

## A DESK-BASED ASSESSMENT AND BUILDING APPRAISAL OF THE CANLIN CASTINGS LTD SITE, LANGLEY MILL, DERBYSHIRE





## A DESK-BASED ARCHAEOLOGHICAL ASSESSMENT AND BUILDING APPRAISAL OF THE CANLIN CASTINGS LTD SITE AT LANGLEY MILL, DERBYSHIRE

A report for Canlin Castings Ltd

by Richard Sheppard

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### SUMMARY

- This desk-based archaeological assessment and building appraisal by Trent & Peak Archaeology (TPA) was commissioned by John Church Planning Consultancy Limited on behalf of Canlin Castings Limited. It is in relation to the potential future development of an industrial site at 1 Eastview Terrace, Langley Mill for new residential use (planning application number AVA/2009/0847). The site lies within the north part of Langley Mill, only one mile east of the centre of Heanor in Derbyshire. It is within Amber Valley, close to the River Erewash.
- The Canlin Castings Ltd site is a complex of mainly single-storey brick-built industrial buildings that date from the second half of the 19<sup>th</sup> century, through to the second half of the 20<sup>th</sup> century, covering an area of about one hectare. Although the buildings are not listed they are deemed to be of considerable local interest, especially in relation to the history of iron and steel foundering in the area. The site has been a working foundry for over 140 years and is still producing industrial castings, both ferrous and non-ferrous, for a variety of specialist uses and customers.
- The settlement of Langley Mill owes its very existence to its industrial past. In the 18<sup>th</sup> century it was a small collection of buildings scattered around a road crossing of the River Erewash (Langley Bridge). Being on Middle Coal Measures geology coal was exploited in a number of small pits on Langley Common. The settlement started to grow with the opening of the Erewash Canal in 1779 and two others shortly after, with Langley Mill becoming an important junction for canal traffic. The Midland Railway came through the Erewash valey in 1847 and in 1851 White's Directory described Langley Mill as a considerable village.
- The Canlin Castings site was first developed in 1868 by Messrs Turner and Pinder on land west of the railway and next to an existing brickworks. However, the *Ilkeston Pioneer* reported that the buildings, having just been completed, were blown down by heavy winds. The site was rebuilt and later became known as the Langley Mill Engineering, Wheel and Wagon Works. The 1880s proved to be a difficult time and the business collapsed. In 1895, after 6 years of dormancy, the site was taken over by Pickersgill & Frost, specialist stovegrate manufacturers and ironfounders, who named it *Star Foundry*. They used the site until 1969, when it was taken over by the present owners Canlin Castings Ltd.
- The site probably began as two parallel ranges, with thin brick walling set between exposed cast-iron columns, and roofs supported on timber trusses. The furnaces may have been concentrated at the north end of the east range. The site quickly expanded and a lithograph of the site from just before 1900 shows a busy site at its zenith, with the main hot foundry activities (using cupola furnaces) based in or next to the eastern range (where it still is today). The other main ranges were used for fettling (preparing castings), preparing mouldings and for storage; there were separate offices and stables. The site expanded to a lesser extent in the 20<sup>th</sup> century, with a new fireplace showroom added in c.1945.
- Whilst the Canlin Castings Ltd site has no structures of any particular architectural merit and presents only minor scope for further information through archaeology, it is a rare survival in the East Midlands generally of an intact, largely unaltered and still working mid-late Victorian utilitarian-built foundry.

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## 1. Project background

This desk-based archaeological assessment and building appraisal by Trent & Peak Archaeology (TPA) was commissioned by John Church Planning Consultancy Limited on behalf of Canlin Castings Limited. It is in relation to the potential future development of an industrial site at 1 Eastview Terrace, Langley Mill for new residential use (planning application number AVA/2009/0847). The site lies within the north part of Langley Mill, only one mile east of the centre of Heanor (Fig. 1). It is within the Derbyshire District of Amber Valley and close to the River Erewash, which forms the county boundary with Nottinghamshire.

When considering planning applications involving the potential development of sites or buildings deemed to be of special historical or architectural interest, specific briefs may be prepared by planning authorities for an historical / archaeological survey to be prepared. Such reports involve the consulting of known written, documentary, cartographic and archaeological sources.; these include the county-based Historic Environment Record. Buildings present may be the subject of an appraisal, requiring an on-site examination to allow for a brief written description (building materials, likely date, changes and development) and a basic photographic record to be made.

The overall study here employs the methodology developed by Trent & Peak Archaeology (TPA) for use on similar projects in the region. This methodology conforms to the standard requirements of planning authorities where consent applications are made for development, re-development or building conversion. These follow guidelines to be found in the conservation planning documents *Planning Policy Guidance Note 16: Archaeology and Planning* (PPG 16, Department of the Environment 1990) and *Planning Policy Guidance Note 15: Historic Buildings and Conservation Areas* (PPG 15, Department of the Environment 1993). The methodology also accords with the *Institute of Field Archaeologists (IFA) Codes of Conduct and Standards.* 

The site of Canlin Castings Ltd is a complex of mainly single-storey brick-built industrial buildings that date from the second half of the 19<sup>th</sup> century, through to the second half of the 20<sup>th</sup> century. The site covers an area of over one hectare and the current site plan with individual buildings and their component parts (numbered from 1-9) is shown in Figure 9. Although the buildings are not listed they are deemed to be of considerable local interest, especially in relation to the history of iron and steel foundering in Langley Mill. As well as the remaining buildings there is a high possibility of below-ground archaeology relating to the earliest buildings still remaining on the site. The site has been a working foundry for over 140 years and is still producing industrial castings, both ferrous and non-ferrous, for a variety of specialist uses and customers. Further details of what it produces can be found at its website <u>www.canlincastings.co.uk</u>.

### The report

This report is the result of two specific information-gathering tasks. Firstly, a documentary search carried out by **Alison Wilson** of TPA initially at the Hallward Library and the now separately located Manuscripts Department at the University of Nottingham. Further research was then carried out at Derbyshire Local Studies Library (DLSL) in Matlock and at online sources such as the webpages of the Heanor & District Local History Society. Site visits were made by the author on 18<sup>th</sup> and 21<sup>st</sup> January and 2<sup>nd</sup> February 2010. On these occasions archival photographs (both film and digital) were taken, together with some measurements and notes based on observations of the exterior elevations and internal features of the existing buildings. No architects' plans were available at the time. The author is grateful to John Church for providing what documents were available at the time.

The TPA site code is CCD.1. The archive accession number supplied by Derby Museum & Art Gallery is DBYMU 2009-205. The archive of field notes, digital files (photos, scans etc) and film negatives and prints will be deposited by July 2010.

## 2. Historical background

The settlement of Langley Mill owes its very existence to its industrial past. In the 18<sup>th</sup> century it existed as only a small collection of buildings scattered around a road crossing of the River Erewash (Langley Bridge), with a nearby corn mill. The local geology being Middle Coal Measures, coal was exploited in a number of small pits on Langley Common and over the county border towards Eastwood in Nottinghamshire.

With the opening of the Erewash Canal in 1779 coal could now be transported from wharves close to the bridge and taken to the River Trent. Two other canals were built shortly after, the Cromford Canal and the Nottingham Canal, with William Jessop then constructing the Langley Mill Great Northern Canal Basin in 1796 (Palmer and Neaverson 1992, 108). This allowed Langley Bridge to become an important toll-paying junction for canal traffic, and where a network of horse-drawn tramways could bring coal to the wharves. The bridge over the river was rebuilt *c*.1830.

With the coming of the Midland Railway through the valley in 1847 the focus of settlement started to shift away from the Nottingham side by the River Erewash and the canals, towards the railway to the west, on the Derbyshire side (Hull 1978). The settlement was becoming known as Langley Mill and in 1851 White's Directory was describing it as a considerable village, with large coal wharves, a corn mill, extensive brickyards and lime kilns. Woodward and Horsfield Iron & Brassfounders and Engineers were listed as being present in the village. This works was probably situated close to the east side of the railway. It was either taken over by or joined shortly after by an engineering works run by Messrs Turner, Pender and Goulder (Heanor & District Local History Society 1987).

In 1853 the *Ilkeston Pioneer* reported that a brick plant would soon be in operation at Langley Mill, one capable of producing 20,000 bricks a day. This was probably the one situated just south of the Canlin Castings site and a map of 1881 shows that it had three coal pits nearby providing fuel for its furnaces (Fig. 4). Figure 3 shows pits and mines in the vicinity of the Canlin Castings site known to the British Geological Survey. Another larger brickworks was built near Ormonde Street, east of the railway not long afterwards. In 1855 the Heanor Gas Light and Coke Company was founded just south of the smaller brickworks, and a pottery on another site in the same year.

The Canlin Castings site was first developed in 1868 by Messrs Turner and Pinder on land adjacent to the railway and within an area probably already exploited by the adjacent brickworks. The latter provided the bricks for the new works. The beginning is well recorded because of a freak event. On 6<sup>th</sup> February 1868 the *Ilkeston Pioneer* ran the following headline and story:

#### A FOUNDRY BLOWN DOWN AT LANGLEY MILL

The terrific gale of Friday night and Saturday morning, which proved so disastrous in various parts of the country, was exceedingly boisterous at Langley Mill. And amongst many other accidents of a minor kind which happened was the entire demolition of a newly built iron foundry belonging to Messrs Turner and Pender. The building was just completed, and the owners were about to fit it up with machinery. Mr Turner, however was rather apprehensive of danger; consequently he visited the premises early in the night. He remained there until half-past seven o'clock, but although portions of the building vibrated from the gale, he thought all would be safe, and returned home about half-past eight o'clock, however two men named James and William Brighouse, who were burning bricks in a shed in the immediate neighbourhood of the foundry, hearing a noise resembling the report of a number of muskets went outside, and there discovered that the foundry was giving way. The remainder of the scaffolding yielded first, pieces flying about in all directions, and as the open side of the building was just in a position to receive the wind, a sudden gust came down the hill and carried the roof, together with a portion of the walls, right away. The iron pillars reeled about and shortly afterwards the strong beams and rafters which supported the interior yielded also, and the iron window frames left their places and were scattered to the ground. In the course of the night the gable end was also blown down; and nothing now remains standing perfect except the chimney. The next morning the bricklayers went to resume their work, but to their surprise, they found the place a complete wreck. A great deal of the debris was found pressing heavily upon the fence which runs parallel with the railway, and the men immediately commenced gathering the fragments. The immediate pecuniary loss to the proprietors will be very considerable; but it would have been much greater it the foundry had been stocked with machinery, as was contemplated during the present week. But the loss is not the only thing to be considered, as it is most likely that a suspension of business will be the result, for it is almost impossible to erect another place by the time the lease expires. The building was not contracted for, neither was it insured, consequently Messrs Turner and Pender will have to bear the entire damage. Amongst the other accidents that occurred in this district was one which, though trifling in a pecuniary point of view, is so singular as to be worthy of notice. A truck used for conveying cattle stood on the line near to the station, and being rather "top-heavy" the wind got under the roof and carried it away.

Despite this unfortunate start the Turner and Pinder works was clearly rebuilt, much in the same style as before with cast iron pillars and window frames and with brick walls. Accommodation for workers was provided in nearby East View Terrace. This was also known as Pinder's Row after Robert Pinder who was to eventually run the rebuilt works after his partner established a new steelworks under the name G. R. Turner Limited in 1874 at Vulcan Works, east of the railway. On the 1881 Ordnance Survey map the Canlin Castings site is shown as the Langley Mill Engineering, Wheel and Wagon Works.

The story of an employee named Joseph Harrison is instructive about this period (Waterall, 1993). Born in 1861 to a father employed as a blacksmith at this works, Joseph started work in the foundry in 1875 and was apprenticed as a moulder before being awarded the title of journeyman moulder in 1882. Four years of his apprenticeship were spent at the iron foundry, after which he was transferred to the crucible steel foundry part of the business, which was probably on another site. However, the 1880s proved to be a difficult time with many lay-offs due to work shortages. Joseph emigrated to the USA in 1888, perhaps as a result of the foundry business being in serious trouble.

On the 18<sup>th</sup> October 1895 the *Ripley and Heanor News* reported under the heading 'Opening of Ironworks' that:

'The old Langley Mill Engineering Company's works, which for the past six years have been in a dormant state, have recently been thoroughly renovated and fully equipped for the manufacture of stove grates etc by a well known firm from Derby. The opening of a new branch business of this kind will be of great benefit to the district, as upwards of 130 hands are employed.'

The new owner of the site was the established Derby company of Pickersgill & Frost, stovegrate manufacturers and ironfounders. It is at about this time that the name *Star Foundry* is first used for the Canlin Castings site. In 1895 Bulmer's directory described the village of Langley Mill as a hive of industry and Ordnance Survey maps of the period show a sizeable settlement, but with housing still concentrated around the roads to Cromford and to Heanor (Fig. 2). Whilst the Vulcan Iron Works was by far the biggest employer with 350 hands, Pickersgill & Frost was a specialist concern which became a limited company in 1897 and decided to concentrate its production in Langley Mill. Some of their products are shown in Figure 12.

The Star Foundry probably reached its zenith in *c*.1945 when it employed 95 staff (Hull 1964). Up until then it was supplied with pig iron from blast furnaces at Stanton and Staveley, coke from Durham and enjoyed easy access to the railway. Little scrap was used. By the early 1960s the scrap content of its supplies had reached 60% and 1200 tons of castings were being produced annually. In 1963 the sidings from the railway were uprooted and in 1969 the Star Foundry was acquired by Canlin Castings. Meanwhile, Turner's had become part of Redpath Dorman Long Ltd, then part of United Steel and it finally closed in 1980. The Star Foundry is now the longest surviving metal-working works in the area.

## 3. Building descriptions

### See Figure 9 for the plan showing the numbered buildings

**Building 1 (Plate 3):** Offices, situated close to the site entrance. Brick-built (Flemish garden bond) with moulded dentilation at eaves level and lower plinth. Slate roof, stacks, modern windows and flat stone lintels. Replaced staircase on east side. The south side has two low level windows that were doorways and the upper walling still bears the title PICKERSGILL & FROST LTD, although now getting obscure. Probably built *c*.1895 by new owners.

**Building 2 (Plate 3):** Former stable-block, now used as shower-house and WC (replacing Building 9). Has similar brickwork, dentilation and slate roofing to Building 1, but with rounded arches above window openings on the east and south sides. There are no openings on the other two sides. The east frontage is much altered with the relatively recent change of use. Probably built *c*.1895 by new owners.

**Building 3 (Plate 4):** Former fireplace showroom, now used as storage for adjoining Pattern Room. Brick-built (Flemish garden bond) with blue brick and concrete dressings, several stacks, porch entrance and metal-framed windows typical of the 1940s, when built. Lower level has single large room, a small office, WC and a loading bay (extended out at later stage). Stairs at back (now blocked off) rise to an upper messroom, now reached by a separate staircase from the outside. In the 1980s it was used by a small two-man operated pottery.

**Building 4 (Plate 4, 5):** Five-bay long brick-built west range, onto which Building 3 was added. Has original tall cast-iron windows with rounded arches, and a staircase that originally went to an upper floor, since destroyed by fire, leaving a flat roof over the surviving lower floor. Sliding doorway in the south wall still charred from fire. Garage / loading bay added to east side in 1940s. Room now used as Pattern Shop.

**Building 5A (Plates 6, 7):** Row of three east-west brick-built ranges, each a tall single-storey high with metal roofing and skylights. Brickwork a mixture of original English bond and later Flemish garden bond. Of irregular plan, 10 bays long on south side and 9 on north side. South elevation had a series of large openings and latticed metal-framed windows above, as shown in a view of c.1900 (Plate 1). These were mostly filled in when lean-to 5B was added but one unaltered bay remains at the east end (Plate 6). The north back wall is buttressed with large brick pillars to support the wall where the ground-level is higher to the rear. The central part of the east wall has a large opening with a wide relieving arch showing above it on the outside (Plate 8). The long dividing walls between the rows are now largely removed, with stubs left at each end and the replacement steel-frame roof is supported on intermediate metal columns. A row of three diesel-powered furnaces were situated at the east end of the Building but only upper parts of their flues now remain *in situ*. A wheeled gantry mechanism

and a tramway still run the length of the middle range. The floor area betrays no sign of former below-ground openings. The Building is now used largely for storage.

**Building 5B:** Narrow brick-built lean-to running most of the length of 5A, with a taller section above an entrance through into 5A at its east end. Still has timber half-trusses. Now used as fitting shop.

**Building 5C:** Infill section between Buildings 5A and 6D/6A, including a single brick-built room (Flemish garden bond) with a tall entry on its south side (Plate 6). Houses an air filtering system.

**Building 6A:** Central original part of the middle north-south running range, 9 bays long and a tall single-storey high with timber queen-post trusses and struts (Plate 13). The north end wall is much altered but retains an infilled former window (Plate 9). Most of the east side wall is made up of exposed (on both ides) cast-iron columns of 9 inch diameter, with single-brick thick walling in between (Plate 11), paralleling the west wall of Building 7A opposite. The west wall consists solely of brickwork including pilasters to support the upper timberwork and with round-arched window openings still open (whilst those in the east wall are infilled). Brickwork above the tops of the columns shows that the roofing has been raised. The building was probably the fettling shop where castings were cleaned and prepared. There are no obvious disturbance to the flooring area.

**Building 6B:** Seven bay long south extension to 6A, with similar window openings (also blocked on the east side) and possible rebuild of walling at the north end of the west side to accommodate a new side entry for vehicles. A raised hard floor area towards the north-west corner suggests an area for former heavy machinery, adjacent to the entry into Building 6C. The roofing consists of trusses with king-posts and struts. Probably once part of the fettling shop, the area is now used for dispatch.

**Building 6C:** An added-on small brick (English bond) structure with hipped roof and distinctive large semi-circular headed openings (Plate 12). Probably once housing a power source or transformer, it is now the Test Room.

**Building 7A:** Northern original part of the east north-south running range, 10½ bays long and a tall single-storey high with timber queen-post trusses and struts (Plate 16). West wall is built of brick and integral cast-iron columns in first 8 bays, whilst the most northerly bays show infilled and current entries and remnants of an external brick plinth (Plate 14), indicating a differentiation within the building when first used – this is paralleled with Building 6A opposite. The east wall is fully rebuilt in brieze-block. The south wall has an infilled window showing and the large opening on the west side (repeated in other walls the full length of the range, allowing full north-south movement) is probably the original doorway but since enlarged. The north end retains the base of a large chimney

stack on the outside, signifying that this part (including an east extension since lost when the railway was widened, and former structures next to and close to the stack) had once had furnaces present. The walling here has been infilled and there is now little evidence of the former activity here.

**Building 7B:** Two bay extension to the south, contemporary with 7C but with dividing wall between the two. This part has been partly open on the west side to a cupola furnace, immediately outside the building, in an area since cleared (but now with a concrete base supporting upright sand blending tanks). Part of the base support for the cupola shows below the infilled lower west wall (Plate 17). The roofing here is of steel but this may have replaced an earlier timber one. Walling on the east side is original brick with windows now infilled. Now used to store materials for use in 7C.

**Building 7C:** Tall 5-bay section with windows on two levels but no evidence of an upper floor. All brick-built with timber queen-post trusses. Original cast-iron windows remain in place (Plate 21). A low, wide brick arch showing in the central bay of the west wall (and modern brick on the outside) may signify another external furnace had been in this position. The floor area was and still is the large castings area. The present-day furnaces are situated on a platform at the north end (Plate 18), with run-off pits showing in the floor below the platform. This is the main production area of the present-day foundry (Plate 19).

**Building 7D:** Further 6-bay extension to the south, of lower height than 7C but with similar queen-post trusses and a steel gantry complex below it. Similar window openings on either side to those in rest of range to north. Now filled with equipment for cleaning and preparing castings.

**Building 7E:** Further 2-bay extension with metal-frame roof. Small openings in south end wall suggest it may have housed air treatment equipment.

**Building 7F**: 6-bay long mid 20<sup>th</sup> century shed / possible garage built of smallish bricks (all stretchers) and upright concrete pillars, no windows and corrugated roof (Plate 20). Later widened entry at east end to allow through-passage into 7E. Later brickwork at west end. Currently used for storage.

**Building 7G:** Small room, divided by an internal brick arch above a former opening directly into 7D. Built out to west, and added walling within 7D to form an office, with windows looking onto the floor of 7D. Heated by a fireplace / stack added on the south side. Now used for storage.

**Building 7H:** Added lean-to range, brick construction (Sussex bond) and with brieze-block at north end. For storing hardener materials. Later extended to south (7J) to fill gap with 7G.

**Building 8:** 9-bay long mid 20<sup>th</sup> century shed / garage built of smallish bricks (all stretchers) and upright concrete pillars, no windows and corrugated roof

(Plate 22). South end rebuilt to allow for smaller doorway. Sign shows 'Small Pattern Store.'

**Building 9:** Mid 20<sup>th</sup> century red brick (Sussex bond) building that housed WCs and bath-house. Now abandoned due to proximity of modern housing and resulting complaints from neighbours (pers. comm. R. Canlin).

### 4. *Development of the Site* See Fig 10 for suggested phasing of the site

The Historic Environment Record data from 0.5km around the Canlin Castings Ltd site is sparse, with the site in question the main entry. Despite a development of the area that included coal pits, limekilns, brickworks, gas, pottery and metalbased industries, together with attendant roads, housing and social facilities, no significant archaeological artefacts are recorded from the area. None are expected should the site be developed, especially so as the map evidence suggests that the site was exploited for clay by the neighbouring brickworks before 1868.

Examination of the overall evidence suggests that the site may have started with two north-south ranges (6A and 7A), running parallel to the Midland Railway. Both appear to have been insubstantially built with one-brick thick walls set between cast-iron columns for 8 bays, certainly on the sides facing each other, but whether on the outer sides remains unclear. The north end bays are distinguished by being solely of brickwork, perhaps because all main entries were at the north ends. Building 7A was perhaps the main foundry furnace area, as is suggested by the remaining base of a large chimney. An eastern extension, since lost under the railway, may have been a smithy. The general flimsiness of this phase of construction is perhaps highlighted by the fact that the buildings collapsed shortly after construction. That they have remained intact since the rebuild, with some evidence that the roofs have been raised, is noteworthy.

Between 1868-1881 the site expanded significantly, despite the fact that one of the founding partners was preoccupied in building up a separate works nearby, one that was probably specializing in steel. A lithograph of the site that perhaps dates to just before 1900 (its source is unclear), as Building 4A does not appear, shows a busy site with the main hot foundry activities still based in or next to the eastern range. There is what looks like a vertical cupola furnace showing outside Building 7C. Stacks show close to this, at the ends of the range and at the northwest corner of the middle range (6D). Because the early buildings appear to have been built with timber trusses there may have been a policy to keep furnaces on the outsides of the main buildings to diminish fire risk. Although part of Buildings 4A and 6D are known to have been partly destroyed by fire, the east range appears not to have suffered such damage, despite the likely risks.

The area of 6D may have been used for casting smaller items, with fettling and finishing works carried out in the rest of the range. A large chimney evidently stood in the north-west corner so the melting of metal may have occurred here too. The lithograph shows a now lost southerly extension to 6A crowned by a curved tin roof and a bell above the gable-end of Building 6A – the latter apparently fell down in 1969 when the site changed ownership (pers. comm. R. Canlin).

The west range, 5A, is largely open on the south side and was probably the main storage area for materials and finished items. The lithograph shows the site at its height. All subsequent buildings on the site represent only extensions for additional space, perhaps with the exception of Building 3, which was used as an on-site showroom.

Both documentary evidence and on-site evidence points to the site having always been a specialist iron foundry, despite having been called an engineering works prior to the name *Star Foundry* appearing in *c*.1900. The reference to Joseph Harrison being transferred to the 'crucible steel foundry part of the business' suggests that such activities were not carried out on the site. However, the business was clearly struggling towards the end of the 19<sup>th</sup> century, perhaps due to increasing competition, and it was only able to continue by becoming the main site of a specialist concern which took advantage of its direct transport links to its material sources and markets.

That the site has continued to function for over 140 years with minimal rebuild of fairly basic utilitarian structures, or the urge to undertake so-called 'modernisation' is somewhat remarkable. There is probably some below-ground archaeological potential in those parts of the site where furnace / smithy activities were concentrated at the start but the general use of cupola furnaces requiring only heavy bases may mean that this will not be significant. The areas considered to be of highest interest or potential are shown in Figure 11. Other structures and railway lines have also been on the site and there may be remains of these surviving in parts of the site. The one reminder of the railway connection is a remaining timber gate at the far north end of the site (Plate 23).

In conclusion, the Canlin Castings Ltd site retains no structures of any significant architectural merit and may present only minor scope for further illumination through archaeology. However, it is a rare survival of an intact and working mid-late Victorian utilitarian industrial complex within the general area. This makes it more than just a site of mere local historic interest. Few foundries are listed in gazetteers of industrial archaeology for Derbyshire or the East Midlands generally. That it continues to function and provide specialist products and employment for skilled workers at a time of serious economic pressures and with encroaching residential development on its borders is both unusual and significant.

## 5. References

Anon. 1965. Heanor Official Town Guide and Industrial Handbook.

Bulmer., 1895. History & Directory of Derbyshire.

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Hull, R., 1964. *The industrial and economic development of a part of the Erewash Valley – the Langley Mill area.* Typescript.

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Palmer, M. and Neaverson, P., 1992. *Industrial Landscapes of the East Midlands*. Phillimore, Chichester.

Waterall, W. E., 1993. 'Sketch of early life of Joseph W. Harrison.' *Heanor & District Local History Society Newsletter* 184.

White., 1851. History and Gazetteer of Derbyshire.

The Heanor and District Local History Forum at www.chatarea.com/HeanorDistrictLocalHistory

# **APPENDICES**

### Brief for a Desk-Based Archaeological Assessment and Buildings Appraisal

Site Name: Canlin Castings, 1 Eastview Terrace, Langley Mill Grid Reference: (centred) SK 4480 4752 Area of site: 1.04ha Issued by: Steve Baker (Development Control Archaeologist for Amber Valley Borough Council) Issued to: John Church Planning Consultancy Limited Date: 23<sup>rd</sup> November 2009

#### **1** Introduction

1.1 Canlin Castings Ltd has submitted a planning application AVA/2009/0847 for the residential development of just over a hectare of land at Canlin Castings, 1 Eastview Terrace, Langley Mill.

1.2 Given the archaeological and historic buildings interest in the site, the Development Control Archaeologist has recommended in line with the provisions of PPG16 and Policy EN31 of the Amber Valley Local Plan, that an archaeological desk-based assessment and buildings appraisal of the site should be submitted as part of the application.

1.3 The objective of the desk-based assessment/buildings appraisal is to provide the Development Control Archaeologist with sufficient information on the known and potential archaeological interest and the likely impact of the proposed development upon the archaeological interest, to offer an informed planning recommendation to the Local Planning Authority. The document should seek to develop a formal assessment of the importance of archaeological remains using the Secretary of State's criteria as set-out in Annex 4 of Planning Policy Guidance note 16 (1990) (PPG16).

1.4 This brief has been prepared by the Development Control Archaeologist to enable the appointed archaeological contractor to prepare the desk based assessment/buildings appraisal to an appropriate standard.

1.5 A draft of the desk-based assessment/buildings appraisal must be submitted to the Development Control Archaeologist for approval/revision in advance of formal submission to AVBC.



Fig. 1: The proposed development site

#### 2 Background

2.1 As far as the Development Control Archaeologist is aware there have been no previous archaeological investigations within the area of the proposed development.

2.2 The buildings on site are not listed, but include 19<sup>th</sup> century factory buildings of considerable local significance in relation to the history of iron and steel foundering in the Langley Mill area. The site was probably in use as a foundry from the mid 19<sup>th</sup> century, and was the original home of the famous Langley

firm of G R Turner before its move across the Midland Railway to the Vulcan Works site in 1874. The 1<sup>st</sup> Edition Ordnance Survey of c1880 shows the site as 'Langley Mill Engineering, Wheel and Wagon Works', and the northern and eastern ranges of factory buildings were present by this date, as was the long range adjacent to the railway. By c1895 the site is shown as 'Star Foundry (Iron)' and part of a western range had been added to the main foundry complex. In 1895 the foundry became the home of Pickersgill and Frost who developed as manufacturers of solid fuel cooking and heating applicances and were eventually taken over by Canlin Castings, with additional buildings added during the 20<sup>th</sup> century.

2.3 It is also possible that below-ground archaeological remains relating to the earlier phases of foundry use (casting pits etc) may survive within the site.

#### 3 Methodology

3.1 The **desk-based assessment** will consider all available cartographic, photographic, historical documentary and index records that relate to the site. The following documentary sources should certainly be consulted and included in an analysis of the development of the site:

- i) Geotechnical data: where available from within or immediately adjacent to the site;
- ii) **Cartographic sources:** Ordnance Survey, parliamentary enclosure, tithe award maps, other historic maps, geological survey;
- iii) **Photographic sources:** Any aerial or historic photographs relevant to the site (Derbyshire HER, Derbyshire Local Studies Library, Derby Museum, Derbyshire Records Office);
- iv) Historical documents: held in local museums, libraries and archives. Primary sources should be consulted where it is appropriate.
- v) Trade and business directories & gazetteers
- vi) Relevant pictures/engravings
- vii) Archaeological, historical or industrial journals, books or documents: published and unpublished, particularly those most relevant to understanding the development of this area (i.e. Derbyshire Archaeological Journal);
- viii) **Records and indexes:** held by the Derbyshire Historic Environment Record, Derbyshire Archaeological Society;
- ix) Local societies: Derbyshire Archaeological Society has an extensive library and a number of members with a detailed knowledge of local resources.

3.2 The assessment should include a list of all HER records within a 500m radius of the site. This should be indexed to a map showing the location of each record indexed by its HER number.

3.3 The analysis of the cartographic evidence should include a mapped chronological regression of the development of the site closely integrating observations from the maps into the text.

3.4 The assessment should include the results of a detailed walk-over survey, and include a representative series of photographs of the site and maps showing located features. The identity, position and direction of all photographs should be located on a site plan in the report.

3.5 The assessment should explicitly consider the evidence for previous land-use and how this may have impacted upon questions of archaeological potential. The ground conditions, geology, geomorphology and patterns of contemporary land-use should be clearly identified and, where appropriate, mapped.

3.6 Where information obtained through oral accounts or discussions is to be used to interpret the development of site, transcripts of such accounts or discussions should be included in the report.

3.7 The **buildings appraisal** should cover all standing buildings on site, and should include a survey plan showing the locations of all buildings, at least one external and one internal photograph of each building (although more will be necessary for complex or extensive buildings), and a brief written description of each building detailing materials, likely date, use(s) and development.

3.8 The buildings appraisal should also include maps showing the chronological development of the foundry site.

3.9 Site photography should be of archive quality and should comprise 35mm SLR black-and-white print photography, supplemented by *either* 35mm SLR colour slide photography, *or* digital colour photography using a digital SLR camera of at least 7 megapixel resolution.

#### 4 Health and safety

4.1 Archaeologists visiting the site will naturally operate with due regard to health and safety regulations.

#### **5** Monitoring

5.1 The work should be undertaken by suitably qualified and experienced staff. In this case, the author and field staff must have significant appropriate experience of industrial archaeology and historic buildings archaeology. Staff responsibilities must be made known to the Development Control Archaeologist in advance, and where the relevant staff members are not known to the Development Control Archaeologist as recognised industrial/historic buildings specialists, CVs should be submitted as evidence of relevant experience.

#### 6 Report Preparation

6.1 Bound copies should be provided for the interested parties including the developer and their agent, Amber Valley Borough Council, the Development Control Archaeologist and the Derbyshire Historic Environment Record. A draft of the desk-based assessment/buildings appraisal must be submitted to the Development Control Archaeologist for approval/revision in advance of formal submission to AVBC. This can be done electronically.

6.2 A digital copy of the report including illustrations and photographs (pdf format) should be submitted to the Derbyshire Historic Environment Record.

6.3 The report should include as a minimum

- Non-technical summary
- Introductory statement
- Aims and purpose of the assessment
- Methodology
- An objective account of available information including walk-over survey (with photographs).
- Register of standing buildings including photographs and written descriptions of each.
- Formal assessment of importance (to include below-ground archaeology and each standing building)
- Conclusion and recommendations
- Supporting illustrations, photographs and plans at appropriate scales
- Supporting data tabulated or in appendices
- Index to archive and details of archive location
- References
- A copy of this brief
- A copy of the OASIS form

6.4 The report illustrations should include: a location map at not less than 1:25000 and a site plan at not less than 1:500; copies of all historic map extracts consulted (where possible) with the boundary of the site clearly depicted (see 3.3); a plan showing the location of all HER records within a 500m radius; a plan indicating positions of photographs used within the report; a plan showing locations of standing buildings, cross-referenced to the written descriptions and photographs; plan(s) showing the historic development of the foundry buildings. All illustrations need to be suitably labelled or captioned.

#### 7 Submission and deposition of project archive

7.1 As it is probable that the assessment will be followed by further fieldwork, arrangements should be made **from the outset of the project** for the archive, consisting of artefacts, record sheets, original drawings, drawn plans, photographs, notes, copies of the all reports along with an index to the archive to be deposited in Derby Museum and Art Gallery, in accordance with the procedures set-out in "Procedures for the Transfer of Archaeological Archives" (2003) (a copy is available upon request from either the Museum or the Development Control Archaeologist).

Your museum contact will be: Derby Museum and Art Gallery The Strand Derby DE1 1BS Tol 01332 716659 Fax 01332 716670 museum@derby.gov.uk 7.2 At the start of work (immediately before fieldwork commences) an OASIS online record <u>http://ads.ahds.ac.uk/project/oasis/</u> must be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form must be completed for submission to the HER. This should include an uploaded pdf version of the entire report (a paper copy should also be included with the archive).

#### **8** Publicitation

8.1 Contingency publication costs must be built into agreed project budgets from the outset. Where no further publication is envisaged then a summary of the project, with selected drawings, illustrations and photographs, should be submitted within 2 years of the completion of the project to Derbyshire Archaeological Journal for publication. A sheet of instructions for contributors is attached.

Notes for contributors to the Derbyshire Archaeological Journal of interim and short reports on developer funded archaeology:

The aim is to publish annual compilations of short reports on developer funded archaeology in the county on a regular basis in the *Derbyshire Archaeological Journal*, in order to better inform the public of the results of the work being undertaken.

It is envisaged that the reports will take one of two forms;

<u>Interim reports</u> – short interim descriptions of an excavation or survey that will eventually be subjected to fuller publication.
<u>Definitive reports</u> – summaries of archaeological work which will not be pursued further. Note that even if the results were negative, if valid questions were posed then a brief explanation will be worthwhile.

MODEL – see attached pages from 'Some Fieldwork in Derbyshire by the Trent & Peak Archaeological Unit in 1998-9' edited by Graeme Guilbert and Daryl Garton, *DAJ* vol. 121 (2001): 223-5. Number 18 is an example of an Interim report and numbers 19 to 20 are examples of definitive reports.

#### DETAILED NOTES

Set individual reports out in alphabetical order of site names.

NGR should follow site name, followed by names of those responsible for the report and/ or fieldwork.

Give due acknowledgement to sponsors of project within text.

Definitive reports should include whereabouts of the related written, drawn and photographic archive, as well as any artefacts. Illustrations – include line drawings and/or photographs if appropriate.

References - include where appropriate at the end of each report.

#### FUNDING

The Derbyshire Archaeological Society will require an offer of grant-aid towards the printing costs of short reports submitted in order to guarantee publication. Costs will be determined from the printer's estimate. A contribution towards these costs of around 60% will be sought from the relevant contracting archaeological organisation. For further information contact Pauline Beswick (Hon. Editor), 4 Chapel Row, Froggatt, Calver, Hope Valley, S32 3ZA or tel. 01433 631256.

#### DEADLINE

Reports received by the end of July will be considered for inclusion in DAJ in the year following. If too late they will be saved for consideration for the succeeding year.

#### Reports to be submitted in hard copy and on disc to:

Steve Baker at Environmental Services Department, Derbyshire County Council, Shand House, Dale Road South, Matlock, Derbyshire DE4 3RY.



## OASIS DATA COLLECTION FORM: England

List of Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

#### **Printable version**

#### OASIS ID: trentpea1-69570

#### **Project details**

Project name	Canlin Castings Development
Short description of the project	A desk-based assessment was undertaken in connection with proposed development for residential use of a site containing 19th century factory buildings of local significance for the history of iron and steel foundering in the area.
Project dates	Start: 17-12-2009
Previous/future work	No / Yes
Any associated project reference codes	CCD - Sitecode
Any associated project reference codes	AVA/2009/0847 - Planning Application No.
Type of project	Desk based assessment
Methods & techniques	'Documentary Search'
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Direction from Local Planning Authority - PPG16
Project location	
Country	England
Site location	DERBYSHIRE AMBER VALLEY ALDERCAR AND LANGLEY MILL Canlin Castings, Eastview Terrace, Langley Mill
Study area	1.04 Hectares
Site coordinates	SK 448 475 53.0226104028 -1.332025479670 53 01 21 N 001 19 55 W Point
Project creators	
Name of Organisation	Trent and Peak Archaeology
Project brief originator	Development Control Archaeologist
Project design originator	Richard Sheppard

Type of Developer sponsor/funding body Name of **Canlin Castings** 

sponsor/funding body

Entered by Eileen Appleton (eileen.appleton@nottingham.ac.uk) Entered on 18 December 2009



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# **ILLUSTRATIONS**



**Figure 1:** Location of the Canlin Castings Ltd site at Langley Mill, near Heanor in Derbyshire. Not to precise scale.



**Figure 2:** The extent of Langley Mill and its position in relation to the canal and railway system of the Erewash valley near the end of the 19th century. The position of the Canlin Castings Ltd site (then Pickersgill & Frost Ltd) is highlighted by the arrow. Part of Ordnance Survey One Inch map revision of 1895. Not to precise scale here.



**Figure 3:** Proximity of known a former coal pits or mine shafts (circle with cross symbol) within the Middle Coal Measures geology to the Canlin Castings Ltd site in Langley Mill, Derbyshire. Not to precise scale.



**Figure 4:** The Canlin Castings Ltd site at Langley Mill, Derbyshire, as shown on the First Edition Ordnance Survey 25 inch scale map of 1881. Scale 1:1,000. The present south boundary is overlain as a red line.



**Figure 5:** The Canlin Castings Ltd site at Langley Mill, Derbyshire, as shown on the Second Edition Ordnance Survey 25 inch scale map of 1900. Scale 1:1,000. The present south boundary is overlain as a red line.







**Figure 7:** The Canlin Castings Ltd site at Langley Mill, Derbyshire, as shown on the Ordnance Survey 25 inch scale map of 1938. Scale 1:1,000.







**Figure 9:** Present ground plan of Canlin Castings Ltd, Langley Mill, Derbyshire, showing separate buildings and parts of numbered, structures removed / added since 1962 and viewpoints of plates in report. Scale 1:1,000.



**Figure 10:** Suggested phase plan of the buildings at Canlin Castings Ltd, Langley Mill, Derbyshire. Scale 1:1,000.



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**Figure 11:** Canlin Castings Ltd, Langley Mill, Derbyshire: Suggested areas of possible archaeological survival with potential for adding to the understanding of the site's development. Scale 1:1,000.





**Figure 12:** Examples of the products of Pickersgill & Frost Ltd: A-C: grates and a flue set dating from 1898, 1922 and 1963 respectively (from Hull 1964); D: from an advertisement in *The Heanor and District Carnival Programme* 1932 (reproduced in *H&DLHS Newsletter* 256).

# **ILLUSTRATIONS**

# PLATES



Plate 1: Lithograph portraying a bird's-eye view from the south-west of the Canlin Castings Ltd site drawn before 1900.



**Plate 2:** General view taken from the entrance of the west part of the Canlin Castings Ltd site at Langley Mill, Derbyshire.



**Plate 3:** Buildings 1 and 2 (offices to left, former stables to right) at the Canlin Castings Ltd site at Langley Mill, Derbyshire.



**Plate 4:** The Canlin Castings Ltd site at Langley Mill: the east frontage of Building 3, with an extended loading-bay, and the south end of Building 4 to the far right (stairway entrance).



**Plate 5:** The Canlin Castings Ltd site at Langley Mill: interior view of Buildings 4, now used as the Pattern Shop.



**Plate 6:** The Canlin Castings Ltd site at Langley Mill: the east end of the south frontage of Building 5A (to left, with entry door and windows above, as shown in the 19th century lithograph) and, to right, infill structure 5C with tall entry and sloping roof.



**Plate 7:** The Canlin Castings Ltd site at Langley Mill: interior view of the back of Building 5A, (now used for storing patterns), showing metal-framed roofing and brick buttresses.



**Plate 8:** The Canlin Castings Ltd site at Langley Mill: part of the now hidden east frontage of Building 5A, showing an original window frame and, to right, an opening with part of a large relieving arch showing above, to top right.



**Plate 9:** The Canlin Castings Ltd site at Langley Mill: north end of Building 6A (with blocked window to left) and metal roof truss of now largely rebuilt Building 6D.



**Plate 10:** The Canlin Castings Ltd site at Langley Mill: view looking from the north-east corner of Building 6D showing the full east side of the middle range.



**Plate 11:** The Canlin Castings Ltd site at Langley Mill: exposed cast iron pillars showing in the east external wall of Building 6A, with straight joint to extension 6B showing to far left.



**Plate 12:** The Canlin Castings Ltd site at Langley Mill: west side of the middle range, with Building 6A showing to far left, 6B to right and 6C (Test House) in centre.



**Plate 13:** The Canlin Castings Ltd site at Langley Mill: queen-post timber trusses in Building 6A, as originally used in all the pre-1900 structures on the site.



**Plate 14:** The Canlin Castings Ltd site at Langley Mill: north end of Building 7A showing the base of a large chimney, the scar of a former lean-to and, to right, part of the west frontage with infilled former openings and cast iron pillars showing to far right.



**Plate 15:** The Canlin Castings Ltd site at Langley Mill: two-storey tall Building 7C with, to left, a sand tank (where a cupola furnace once stood) and, to right, additions 7D-E and 7H.



**Plate 16:** The Canlin Castings Ltd site at Langley Mill: interior of Building 7A (small castings floor) showing gantry system, brieze-block walling to left and and brick and cast iron pillar walling to right.



**Plate 17:** The Canlin Castings Ltd site at Langley Mill: base of a former external cupola furnace showing in the west wall of Building 7B.



**Plate 18:** The Canlin Castings Ltd site at Langley Mill: present-day furnaces at the north end of the large castings floor in Building 7C.



**Plate 19:** The Canlin Castings Ltd site at Langley Mill: molten iron being poured into moulds in the large castings floor in Building 7C.



**Plate 20:** The Canlin Castings Ltd site at Langley Mill: south end of Buildings 7E (to right) and 7F (to left).



**Plate 21:** The Canlin Castings Ltd site at Langley Mill: cast iron window frame in the west wall of Building 7C now hidden within extension 7H.



**Plate 22:** The Canlin Castings Ltd site at Langley Mill: Buildings 8 (pattern store) to left, and 9 (former bath-house) to right.



**Plate 23:** The Canlin Castings Ltd site at Langley Mill: remaining wooden gate at the top right corner of the site, where railway sidings from the adjacent Midland Railway once entered the site.