bridge itself, had been demolished and covered with a concrete floor.

7.0 The Pottery by Stephanie Ratkai

Table 1 Spot Dating

Trench	Context	Feature	Quantity	Date	Comments
1	1003	F101	75	mid 19 th c.	
1	1004		20	18 th c.	Single intrusive 19 th c. sherd
2	2003		35	1830's	
4	4002		3	14-15 th c.	
4	4003	F400	1	17 th -18 th c.	

Discussion

There were three medieval sherds from layer 4002, two, joining sherds in a coarse orange sandy ware and the third in a sandy white ware. The former come from a cooking pot with a plain angular everted rim. There is heavy external sooting and traces of internal glaze splashes. The whiteware sherd is an undiagnostic body sherd. Whitewares have their *floruit* in the 13th and 14th centuries in Staffordshire. The coarse orange ware resembles pottery of 14th-15th century date found at Dudley Castle.

Seventeenth and eighteenth century pottery is represented by coarsewares, blackwares and slipwares. The coarsewares vary from well made to very poor, sometimes with the glaze flaking away from the body of the pot. Both jars and pancheons seem to be represented. Blackwares have the dense purplish fabrics associated with the 17th century or else fine orange or buff fabrics which seem to belong to the 18th century. There were four feathered slipware sherds and two joining light-on-dark slipware sherds from a wide mouthed bowl. The latter was quite crude with a thick clean pale orange fabric. There was an external thin slip or wash and an internal tan glaze. The rim was decorated with two rather inept wavy bands of white slip. Despite the clean fabric there was a crudity about the manufacture and application of slip which suggested that this was not a Stoke product, and it may have come from a more local industry such as that in Wednesbury. The 17th and 18th century pottery occurred mainly in layers 1004 and 4003 although there were a small number of residual sherds in layer 2003.

The modern pottery which dominated contexts 2003 and 1003 was divided between kitchen wares eg jars and mixing bowls and table wares mainly plates dishes and bowls. Kitchenwares were particularly well represented in layer 1003 and were almost entirely made up of stoneware. This is in marked contrast to the previous century and it is possible that in Willenhall coarsewares were generally replaced by stoneware in the early-mid years of the 19th century, possibly because a local source of coarsewares had ceased production.

Modern table wares were made up of undecorated utilitarian white wares, blue transfer printed wares, sponged ware and industrial slipwares. There were two bone china sherds from layer 1003, one undiagnostic the other possibly from a saucer.

The character of the post-medieval and modern pottery is distinctly utilitarian. The industrial slipwares and sponged wares are associated with the poorer end of the market (pers comm. D Barker) and the assemblage as a whole suggests occupation by fairly poor households throughout the 18th and 19th centuries.

8.0 Discussion

Evidence for the Medieval development of Willenhall, particularly the planned extension of the settlement along Stafford Street, was scant. Just three abraded sherds of 14th-15th-century pottery attest to this period of Willenhall's past. Industrial development within the study area probably began some time in the 17th-18th centuries when the lock industry was expanding in the town and the buried soil located in Trench 1 is evidence for the occupation of the site during this period.

Industrial growth within the area had taken place (particularly in the vicinity of Trenches 4 and 5) by the time that the First Edition OS map was drawn up in 1887. It was probably around this time that the early foundry (the remains of which were located in Trenches 4 and 5) was established on the site. The arrangement of the buildings erected during this period remained little changed until the appearance of the Stafford Street Brass and Iron Foundry prior to the Ordnance Survey Map of 1956. And it must be that it was during this period, 1938-56, that the earlier foundry was razed. It is likely that this early foundry was involved in the lock making industry that would make Willenhall renowned.

The original layout of the whole foundry is still unknown, apart from the limited remains recorded in Trenches 4 and 5. During the 18th Century foundries developed small blast furnaces where pig iron could be remelted (Raistrick 1973, 47), and it is likely that the furnace located at the eastern end of Trench 5 is one of these *cupola*. The furnace must have been fed from the eastern end and the hot air was drawn out by the chimney/flue to the west. The various floor surfaces, and sand floors associated with casting, is suggestive of a workshop.

Later industrial development around the time of the second world war was expansive, and it was probably during this period that the weighbridge was constructed. The presence of an air raid shelter on a site such as this, in the industrial heartland of Britain, is not in itself unusual. During World War II many factories and foundries were turned over to the production of munitions and parts for aircraft, some were even protected by permanent anti-aircraft gun emplacements, such as HDA Forgings Ltd, Brockhill, Redditch (Nichol 1997, 1). Concern arose fairly early on in the war effort about the amount of production time that was lost to air raids (pers comm. Wilkes) which resulted in the installation of shelters on the premises of probable targets. The covered shelter trenches were commonly used to protect "school children, those living in narrow terraced streets, workers and those caught away from home" (Lowry 1999, 66)

They were constructed in a variety of forms from brick, or pre-fabricated concrete panels that could be put together on site. The idea was to keep production to a maximum and they were part of a system involving 'Jim Crows' (pers comm. Wilkes). Jim Crows were a team of people trained in identifying German planes who stood watch on roofs and only at the last minute, when planes were actually in sight, did they sound the siren, similarly sounding the all-clear at the first possible opportunity after the danger had passed. The combination of on-site shelter and Jim Crows meant that the workforce could continue production up to the last minute, and quickly return to their jobs when it was safe.

Similar shelters constructed from concrete, have been identified around the country such as one excavated at Dover (Burrige 1997, 62), being more common on airfields however (*ibid* 63). Several are known around the Midlands also; an example at Diglis Island, Worcester was designed to protect troops stationed there, and another may exist in Malvern (pers comm. Wilkes). The panels out of which the shelter was built may have been produced locally in Birmingham.

9.0 Conclusions

Changes in the level of the natural subsoil suggest that the site was originally on a slight slope, Stafford Street being laid out along the higher ridge to the east with a slope downwards to the west. When the site was levelled for the construction of the Brass Works and Foundry the area that would have been within the backplots of any structures fronting onto Stafford Street appears to have been scarped down. The spoil may have been spread onto the lower lying areas to the west where the ground level had to be significantly increased. It is within this area to the west, where the making up of the ground level occurred, that good archaeological preservation could be expected. Unfortunately, it is known from the cartographic evidence that the areas to the west had been largely open fields and crofts until the last two centuries. The trial trenching did not identify any medieval features on the site. The later industrial and civic defence features that were identified, however, contribute significantly to our understanding of the layout and working of the site from the post-medieval period, through World War II up to the modern day.

10.0 Acknowledgements

Stepnell Limited commissioned this report. Thanks are due to Mike Shaw who monitored the project on behalf of the Local Planning Authority, also Paul Charnock and Brendan Rourke from Stepnell Limited. Work on site was carried out by Erica Macey, Derek Moscrop, Kirsty Nichol, and Eleanor Ramsey. Special thanks are due to Graham Harper and Mick Jones for their careful and precise machining, also Ivor Catt and Nigel Law for their consideration on site and input into the overall interpretation of the site. Many thanks go to Mick Wilkes from the *Defence of Britain Project* for his help and interest. Thanks are also due to Steve Litherland for his interpretation of some of the industrial features, and to Stephanie Ratkai who scanned the pottery. Kirsty Nichol and Eleanor Ramsey produced the written report which was illustrated by Mark Breedon and edited by Alex Jones, who also monitored the project for BUFAU.

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APPENDIX I

Other Finds *by Kirsty Nichol*

Brick

TR. 2 2003
6 x Clamp-made

Tile

TR. 1 F101, 1003
2 x Quarry
2 x Roof

TR. 1 1004
4 x Roof

TR. 2 2003
16 x Roof

TR. 4 4003
5 x Roof

Glass

TR. 1 F101, 1003
1 x modern green wine bottle

TR.1 1004
3 x base of globular-bodied, dark green glass early-mid-18th century bottle

Slag

TR. 2 2003
4 x glass slag

TR 4 F400, 4003
1 x tap slag

Clay Pipe

TR. 2 15 fragments of stem

Bone

TR. 1 1004

TR.2 2003

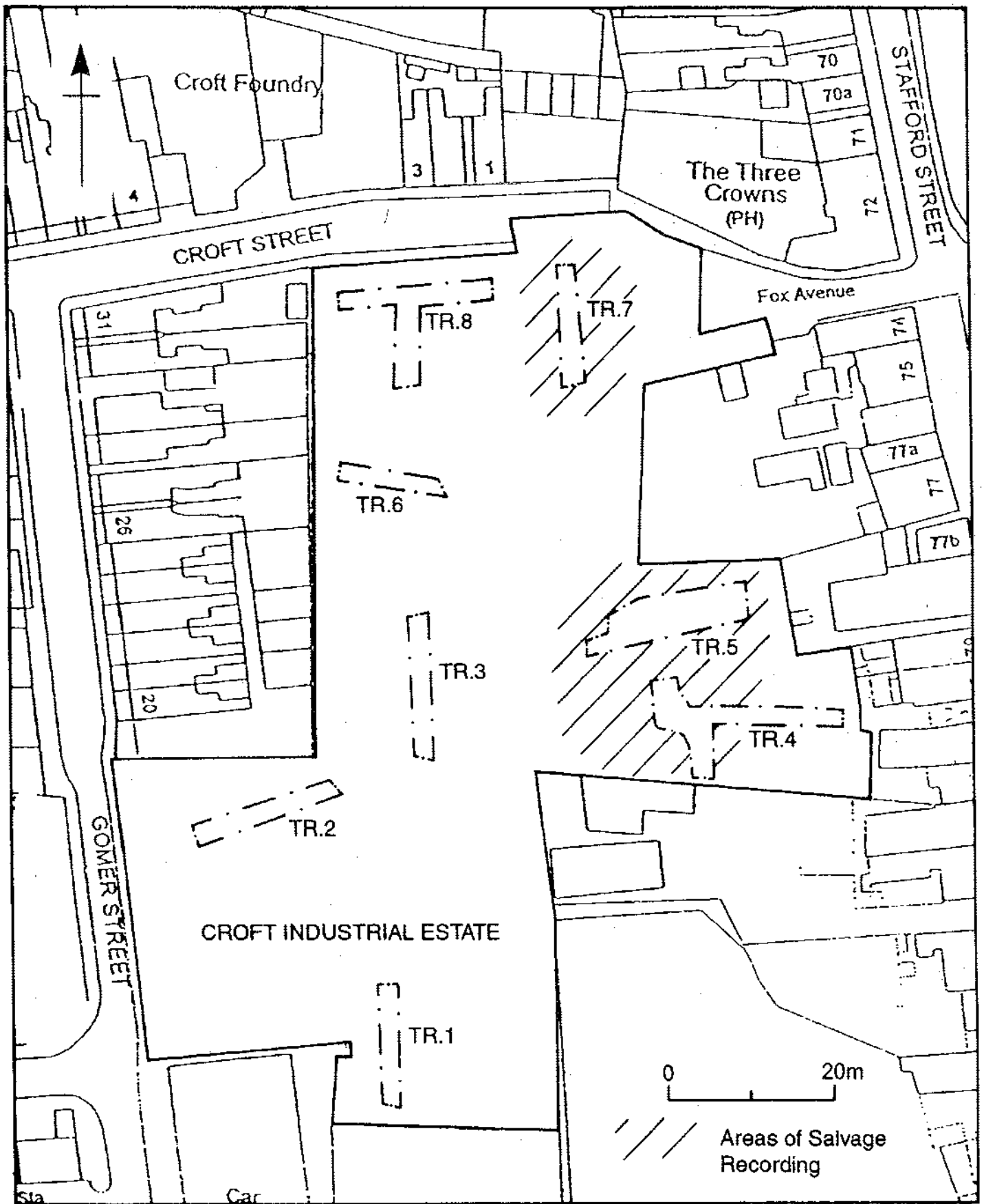
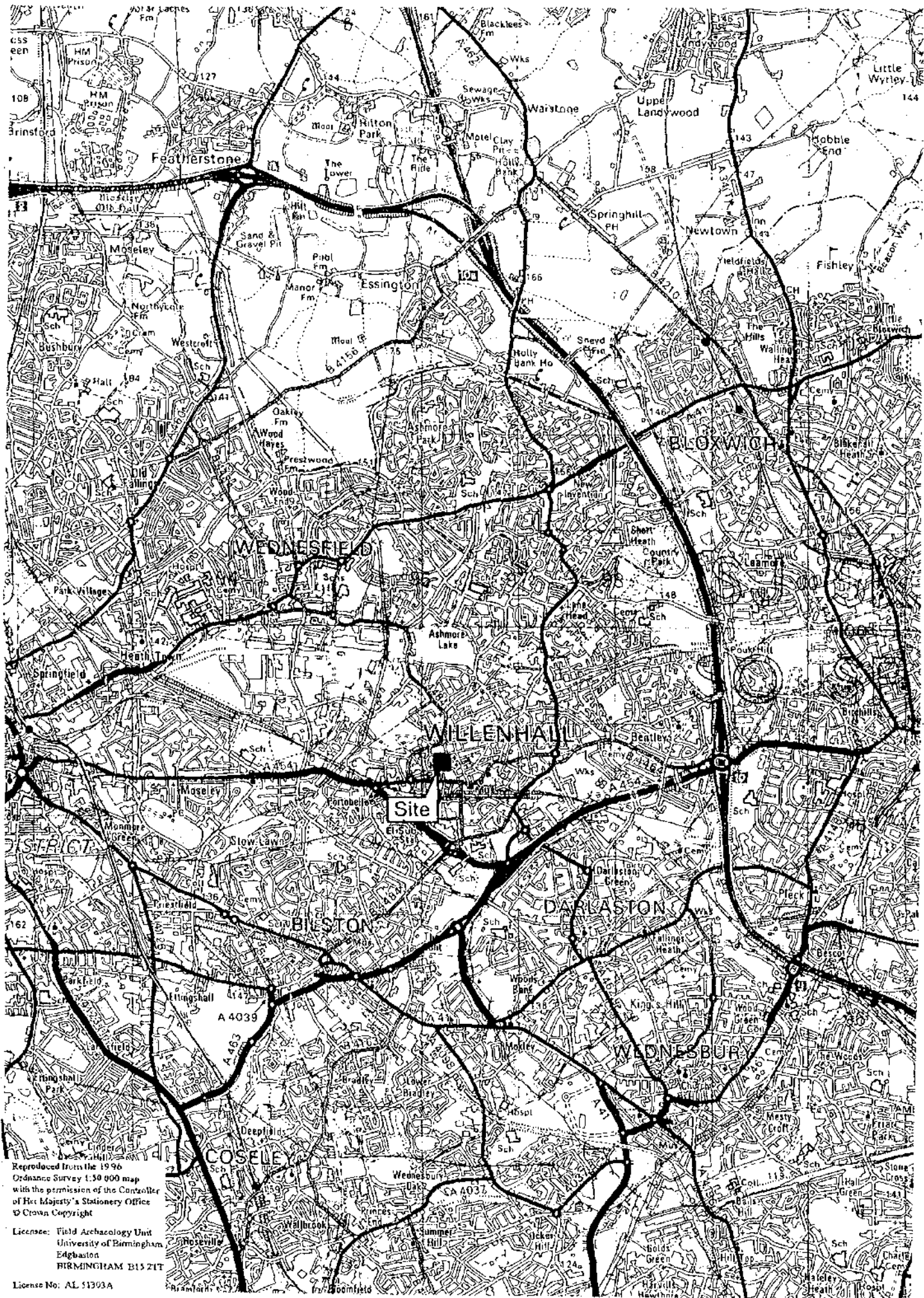


Fig.2



Reproduced from the 1996
 Ordnance Survey 1:50 000 map
 with the permission of the Controller
 of Her Majesty's Stationery Office
 © Crown Copyright
 Licensee: Field Archaeology Unit
 University of Birmingham,
 Edgbaston
 BIRMINGHAM B15 2TT
 License No: AL 51393A

Fig.1

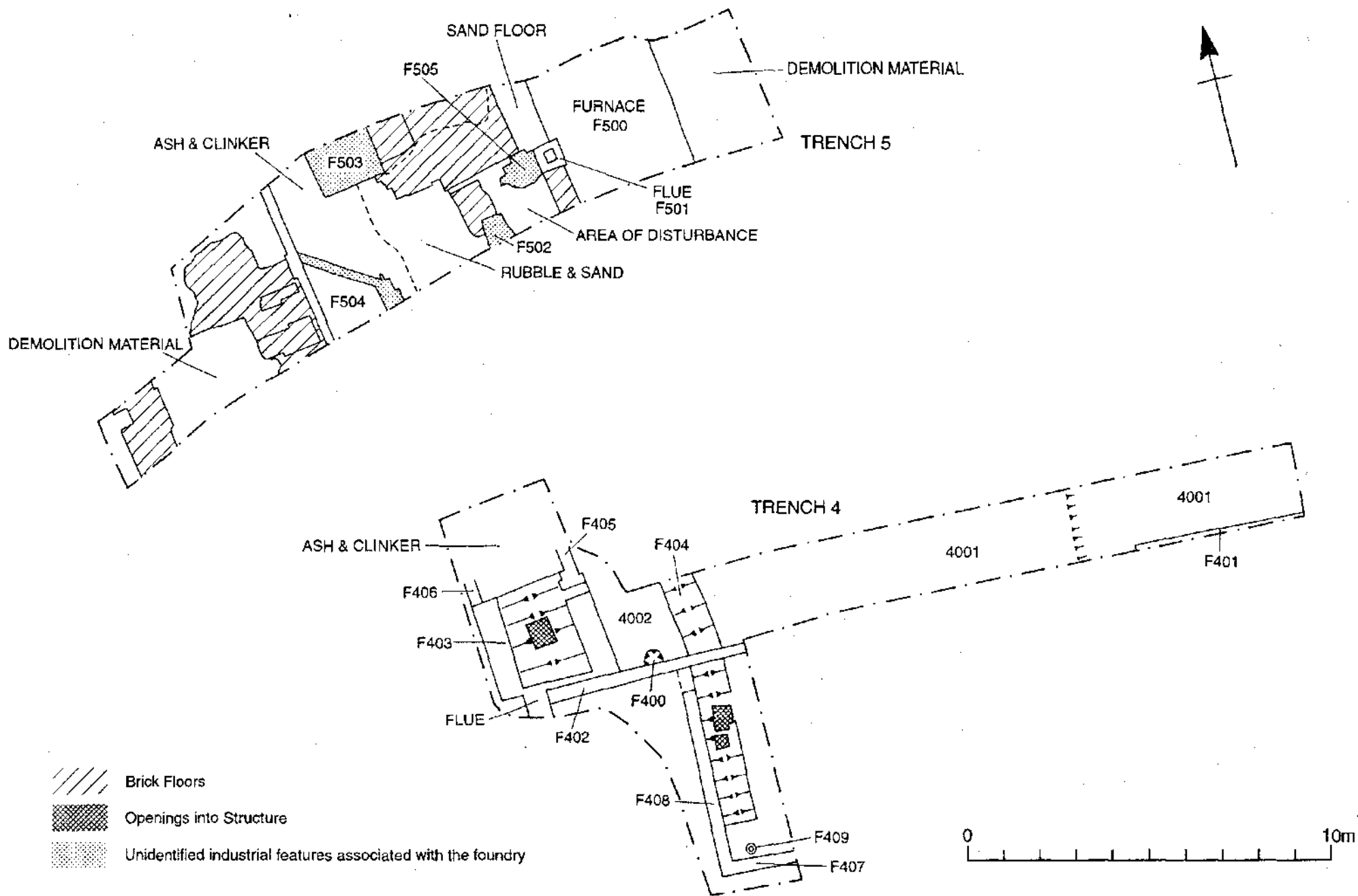
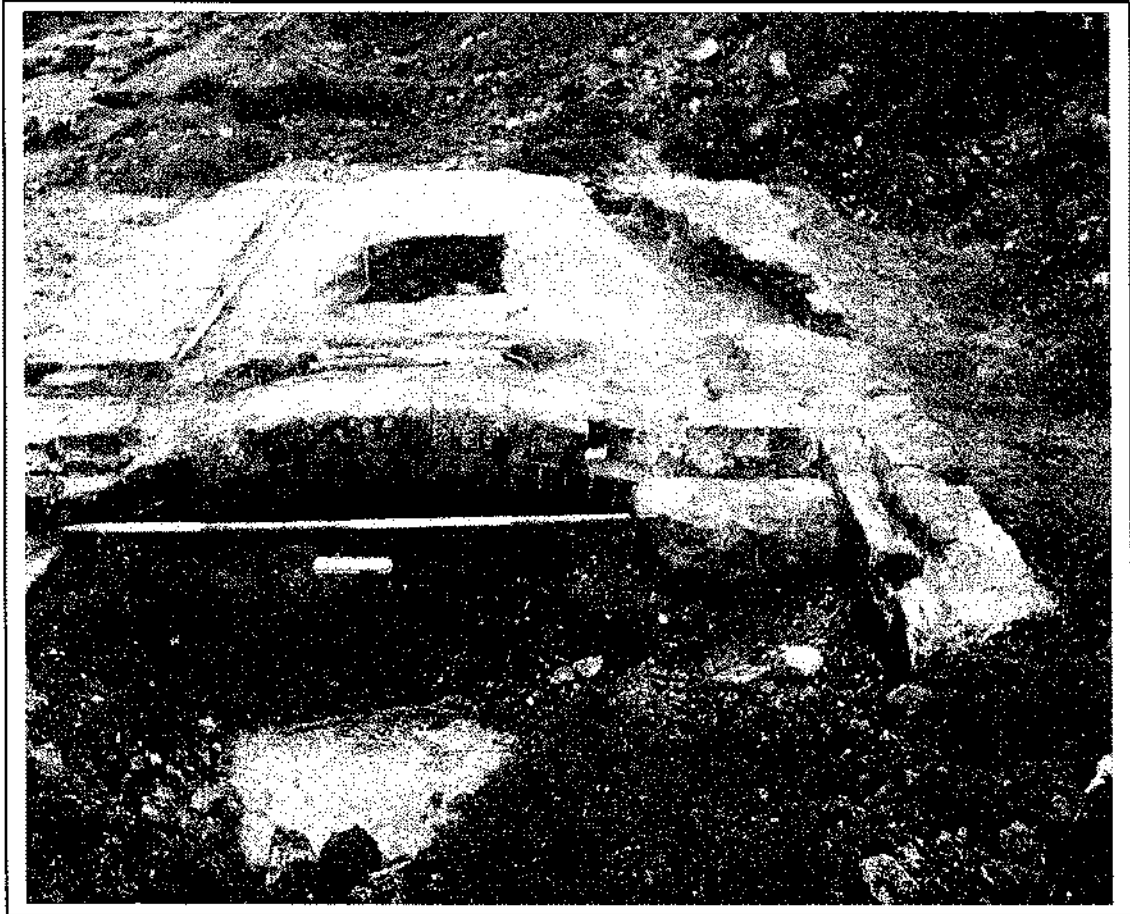


Fig.3

Plate 1



Detail of the brick arch and piers of F403

Plate 2



F404 in plan (facing south)

Plate 3



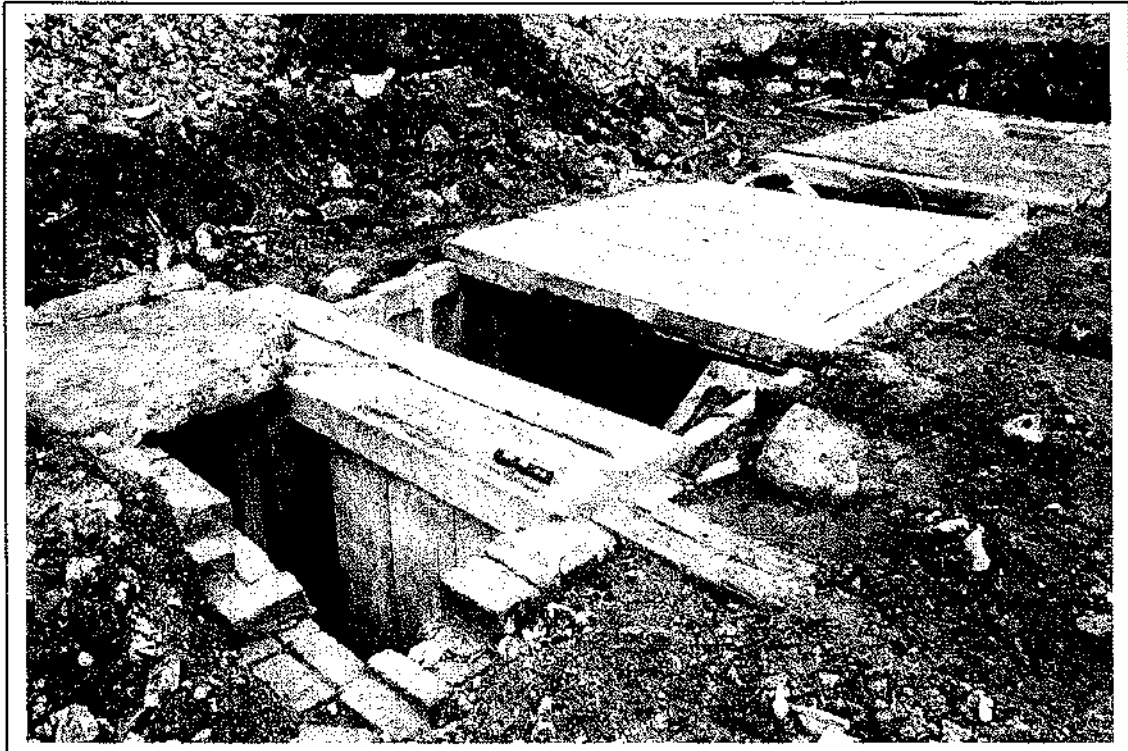
The furnace (F500) with the flue (F501) in the foreground

Plate 4



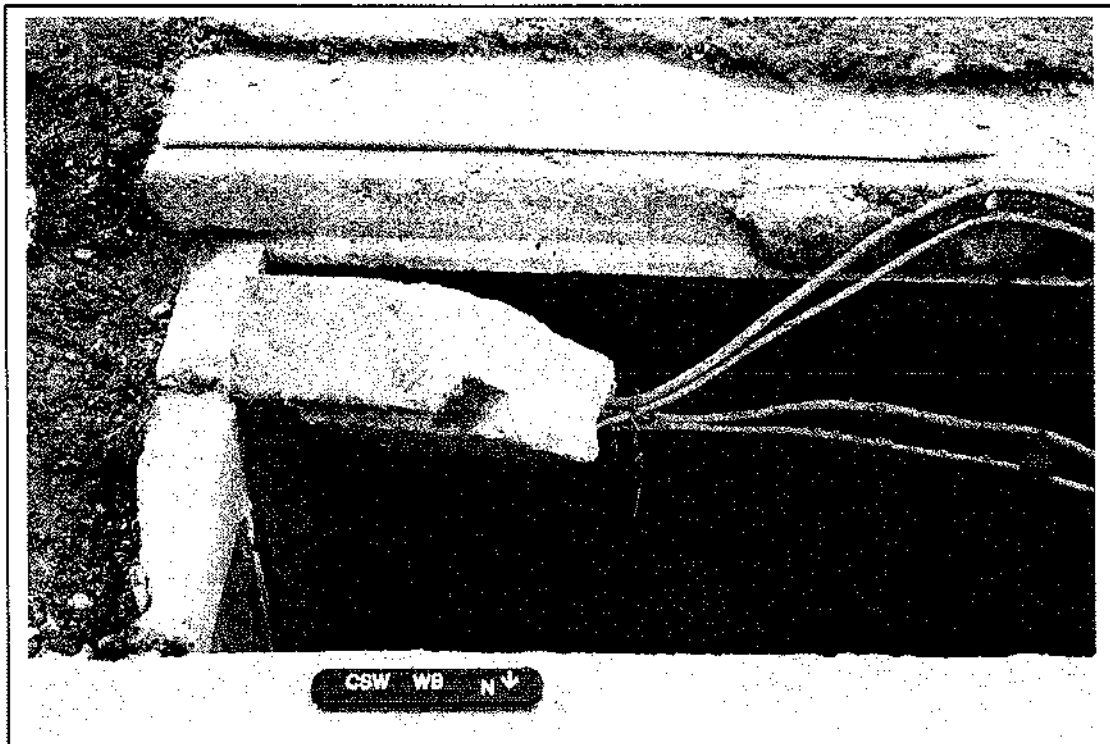
Brick and sand floors associated with furnace

Plate 5



General view of air raid shelter (F700), brick built blast wall to the fore and the emergency exit to the rear

Plate 6



Detail of prefabricated concrete panels

Plate 7

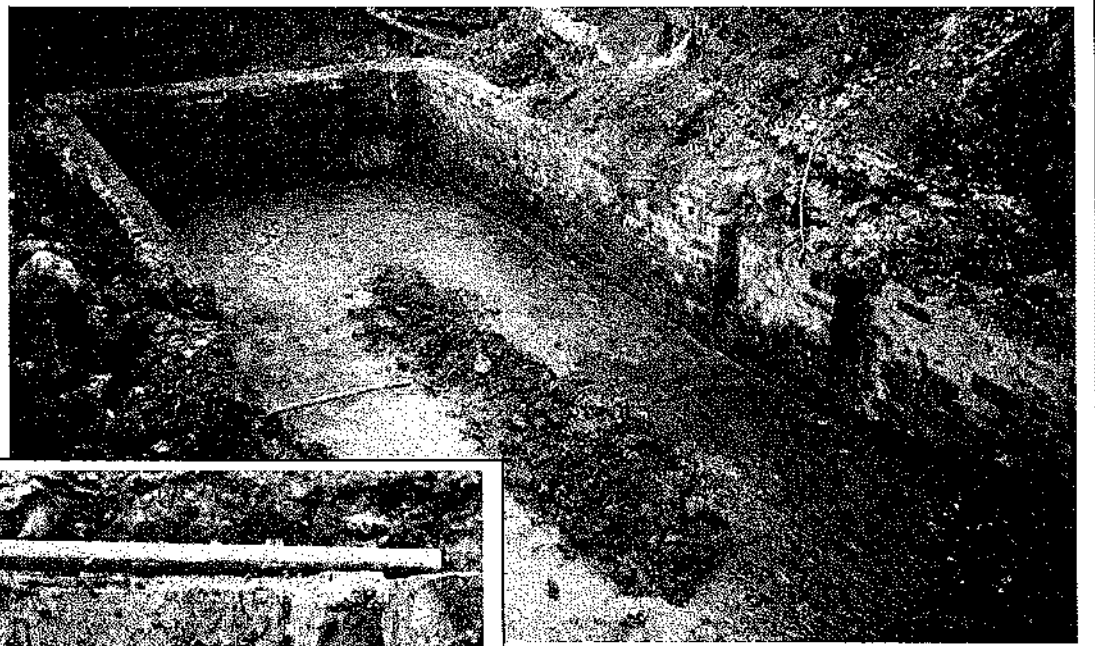
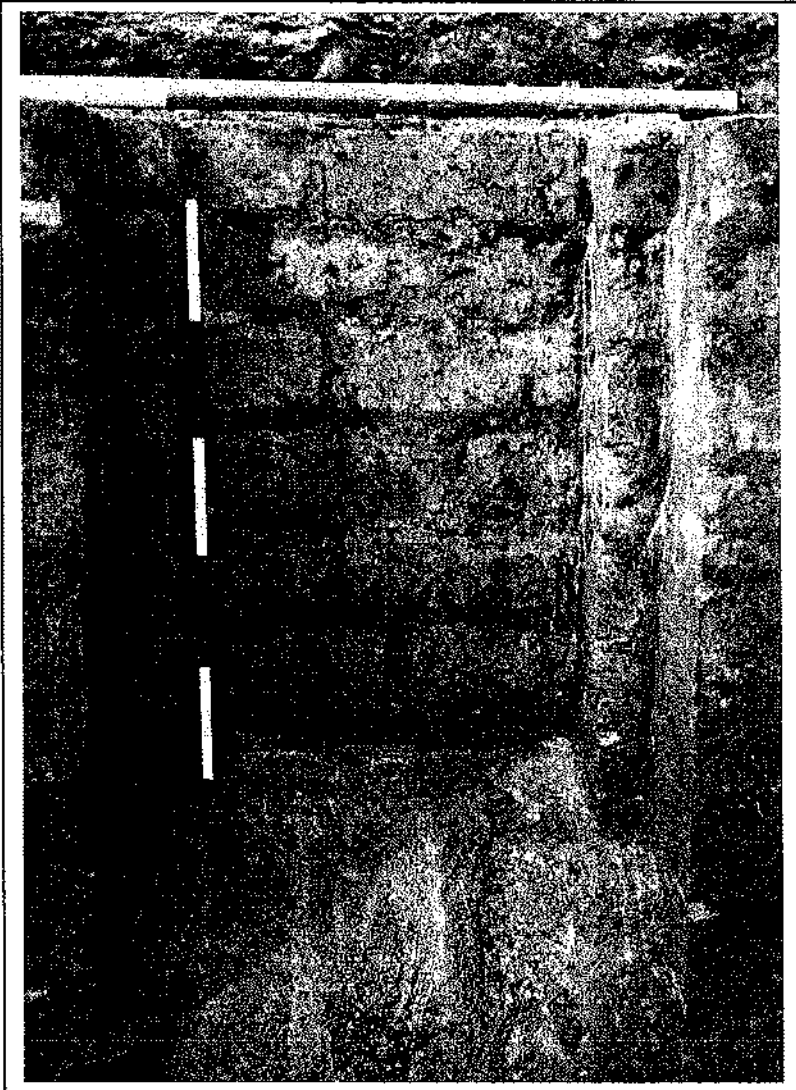


Plate 8



Above General view of Weighbridge

Left and below Details of internal features

Plate 9

