LAND SOUTH OF KINGFISHER BOULEVARD NEWBURN RIVERSIDE PARK TYNE & WEAR

ARCHAEOLOGICAL ASSESSMENT



FEBRUARY 2022

The Archaeological Practice Ltd.



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Frontispiece: Aerial view of the site (Courtesy of Google Earth)

Report title:	Land South Of Kingfisher Boulevard, Newburn Riverside Park, Tyne &
	Wear. Archaeological Assessment.
Stage:	Final
Project code:	AP 22/04
Compiled by:	Terry Frain & Marc Johnstone
Control:	Richard Carlton
OASIS ID:	thearcha2-505314
Date issued:	03/03/2022
Planning reference:	PRE/20/242/PS
Grid reference:	NZ 18870 64100
Client:	The Home Designers

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SUMMARY

This report constitutes a desk-based cultural heritage assessment commissioned to accompany an application for development of currently empty land adjacent to Kingfisher Boulevard on the Newburn Riverside site in west Newcastle. The appraisal undertaken by The Archaeological Practice Ltd. incorporates an audit of both discrete and more extensive historical landscape components and presents a synthesis of the overall chronology of the defined area in order to identify potential cultural heritage constraints within the area of the proposed development and provide recommendations regarding work required to mitigate the potential impact of the proposed scheme of development.

The report collates evidence from a wide range of sources, including historic maps, secondary historical works, excavation reports and the Northumberland Heritage Environment Record (HER). A site visit was also undertaken. This has resulted in the identification of a total of 38 sites and monuments within or in the vicinity of the proposed development site which provide contextual information regarding the archaeological and historical development of the area.

There is no direct evidence for prehistoric or Roman activity on the site, or indeed in the immediate surrounding area, but given the existence of a nearby fording point across the river, as well as Newburn being the highest navigable tidal point, activity from these periods cannot be discounted.

Settlement of the surrounding area is known to have been established by medieval times, with Lemington, Newburn, and Blaydon villages dating to this time. Subsequent to this, the development of the coal and related industries saw the area become increasingly occupied, though again none of these are known to have taken place upon the current site itself.

Only by the later 19th century, following the alterations to the River Tyne in this area, do we begin to see activity on the current site. The establishment of the Anglo Great Lakes Munitions Works from the time of WWI, followed by the Anglo Great Lakes Carbon Works in the 1950s all directly impacted the current site.

The depth of excavation required to reach potential archaeological levels in the southern part of the site (the former river channel), and the level of disturbance and contamination likely to have been caused by the munitions and carbon works across the remainder of the site mean that the a proposed redevelopment of the site is unlikely to encounter any such remains.

Thus, although the possibility cannot be entirely discounted, it is considered unlikely that any archaeological remains are present on the current site, but development of the site is likely to have some impact on any surviving sub-surface features, should they exist.

Based on the findings of the assessment, it is recommended that geo-technical bore-holing should be used to inform any proposed redevelopement proposals in the south part of the site, while the depth and extent of chemical contmillation should be assessed by specialists prior to any archaeological considerations in the north part of the site. The results will assist the Tyne and Wear Archaeology Officer develop further mitigation strategy which, if considered feasible, would consider targeted watching brief during groundworks associated with development.

1. INTRODUCTION

1.1 Purpose of Assessment

This assessment, prepared by The Archaeological Practice Ltd., has been commissioned to accompany an application for development of currently empty land adjacent to Kingfisher Boulevard on the Newburn Riverside site in west Newcastle. The purpose of the assessment is to inform the planning process regarding cultural heritage significance of the site and the likely or potential impact upon the cultural heritage resource of the proposed development. The study represents the first stage in a programme of archaeological work which may subsequently include evaluation and mitigation works.

1.2 Planning Background

The National Planning Policy Framework – NPPF (MHCLG 2019) enables planning authorities to request assessments of archaeological potential in order to ascertain the nature and extent of any remains likely to be impacted by development, and inform upon appropriate mitigation measures. At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development (NPPF – see MHCLG 2019, 5), which effectively means that local planning authorities should positively seek opportunities to meet the development needs of their area; and will tend to favour granting planning permission to developments which meet this criteria, unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits.

NPPF states that:

"Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal" (MHCLG 2019, Note 190).

The NPPF makes it clear that the significance of a heritage asset derives not only from its physical presence and historic fabric but also from its setting. Although consideration of setting is somewhat subjective and necessarily a matter of informed judgement, guidance is provided to assist decision-making by ensuring it takes place within a clear framework and is as transparent and consistent as possible.

Points to be considered include the following:

- o *Intervisibility* Some archaeological or historic landscape features were intended to be seen from other historic sites, and any modern development should respect this intervisibility
- o Vistas and sight-lines designed landscapes (such as, in the present case, the Battle of Flodden memorial and visitor trail) often involve key vistas, panoramas and sight-lines, or the

highlighting of topography to aid interpretation. The location of turbines should avoid such key views.

The present assessment, carried out in advance of a formal planning application, has been guided by advice from the Tyne and Wear Archaeology Officer, who, working within the context of the new NPPF, has noted that an archaeological assessment is desirable in the present case particularly because of the position of the site in an area of known high archaeological potential.

1.3 Methodology

The assessment will include an Assessment of Heritage Significance and an Assessment of Impact. Specifically it will:

- Define the principal sources of information available for archaeological assessment (Section 3).
- Present a catalogue (Section 4) and chronological synthesis (Section 5) of archaeological data derived from various sources. Accompanying base maps will locate established structures and features within, or in close proximity to, the development site.
- Provide an assessment of archaeological potential with respect to the development site (Section 6).
- Provide conclusions with respect to the known and potential archaeological significance of the development site (Section 7).
- Recommend further work, if required to define more clearly the nature of the archaeological record and facilitate management or mitigation of this asset (Section 8).

2. ASSESSMENT CONTEXT

2.1 Location and Extent of the Assessment Area (Illus. 01-02).

The assessment focuses on an area of land adjacent to the River Tyne at Newburn Riverside Park. To the southeast of the site, beyond a footpath, is the River Tyne. To the north and west is the Newburn Riverside Instrial Estate, and to the east is a small marina. The site itself is on fairly level (though uneven) scrub ground, becoming slightly more marshy towards the riverside. The site boundary is lined with mature and semi-mature trees and shrubs.

2.2 Geology and Topography

The site is located on the flood plain of the River Tyne in the lower part of its valley towards the upper limit of the river's present tidal range. In consequence of the position of the site within a meander on the flood plain of a major river, together with subsequent canalisation work, industrial development and infilling, ground levels within the site are fairly uniform. The position of the site in a meander on a flood plain means that it is clearly visible from surrounding river valley terraces.

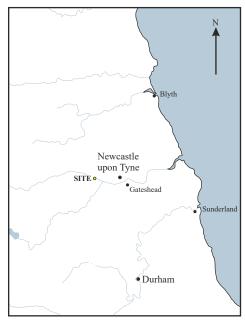
Solid geology within the assessment area consists of Coal Measure Strata, principally including mudstones, siltstones, sandstones, coals and seatearths. On the south-sloping valley side along the northern fringe of the assessment area, this bedrock is close to the surface, separated from the thin top-soil only by a thin layer of boulder clay. The slope of the valley side continues beneath the glacial and alluvial clays, gravels, sands, silts and peat of the flood plain to level out at around 25 metres below present ground level. The flood plain deposits are arranged in bands which vary in thickness and sequence within the site as a result of the erosive and depositional processes responsible for their formation; namely the deposition of materials held in suspension by a meandering, tidal, seasonally-flooding river, together with the cutting and gradual infilling of palaeo-channels and oxbow lakes with wind-blown and organic deposits. Borehole surveys made across the haugh in 1860 prior to its modern development indicate a natural or agricultural layer of topsoil around one foot (c.0.3m) deep, but subsequent developments have led to accumulations of made ground over large parts of the Haugh.

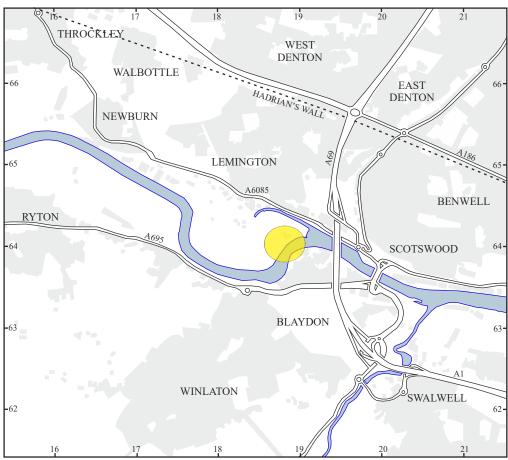
2.3 Previous Archaeological Investigations

There have been several archaeological investigations within the wider assessment area (See Section 4).

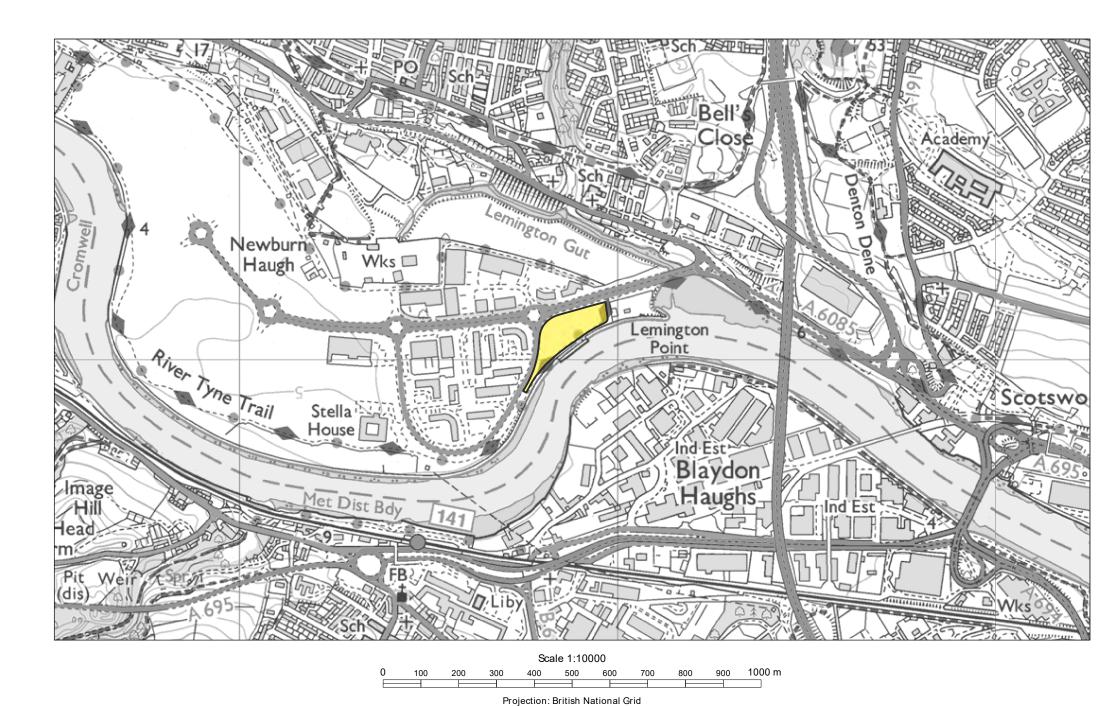
2.4 Nature of Proposed Developments

The current assessment will be used to inform a pre-application proposal associated with the redevelopment of the site.





Illus. 01: Site Location



Illus. 02: Local Site location map (site marked in yellow)

3. SOURCES FOR ASSESSMENT

3.1 Archival Material and Secondary Sources

The report collates evidence from a wide range of published, documentary and cartographic sources consulted in the following archival repositories:

- The Archaeological Practice archive (AP)
- Newcastle City Council's Contaminated Land Specialists (NCCCLS)
- Tyne and Wear Archives (T&W)
- Northumberland Record Office, Woodhorn (NRO)
- Newcastle Library Local Studies Section (SL)
- Gateshead Library (GL)
- Tyne and Wear Historic Environment Record (HER)
- Literary & Philosophical Society Library (L&P)

3.2 Types of Information

Included amongst the various kinds of information used from each of the above sources to assess the significance of the assessment area are the following:

3.2.1 HER and Listed Buildings Records

UNESCO World Heritage Sites

No World Heritage Sites are present within the study area.

Scheduled Ancient Monuments

The scheduling of a site by the Secretary of State denotes it is of at least national significance and provides statutory protection over a defined area. No SAMs are present within the studt area.

Listed Buildings

The listing of structures by the Secretary of State denotes historical or architectural interest but does not necessarily include all buildings of significance or local importance.

Sites Appearing on the Tyne and Wear Historic Environment Records (HER)

The Tyne and Wear HER has been accessed for entries within and in close proximity to the assessment area that may be impacted by proposed developments. Consideration of sites outside the defined area enables better evaluation of its archaeological and historical context, highlighting the nature of potential remains within the assessment area. There are 38 sites of historic interest, and 7 Archaeological Events listed on the Tyne and Wear HER within or in the close vicinity of the proposed development site (see Illus. 11-15).

3.2.2 Primary documentary sources

Documentary references to the site are included in the catalogue and historical synthesis (below), with a number of historic plans of the site accessed at Tyne & Wear Archives (Newcastle) and Northumberland Record Office (Woodhorn), are listed along with information from trade directories, articles and county histories.

3.2.3 Secondary and Published Information

Published works which shed general contextual light upon the assessment area or upon particular aspects of its archaeology or history were consulted and cited where relevant in the catalogue and synthesis included in the assessment report (see *Sections 4 & 5*, below).

3.2.4 Map Evidence (see Illus. 03-10)

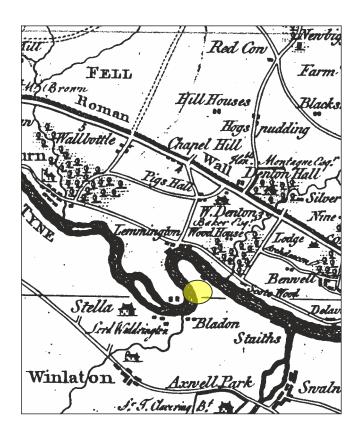
The study of early maps provides invaluable evidence for the historical development of the area. The following maps were used in compiling the present report:

- Armstrong's map of 1769
- Casson's map of 1801
 - 1st Edition Ordnance Survey map 1862, 1:2500
- 2nd Edition Ordnance Survey map 1898, 1:2500
- 3rd Edition Ordnance Survey map 1921, 1:2500
- Ordnance Survey map 1957, 1:2500
- Ordnance Survey map 1967, 1:2500
- Ordnance Survey map 1984, 1:2500

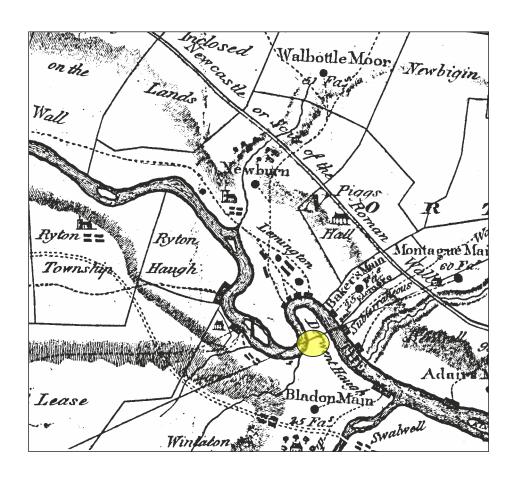
[NB. Many of these maps have been given interpretative masks and labels to indicate the extent of assessment area.]

3.2.5 Site Inspection

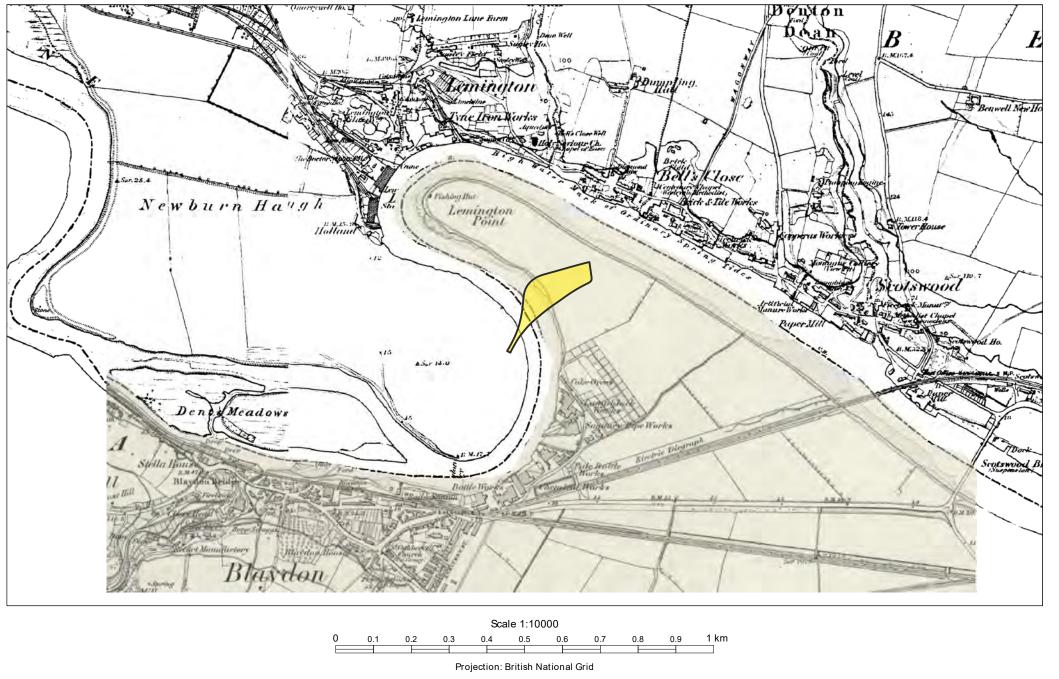
A site visit was made by TF of The Archaeological Practice for the purposes of this report on 28th Feb 2022.



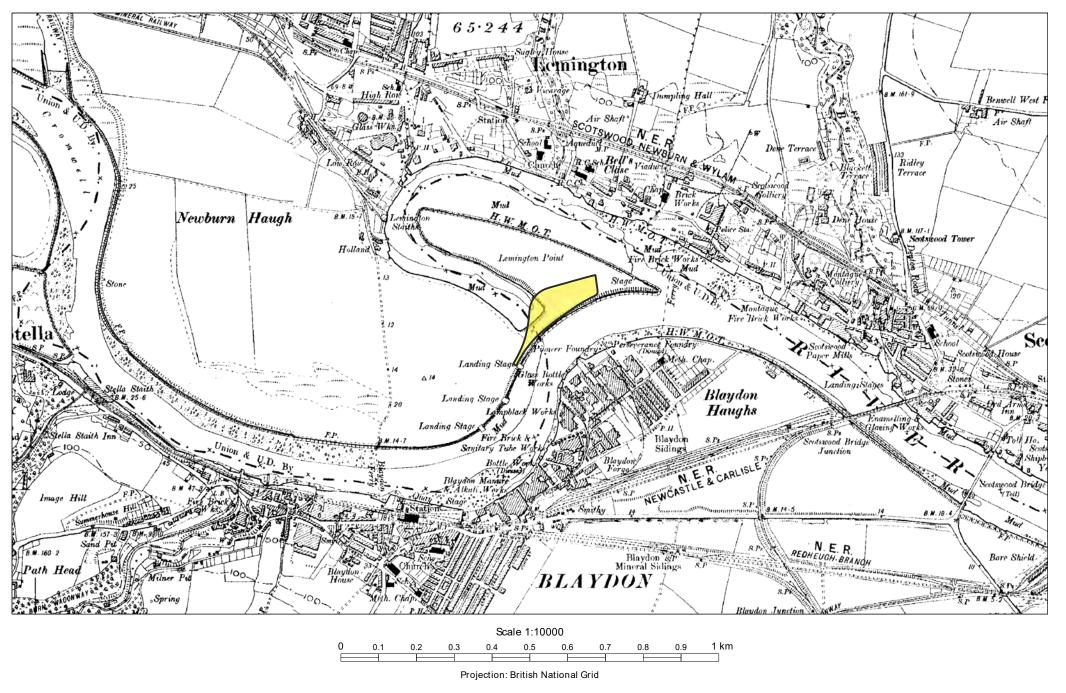
Illus. 03: Armstrong's map of 1796 (site location in yellow)



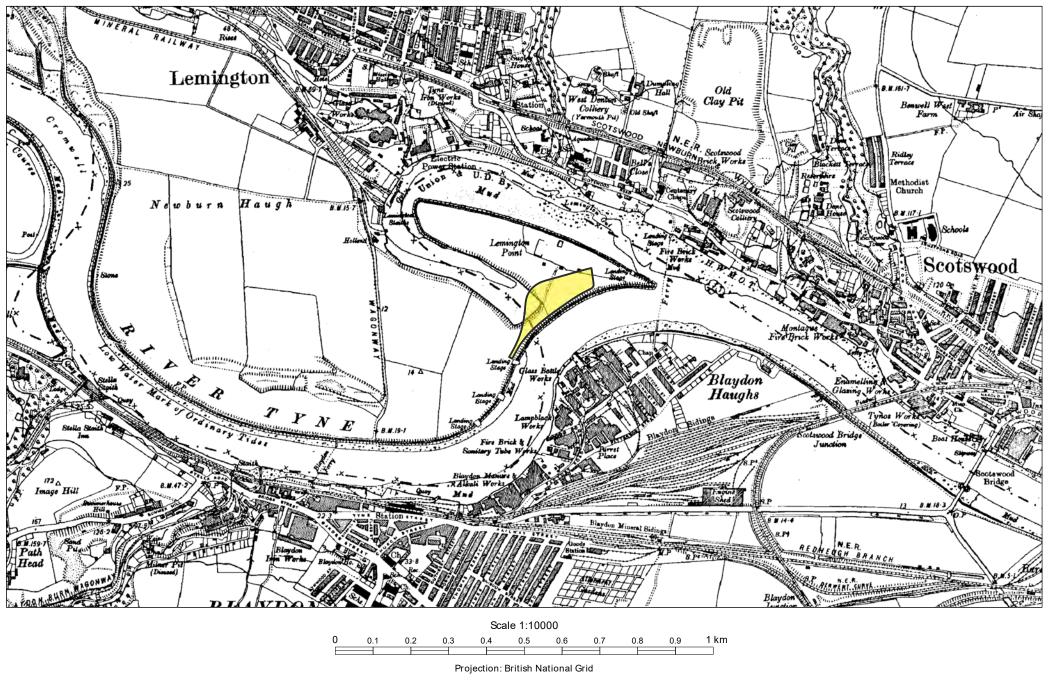
Illus. 04: Casson's map of 1804 (site location in yellow)



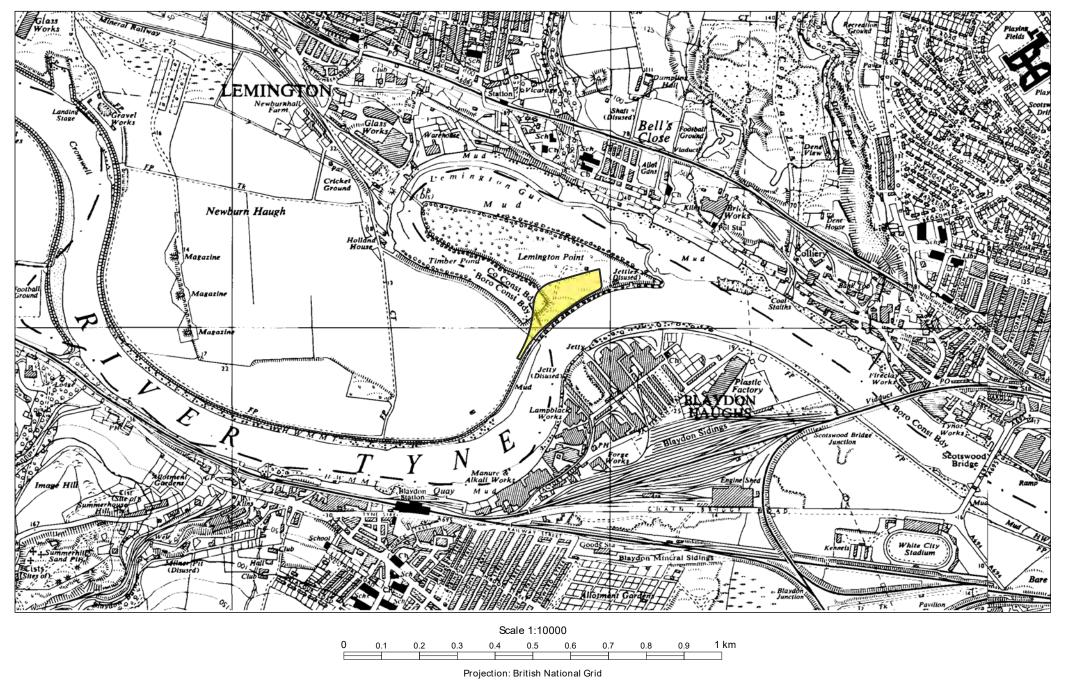
Illus. 05: Composite of the Northumberland and Durham First Edition Ordnance Survey, 1862 (site location outlined in yellow)



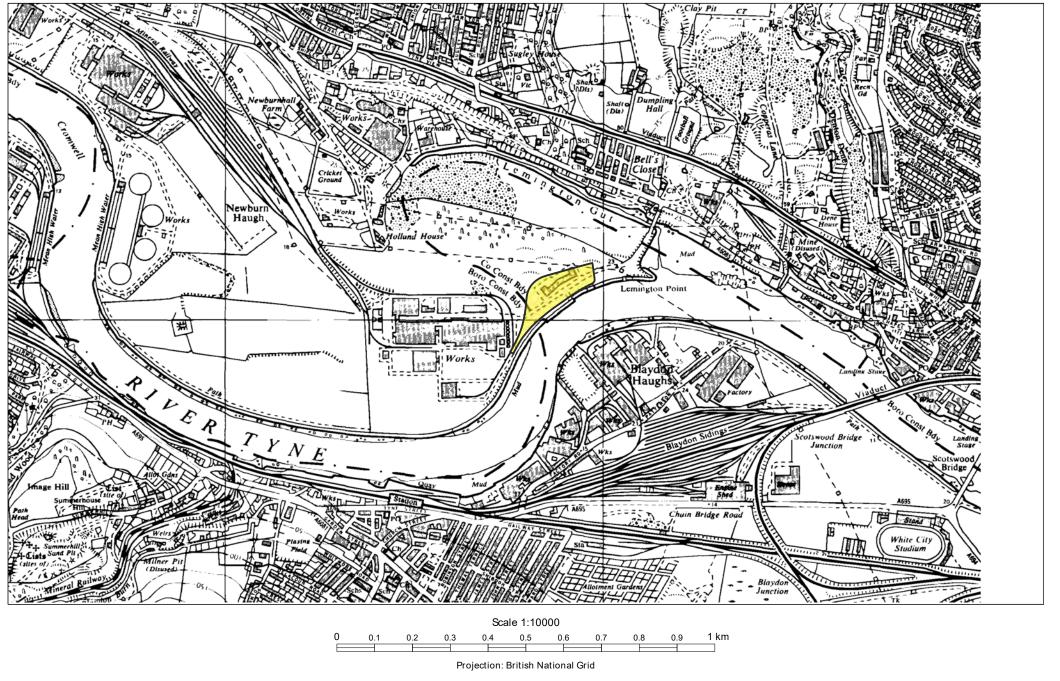
Illus. 06: Second Edition Ordnance Survey, 1898 (site location outlined in yellow)



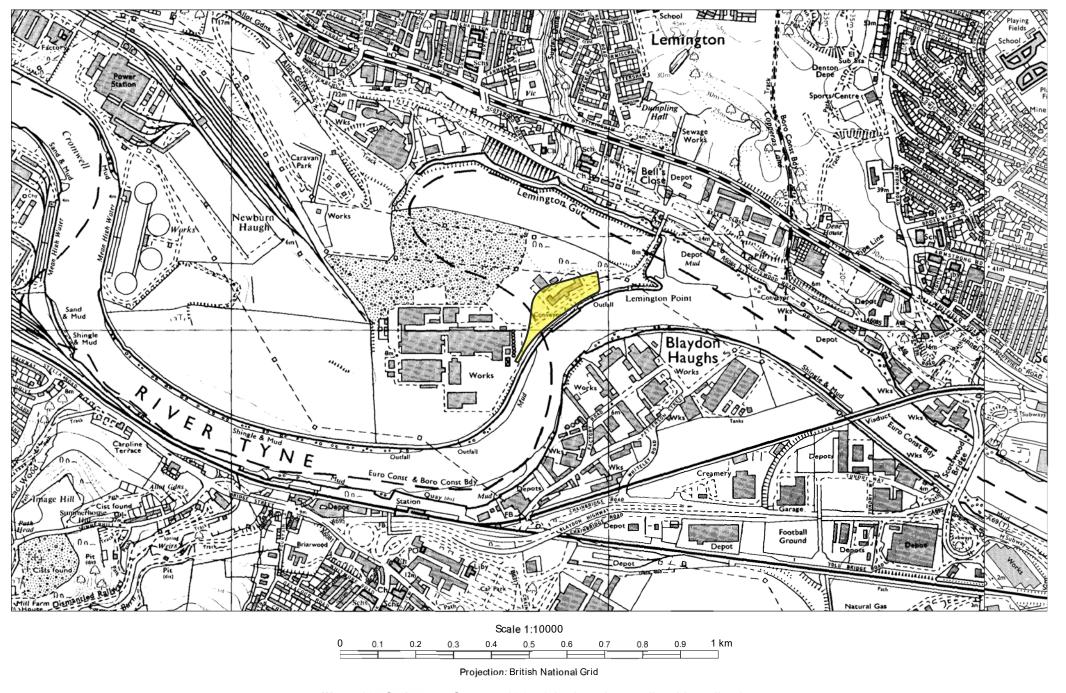
Illus. 07: Third Edition Ordnance Survey, 1921 (site location outlined in yellow)



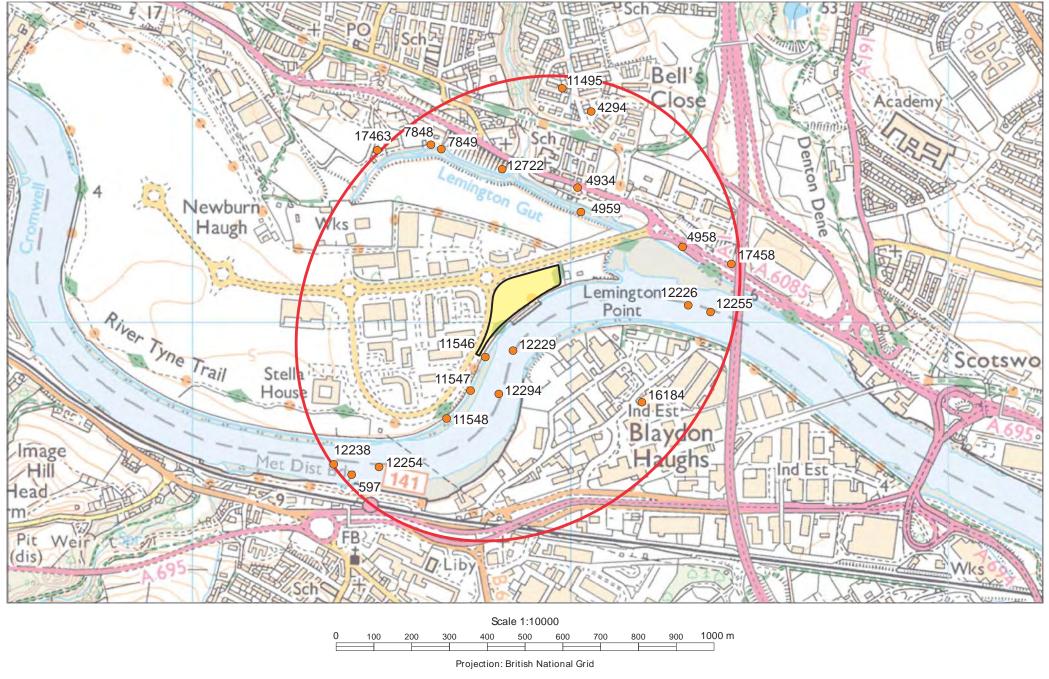
Illus. 08: Ordnance Survey, 1957 (site location outlined in yellow)



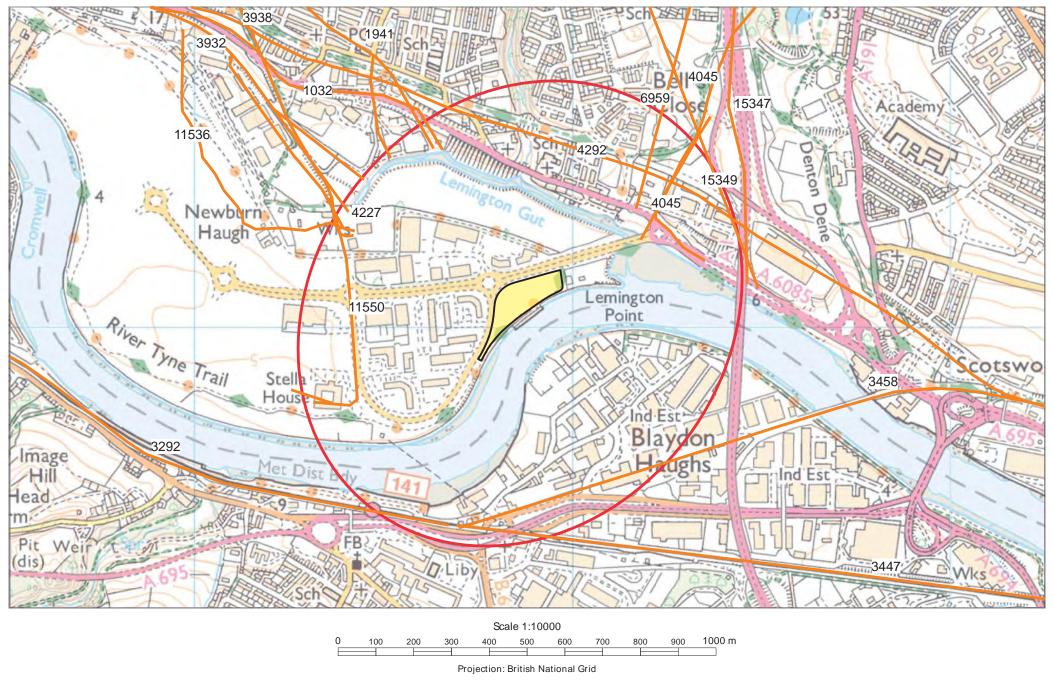
Illus. 09: Ordnance Survey, 1967 (site location outlined in yellow)



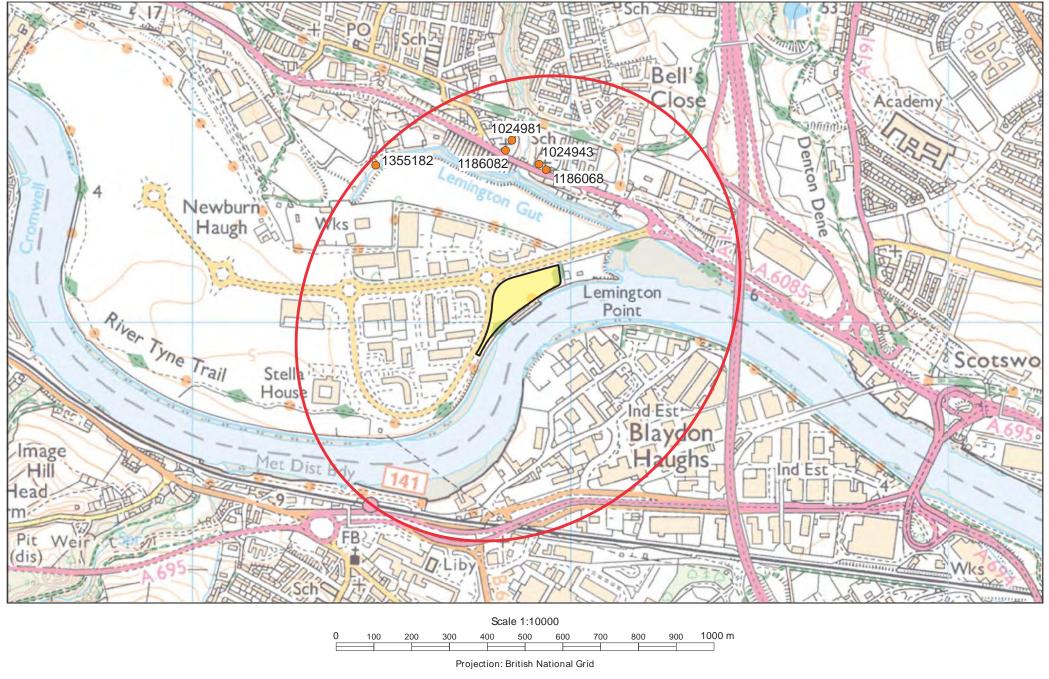
Illus. 10: Ordnance Survey, 1984 (site location outlined in yellow)



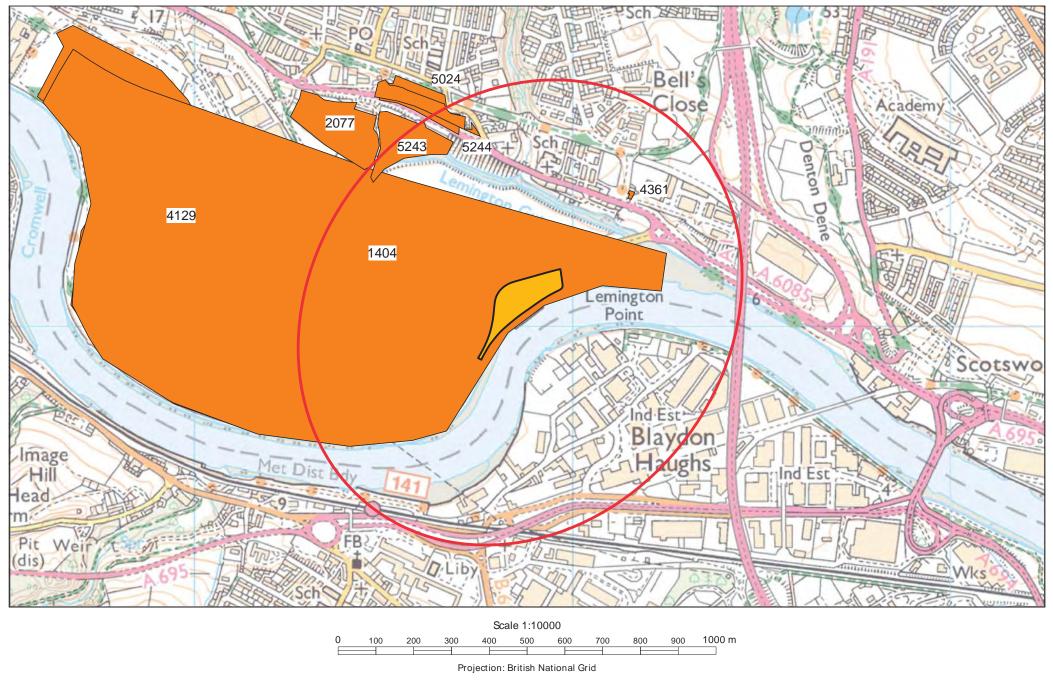
Illus. 12: HER Plan 02; showing sites of known cultural heritage significance within 0.5 km of the study area boundary (red line) - keyed to site Catalogue, Section 4.1.



Illus. 13: HER Plan 03; showing sites of known cultural heritage significance within 0.5 km of the study area boundary (red line) - keyed to site Catalogue, Section 4.1.



Illus. 14: HER Plan 04; showing sites of known cultural heritage significance within 0.5 km of the study area boundary (red line) - keyed to site Catalogue, Section 4.1.



Illus. 15: HER Plan 05; showing sites of known cultural heritage significance within 0.5 km of the study area boundary (red line) - keyed to site Catalogue, Section 4.1.

4. SITE CATALOGUE

The catalogue below provides a listing of the sites within the proposed development area and those in the wider vicinity which may be visually impacted or which may provide contextual information regarding the historical development of the area. The catalogue is derived from consultation of the sources noted in section 3. Cross referencing is provided to the relevant HER, Listed Building and Scheduled Ancient Monument identifiers.

4.1 Sites of interest listed in the HER within the vicinity of the proposed development area

HER 597; Blaydon, River Tyne, bronze spearhead; NGR NZ 184 636

A bronze spearhead was dredged from the Tyne near Blaydon, and bought by Mr. Gibson for the Society of Antiquaries in 1864. It is described by Miket as a side-looped spearhead with leaf-shaped blade. The loops are lozenge-shaped. 194 mm long x 53 mm max width x 23 mm max diameter of socket. It is probably included in the list of "Ancient British Implements of Bronze" etc. referred to in a lecture by Canon Greenwell. On exhibition.

Sources:

1.Proceedings of the Society of Antiquaries of Newcastle, 1885, Purchase, Vol. 2, I (for 1882-4), p. 355 2.Proceedings of the Society of Antiquaries of Newcastle, 1889, Ancient British Implements of Bronze etc., Vol. 2, III (for 1887-8), p. 309

3. Archaeologia Aeliana, 1909, LXI, p. 234, fig. 60

4.R. Miket, 1984, The Prehistory of Tyne and Wear, p. 24, and fig. 6, p. 28, no. 12"

HER 1032; Newburn, Wylam Wagonway; NGR NZ 148 655

A 5 mile long waggonway linking Wylam Colliery with staithes at Lemington, thought to have been built in 1748 and possibly to the design of William Brown of Throckley for John Blackett. Running for a large part parallel to the river bank the waggonway was level and built to a wide 5 ft gauge with originally timber rails (3.5" wide, 4.5" deep) attached to stone sleepers at 18" intervals. The timber rails were replaced with iron plate-way rails in 1808. The Wylam wagonway was the scene of a successful attempt to employ steam as motive-power on railways. In 1811 oxen might have been pulling the wagons, by 1813 locomotive engines were doing similar work over the same ground. Indeed, the waggonway was the scene of some of the early locomotive experiments, notably those of Thomas Hedley in 1813. Between 1827-30 the old plate-way was replaced with cast-iron fishbellied rails that were 4ft between centres. William Hedley built at least three engines for the Wylam tramroad - the "Old Duchess" (now in South Kensington Museum), "Puffing Billy" (now in the Museum of Science and Arts at Edinburgh) and the "Lady Mary" (scrapped) - these engines continued in use until 1862. Following the closure of Wylam Colliery in 1868, the wagonway saw little use, until it was incorporated into the Scotswood, Newburn and Wylam Railway completed in July 1875. At this time colliery waste was dumped directly over the Wylam Wagonway, after the ironwork had been dismantled, to create an embankment up to 1m high. The railway worked until March 1968, and the tracks were lifted in April 1972 when the route became a bridleway.

Sources:

1.P.R.B. Brooks, 1979, Where Railways Were Born, The Story of Wylam and its Railway Pioneers, 3rd Edition;

- 2.I. Ayris & S.M. Linsley, 1994, A Guide to the Industrial Archaeology of Tyne and Wear, p 8; 3.G. Brogan, 2004, Tyne and Wear Museums, Wylam Waggonway, Wylam Archaeological Evaluation and Watching Brief;
- 4.W.W. Tomlinson, 1914, The North Eastern Railway Its Rise and Development, p 15;
- 5.Alan Williams Archaeology, 2012, Waggonways North of River Tyne: Tyne and Wear HER Enhancement Project;
- 6.Northumberland Record Office, Plan of the Lordship of Newburn, 1767, Zan Bell M17/197/A plan 24;
- 7.North East Institute of Mining and Mechanical Engineering: All Watson Papers prefixed NRO/3410/Watson 23/21: Estate plan of enclosed lands at Throckley, property of Greenwich Hospital, showing coal pits. 1781;
- 8.Turnbull, L. 2009 Coals from Newcastle: An Introduction to the Northumberland and Durham Coalfield, p 125

HER 1941; Holywell Reins Wagonway; NGR NZ 2005 6926

A map of around 1770 (Watson 24/29) superimposes the underground workings and surface features of the Earl of Carlisle's Hollywell Reins Colliery in Newbiggin. Approaching from the south-west, the waggonway serving the colliery is shown branching to the dispersed Brunton, Anne, Unity, Liberty and John Pits. A number of other pits and four pumping engines (The west engine, old west engine, the little engine and the great engine) lie in the area. The waggonway took a curving line, on a fairly gentle slope, down to the River Tyne at Lemington. It is shown on a 1767 plan of the Duke of Northumberland's Newburn Estate (NRO: ZanBellM17/197/A plan 24). The colliery, much equipment and four miles of waggonway were advertised and sold in September 1780 (Turnbull 2009, 129).

Sources:

1.I. Ayris & S.M. Linsley, 1994, A Guide to the Industrial Archaeology of Tyne and Wear, p 8; 2.Alan Williams, 2012, Waggonways North of River Tyne: Tyne and Wear HER Enhancement Project; 3.North East Institute of Mining and Mechanical Engineering: NRO/3410/Watson 24/29; 4.NRO: Plan of the Duke of Northumberland's Lordship of Newburn 1767 Zan Bell M17/197/A plan 24; 5.Turnbull, L. 2009 Coals from Newcastle: An Introduction to the Northumberland and Durham Coalfield, p 129

HER 3292; Newcastle and Carlisle Railway; NGR NZ 1867 6348

The Newcastle and Carlisle Railway. As early as 1778 Smeaton had suggested that a canal could be built on the south side of the Tyne from Stella to Wylam. By 1794 it was proposed (by Ralph Dodd C.E.) to link the west and east coasts with such a canal. In 1824 the coast of building this canal was reported to be £888,000, whilst a railway along the same route would cost £252,488. The committee of inquiry, held in the Moot Hall at Newcastle, on 26th March 1825 voted in favour of a railway. The Newcastle and Carlisle Railway received Royal Assent on 22nd May 1829. Work began on the on the west end of the line in March 1830 and was in operation by November 1834. One of the original stipulations of the act was that no locomotive engines should be used on the line and that no steam engine should be erected or be in used within sight of or within the distance of 1000 yards of Stella Hall (SMR 1694). The line was intended to be worked entirely by horses. The line started from Newcastle Quay near the Tyne Bridge, followed the course of the river westwards, on "gears" to Low Elswick, then to Scotswood, where a bridge was erected (HER 1009). It then ran past Blaydon, Ryton, Prudhoe to Hexham and beyond. The Railway was intended to be open to the public on the payment of tolls (for example coal for home consumption 1.5d, coke 2d, lead 2d, corn, grain, flour or hay 2.5d). The line was opened to passenger traffic on 9th March 1835. A toll could be levied on every

passenger and animal using the line. The average speed was about 15 miles per hour and there were two trains in each direction every day. Had a station at Ryton (HER 3316), Blaydon (HER 3437), Scotswood (HER 4072), Elswick (HER 4314) before terminating at Newcastle Central Station (HER 4130).

Sources:

- 1. 1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 1
- 2.T. Yellowley, 1986, Stella and Blaydon Burn
- 3. Newcastle and Carlisle Railway, 150th Anniversary Souvenir Brochure;
- 4.W.W. Tomlinson, 1914, The North Eastern Railway Its Rise and Development, p 36, 100 and 191-200"

HER 3437; Blaydon, Railway Station; NGR NZ 1848 6351

A railway station, on the Newcastle and Carlisle Railway (SMR 3292). Blaydon Railway Station was opened on 9th March 1835, the beginning of the Newcastle and Carlisle Railway Company. The line on this initial opening extended 17 miles to Hexham. Two locomotives drew the first train - "Rapid" by Stephenson and Company and "Comet" by Hawthorns. They took one and a half hours to do the journey. The glass roof of the later station was blown out during an air raid in 1942.

Sources:

- 1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2;
- 2.N.G. Rippeth, 1990, Blaydon in old picture postcards

HER 3447; Newcastle and Carlisle Railway, Redheugh Branch; NGR NZ 2469 6303

The Newcastle and Carlisle Railway, Redheugh Branch ran from the eastern end of the Newcastle and Carlisle Railway at Blaydon (HER 3292) to Redheugh Station (HER 3480). The Newcastle and Carlisle Railway, which opened in 1837, was the first passenger railway to provide, at the outset, passenger facilities at intermediate stations. The Brandling Junction Railway Company, with the co-operation of the Newcastle and Carlisle Railway, then built a line from Redheugh Station to Greenesfield Station (HER 4374), which was completed in 1839, a rope-hauled incline up a 1 in 23 slope with a 60 horsepower stationary engine at Greenesfield, carrying coal and passengers. The engine house, a two-storey building with arch-headed windows and its squat chimney survived until 1870. The bridge which carried the incline across Riversdale Road still survives today. From Greenesfield, locomotives drew the wagons to Oakwellgate Station (HER 4368) along a viaduct over High Street and oakwellgate, necessitating Oakwellgate Station to be constructed on a platform raised 20 feet above street level. Part of the Redheugh Branch route was abandoned following the completion of improved alignments and diversions built in the first decade of the 20th century. The remainder survives as a goods line. The incline, engine house and chimney are shown on Hair's view of Newcastle upon Tyne (1844). Thomas Bell's plan (no date) and the first edition OS plan show the course of the incline. The cutting was some 24m wide.

Sources:

- 1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2
- 2.Tyne and Wear Industrial Monuments Trust, 1978, Dunston and Swalwell Plan Area; 3.Manders, 1973, A History of Gateshead, p 113;
- 4.Scott, 1839, Scott's Railway Companion, describing all the scenery on and contiguous to the Newcastle and Carlisle Railway;

5.Northern Counties Archaeological Services, 2001, Riverview: Greenesfield, Gateshead, Cultural Heritage and Archaeology Statement in WSP Environmental Ltd. Environmental Statement; 6.Thomas Bell n.d. TWAS DT/BEL/2/167"

HER 3448; Blaydon, Bottle Works; NGR NZ 1873 6353

Bottle Works

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2

HER 3449;Blaydon, Chemical Works; NGR NZ 1879 6357

Chemical Works. This was the Blaydon Manure and Alkali Company works. Horse and cow manure was processed to produce potash, soda and phosphorus. This area, where the river turns north for a short distance, was known as 'Blaydon Spike'. The name is said to date back to 1856 when captured Russian guns were brought here after the Crimean War to be spiked (the vent plugged up). Blaydon Chemical Company (and prepared bone manure) had their office at 13 Half Moon Court, Bigg Market. Their agent was Anthony Harrison.

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2;

2.N.G. Rippeth, 1990, Blaydon in old picture postcards;

3. William Whelan, 1856, History, Topography and Directory of the County Palatine of Durham

HER 3450; Blaydon, Reservoir; NGR NZ 1887 6355

A resevoir

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2

HER 3451; Blaydon, Pale Bottle Works; NGR NZ 1885 6363

The Pale Bottle Works. There were two glass bottle manufacturers in Blaydon in 1856. North Durham Bottle Company, J Heron Manson was the managing partner. Blaydon Bottle Works of Anthony Thatcher, Henry Poole was manager.

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2;

2. William Whelan, 1856, History, Topography and Directory of the County Palatine of Durham

HER 3452; Blaydon, Sanitary Pipe Works/Harriman's Pipe Works; NGR NZ 1889 6369

Sanitary Pipe Works shown on the OS 1st edition {1}. This site is now used as a depot. The rectangular down draft kilns still remain in situ {2}. Harriman's Fireclay works grew to become a large and important manufactory of salt-glazed sanitary pipes and white glazed enamel ware on Tyneside, it being one of the first firms to cater for the demands of local government on Tyneside for better sanitation, and continued to supply this need for 120 years.

In 1845, Harriman went into partnership with Mr W Dodds of Lemington to set up a new firebrick works at Blaydon Haugh, with river frontage and its own siding onto the North Eastern Railway. Fireclay was supplied by Stella Coal Company from 1847-1868 and taken to the works by wherries on the river, or wagons on the railway. From 1857-1862 fireclay was also obtained from Whickham

Colliery. In 1858, the works gave preference to manufacture of salt-glazed ware and firebricks were of secondary importance.

In 1881, the old firm of Harriman and Company was wound up and a new company formed. The Blaydon works comprised moulding, engine and boiler houses; six drying flats; joiners and smiths workshops; press room and clay room; sand and salt storage sheds; a five-room dwelling house and a warehouse; offices and stabling; 16 old kilns and two new kilns. The plant and machinery comprised a vertical steam engine, horizontal steam engine, pipe machine, small upright boiler and engine, pug mill and grinding mill with screen, brick making machine, three hand-operated brick presses, wagons and trucks.

In 1883, the company leased the firebrick works next to Eltringham Coal Company and secured a direct source of fireclay. In 1889, two muffle kilns were built and a new sink moulding and drying flat was made at Blaydon, for the increased demand for white glazed sinks. The lease was ended in 1891 and in 1892 the works at Blaydon were extended. Four new downdraught kilns were built and other extensions made in 1894 when the neighbouring old bottleworks site was acquired. A new moulding shop, dipping shed, warehouse, mechanics shop and brick press shed were erected.

In 1899, a circular kiln was demolished and an oblong downdraught kiln built in its place to burn glazed enamel bricks. After a lean period in World War I, the works returned to profit and kilns and buildings were repaired. Two Ruarden pipe machines and a horizontal pug mill with mixer were bought, as well as a new steam engine. In 1932, a new moulding, glazing, and packing shed was built. And in 1934, a new de-airing plant was installed. In 1933 there were ten downdraught kilns making salt-glazed ware (five circular and five rectangular); the circular ones were replaced over the next 20 years by rectangular ones.

In 1953, the adjoining Blacking Factory site was acquired. Three large circular downdraught kilns were built in 1966, 1968 and 1972, their flues connected to a 120ft high chimney built in 1966. The underground flues were periodically cleaned out, their walls being stripped of their deposits of rock salt. The kilns changed over from coal to oil firing in 1962.

1847-1975 (appears to be the on same site as brickworks 1875, Graham's yard) Source: Davison, P J, 1986. Brickworks of the North East, 133, site 26, 139-44

Sources:

- 1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2
- 2.Tyne and Wear Industrial Monuments Trust, Blaydon and Winlaton Plan; papers for William Harriman & Co, brick and sanitary pipe mfrs, Blaydon: records c1890-1978, Tyne and Wear Archives DX952;
- 3. William Whelan, 1856, History, Topography and Directory of the County Palatine of Durham"

HER 3453; Blaydon, Lampblack Works; NGR NZ 1889 6376

Lampblack Works

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2

HER 3454; Blaydon, Coke Ovens; NGR NZ 1890 6383

A battery of coke ovens

Sources:

1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2

HER 3458; Newcastle and Carlisle Railway, Newcastle branch lin; NGR NZ 2451 6380

The branch of the Newcastle and Carlisle Railway, from the original line (SMR 3292) over the Tyne and into Newcastle. The railway crossed the Tyne at Scotswood (HER 1009). This line was laid as far as the Elswick Shot Tower in 1893, to Forth Banks in 1847 and into the Central Station on 1st Jan 1851. In 1862 the line became part of the North Eastern Railway {1}. Surviving features associated with the line were recorded in 2008.

Sources:

- 1.1st edition Ordnance Survey Map, c.1855, 6 inch scale, Durham, 2
- 2.1st edition Ordnance Survey map, 1864, 6 inch scale, Northumberland, 97
- 3. Hoole, K. 1986, A Regional History of the Railways of Gt Britain, The North East, Vol 4, p.197;
- 4.W.W. Tomlinson, 1914, The North Eastern Railway Its Rise and Development, p 321;
- 5.The Archaeological Practice Ltd., 2008, Scotswood Housing Expo, Newcastle upon Tyne, Historic Buildings Recording"

HER 4292; N.E.R. Scotswood, Newburn and Wylam; NGR NZ 2037 6379

North Eastern Railway Newburn and Wylam Branch. The construction of this line was authorised by the Scotswood, Newburn and Wylam Railway and Dock Act of 1871. The line joined the Newcastle and Carlisle Railway at both ends. It was opened between Scotswood and Newburn in 1875 and as a single line to Wylam in 1876, which was subsequently widened. The western part of the line reused the line of the Wylam Wagonway. It was operated from the start by the North Eastern Railway {1 and 2}. The Scotswood, Newburn and Wylam Railway opened in 1876. The idea of building a railway along the northern bank of the river was investigated at the time that routes for the Newcastle-Carlisle railway were being examined. The eventual route chosen lay to the south of the Tyne. In the late 1860s when the Tyne Ironworks, Spencer's steel works, Lemington Glass Works and other industries in Newburn were in full production, and collieries were working at Walbottle, Heddon and Throckley, the prospects of building a railway from Scotswood to North Wylam linking with the existing Newcastle - Carlisle Railway at each end, were again examined. Among the sponsors of the project which was subsequently put forward were members of the Spencer family who owned the large steel works in Newburn, William Stephenson, one of the owners of Throckley Fireclay Brick and Tile Works and one of the collieries at Throckley, and Thomas Bates who owned Heddon Colliery and Brickworks. These industrialists needed an improved system of transport and joined forces to promote the scheme for the development of a public railway designed to serve their interests as well as possible new housing development in the Tyne Valley west of Newcastle extending out to Heddon and North Wylam. The original scheme, authorised by the Scotswood, Newburn and Wylam Railway and Dock Act of 1871 also included the construction of a new dock due east of the old Scotswood Suspension Bridge, but this part of the scheme was abandoned mainly due to problems of dredging. Construction of the line between Scotswood and Newburn was started in 1872 and completed in July 1875 with the extension to Wylam being opened as a single line in 1876. A second track was laid later that year {3}. This route had become largely redundant by the late 1960s and the line into Newcastle on the east was closed in 1982. Since then lines and trackside buildings have all been removed. Surviving features were recorded in 2008 including the bridges of the approach to Scotswood Station and walled-up tunnel portals on the North Wylam Line. {5}

Sources:

- 1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW
- 2. Hoole, K. 1986, A Regional History of the Railways of Gt Britain, The North East, Vol 4, pp 197-9
- 3. Tyne & Wear HER, Newcastle District File, The Scotswood, Newburn and Wylam Railway, pp 40-41

4. Pers. Comm, I. Ayris;

5.The Archaeological Practice Ltd.,2008, Scotswood Housing Expo, Newcastle upon Tyne, Historic Buildings Recording"

HER 4293; Lemington, Railway Station; NGR NZ 1873 6459

A Station on the North Eastern Railway Scotswood, Newburn and Wylam Railway, (HER 4292). The railway line opened in the 1870s to serve the riverside industries. There were never many passengers using this line, particularly after 1913 when a tram line was opened to Throckley. Lemington Station had timber buildings {Rippeth 1993}.

Sources:

1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW

HER 4293; Lemington, West Denton Colliery; NGR NZ 1873 6459

West Denton Colliery, Yarmouth Pit opened in 1792. There were two other associated pits - Kew Pit and North or Gin Pit. It was owned by Edward Montagu MP in the 1700s, and later by West Denton Colliery Company. Nothing is shown here on Ordnance Survey first edition, an air shaft is shown on second edition, but by third edition (1919) West Denton Colliery, Yarmouth Pit is shown. The colliery closed in 1924. An aerial photograph of 1946 shows the shaft and 20m of upcast spoil.

Sources:

1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW; 2.3rd edition Ordnance Survey map, 1919; Durham Mining Museum www.dmm.org.uk

HER 4295; Scotswood, Scotswood Colliery; NGR NZ 1936 6435

Scotswood Colliery. This is not shown on the 1st edition OS mapping, so was opened after 1858.

Sources:

1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW

HER 4296; Lemington, Bell's Close, Brickworks; NGR NZ 1923 6437

A Brickworks, possibly replacing the brickfield shown on the 1st edition OS mapping which occupied part of the site. Located just west of Mr Carr's yard. It made firebricks, flue bricks, quarls, and sold fireclay. The yard had closed by 1873.

Source: Davison, P J, 1986. Brickworks of the North East, 140

*(possibly the same as SMR4296)

Sources:

1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW

HER 4297; Scotswood, Montague Fire Brick Works/Bensons Yard; NGR NZ 1949 6410

Montague Fire Brick Works, also known as Benson's Yard, this site was working from 1865-1925.

Sources:

1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 97, NW 2.P.J. Davidson, 1986, Brickworks of the North East, pp 68-9"

HER 3932; Walbottle Wagonway, Duke Pit Branch; NGR NZ 1687 6617

A plan made for the Duke of Northumberland in 1767 details his coal interests in the Lordship of Newburn (NRO: Zan Bell M17/197/A plan 24) but predates the development of Walbottle Colliery and its characteristic branching waggonways running to Greenwich Moor and Black Callerton. However, exploitation of the area was imminent; to the north of Walbottle is written 'Coal that may be won by a Winning to the North side of the Dyke' and a pumping engine is already present in Black Callerton Grounds (This is Engine Pit No. 2, a little way to the south of Andrew Pit as shown on the first edition Ordnance Survey). It would seem very likely that the waggonway system was in place by the end of the decade. It is shown on maps by Gibson (1781) and Casson (1801). The pattern of 18th century waggonways which formed the system is best seen on the first edition Ordnance Survey.

Duke Pit, on the western edge of the village of Walbottle, was sunk first, connected to coal staiths at Lemington. As further pits were sunk to the north, the waggonway was extended as a man line from Duke Pit to Cutend (HER 4271). From Cutend, the waggonway branched. The north-east line ran towards the settlement of Black Callerton and as far as Holywell Main Pit. A branch from this line (HER 4273) ran north to Broom Hall, the site of Black Callerton Pit, with short lines extending to adjacent pits. A short second line ran from Cut End to Walbottle Moor Pit. A final major branch ran to the north-west towards Crescent Farm and Greenwich Moor Pit a little way beyond (HER 4272). This branch included a short run to Callerton Lane End, the site of Callerton Grange Pit.

Sources:

- 1.1st edition Ordnance Survey map, 1864, 6 inch scale, Northumberland 96;
- 2.1st edition Ordnance Survey map, 1864, 6 inch scale, Northumberland, 97;
- 3.Alan Williams Archaeology, 2012, Waggonways North of River Tyne: Tyne and Wear HER Enhancement Project;
- 4.CR Warn 1973, Waggonways and Early Railways of Northumberland 1605-1840;
- 5. Gibson 1787: Plan of the Collieries of the Rivers Tyne and Wear;
- 6.Casson 1801: Map of the Rivers Tyne and Wear;
- 7.Lordship of Newburn, 1767, NRO Zan Bell M17/197/A/plan 24

HER 4036; Lemington, Lemington Staiths; NGR NZ 1841 6436

Lemington Staiths. Lemington was the highest point on the Tyne suitable for staiths and was therefore an important point in the coal transport network. There were staiths here by 1640 and the main 18th century wagonways may still be traced here. Fragmentary timber structures still visible are probably part of the Wylam staiths which were the last to remain in use.

Sources:

1.1st edition Ordnance Survey Map, 1864, 6 inch scale, Northumberland, 97

2.I.M. Ayris, & S.M. Linsley, 1994, A Guide to the Industrial Archaeology of Tyne and Wear, p.38"

HER 4045; West Denton or Baker's Main Wagonway; NGR NZ 1969 6508

A plan of the late 1750s (Turnbull 2009, 120) shows Denton divided into three parts. West Denton, including Bells Close, is marked as owned by John Baker. A 'Winning Engine' is shown close to the river. Baker's Main Colliery was won soon after the map was prepared. Both Gibson (1788) and Casson (1801) show a pit a little way from the river served by a waggonway. Casson notes it as 25 fathoms deep.

Sources:

1.1st edition Ordnance Survey Map, 1864, 6 inch scale, Northumberland, 97;

- 2.Alan Williams Archaeology, 2012, Waggonways North of the River Tyne: Tyne and Wear Enhancement Project;
- 3.Turnbull, L. 2009 Coals from Newcastle: An Introduction to the Northumberland and Durham Coalfield, p 120;
- 4. Gibson 1787: Plan of the Collieries of the Rivers Tyne and Wear;
- 5. Casson 1801: Map of the Rivers Tyne and Wear

HER 4047; Lemington, Bell's Close, Brick and Tile Works; NGR NZ 1920 6431

A Brick and Tile Works. This site was working from 1865 to 1938. Manufacturer in 1938 was H J Baldwin.

Sources:

- 1.1st edition Ordnance Survey Map, 1864, 6 inch scale, Northumberland, 97
- 2.P.J. Davidson, 1986, Brickworks of the North East, pp 68-9"

HER 4048; Lemington, Bell's Close, Carr's Yard, Firebrick Works; NGR NZ 1927 6423

A Firebrick Works. The Site of Carr's Yard, which was producing fireclay goods from 1834-1894. Owned by William Ridley Carr, then Thomas Carr & Son, then Walter Scott LTD. Possible manufacturers in 1847-1855 was Blacklock & Hall (firebrick makers); 1861 was J Cliff & Sons (firebrick makers); 1883 was W H Allen (firebrick makers);

(Source: Davison, P J, 1986. Brickworks of the North East, 63.)

Sources:

- 1.1st edition Ordnance Survey Map, 1864, 6 inch scale, Northumberland, 97
- 2.P.J. Davidson, 1986, Brickworks of the North East, pp 68-9; Durham Mining Museum www.dmm.org.uk"

HER 4049; Lemington, Bell's Close, Copperas Works; NGR NZ 1944 6427

A Copperas Works. Probably was out of use by 1895, as it is not shown on the 2nd edition OS mapping.

Sources:

1.1st edition Ordnance Survey Map, 1864, 6 inch scale, Northumberland, 97

HER 4227; Throckley Waggonway; NGR NZ 1566 6668

Some of the Throckley pits which had been worked over the 18th century were re-opened in the mid 19th century. Old routes may have been retained within the area of the colliery but a new line was established down to the River Tyne some way to the west of Lemington. This waggonway ran due south from the line of Hadrian's Wall, and then circuitously through a narrow valley between Hallow Hill and Rye Hill taking it close to Newburn Grange, to the south of which it joined Wylam Waggonway (HER 1032). The route is shown on the first edition Ordnance Survey and is named Throckley Waggonway.

Sources:

- 1.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 96, NE
- 2.2nd edition Ordnance Survey map, 1899, 6 inch scale, Northumberland, 88, SE;
- 3. Alan Williams, 2012, Waggonways North of River Tyne: HER Enhancement Project"

HER 4346; Lemington, Tyne Iron Works; NGR NZ 1857 6453

The Tyne Iron Works was founded in 1797. By 1801 it had two blast furnaces with a Boulton and Watt blowing engine. In 1876 the works closed and in 1890 it was dismantled. Remains of calciner and coke ovens, as well as other unidentified features survive on the site. The principal shareholder of the company was a Mr Bulmer who resided at Sugley House on the edge of the Dene. The works were taken over in 1869 by John Spencer and renamed the Tyne Haematite Iron Company. This venture only lasted for 7 years. They closed in 1876, owing to the shortage of iron ore which was imported from Spain, the supply ceasing on the outbreak of the Carlist War. An interesting account of the ironworks was given in 1802 by Eric T. Svedenstierna in his book "The travel diary of an industrial spy". The Tyne Iron Works site originally covered a large area east of the surviving glass cone of Lemington glassworks. Its original extent is shown on a distribution map on p.31 of AP 1999. Many of its original components, including coke ovens, roasting and other kiln, transport and loading facilities are shown on a map of 1844 (AP 1999, p.17). Significant remains survive north-west of the area presently indicated on the HER map – or this could be included as a separate site (centred on NZ 1848 6459) since the surviving remains seem to be part of a viaduct (originally from or over Lemington road?). Other remains visible in 1999 were closer to the riverside, including building remains, possible furnace or kiln remains, terraces, etc. The works had 2 furnaces. An assessment by Scott Wilson in 2010 describes each of the surviving structures- coking ovens, charging ramp and blast furnace, rolling mill/foundry, periphery structures, managers house and office.

Sources:

1.edition Ordnance Survey map, 1864, 6 inch scale, Northumberland, 97

- 2.J. Armstrong, History of Newburn
- 3.E.T. Svedenstierna, 1802, The Travel Diary of an Industrial Spy
- 4.I. Ayris & S.M. Linsley, 1994, A Guide to the Industrial Archaeology of Tyne and Wear, p 50;
- 5. The Industrial Resources of the District of the Three Northern Rivers, The Tyne, Wear and Tees including the reports on the local manufacturers read before The British Association in 1863 (edited by Sir W.G. Armstrong, I. Lowthian Bell, John Taylor and Dr Richardson, 1864).;

6.Scott Wilson, 2010, Scotswood Road, Lemington - Archaeological Assessment; Archaeological Services Durham University, 2015,

7.Lemington Power Station, Newcastle upon Tyne - Historic Buildings Recording"

HER 4934; Lemington, Oliver's Shipyard; NGR NZ 189 643

There was a fair sized jetty on the riverside, and a boatyard known as Olivers Shipyard. The paddle boat "Jabez Bunting" named after the Methodist minister, was built here for Joblings of Bells Close. There was a rather curious clause in the building contract which stated that the vessel must not be worked on Sundays. This shipyard was in addition to that on the site of the present Stella North Power Station where 2 vessels of about 90 tons were built in the 1860s - the "Lemington Antelope" and the "Harry Kells". {1}

Sources:

1.J. Armstrong, History of Newburn

HER 4939; Lemington, WW1 Munitions Factory; NGR NZ 18781 64196

The site of the present Anglo Great Lakes Factory, at Lemington Point, formed by the horseshoe bend in the river has a rather interesting industrial history. During World War 1 Lemington Point was known as "Canary Island" due to the existence of a munitions factory using a substance (cordite) with a bright yellow colouring. For many years after the war local people in the area still had traces of this

colouring on their hair and skin. {1} The Point was an ideal location for a munitions factory, given its isolated site - it was physically separated from the rest of Lemington, and accessed only by a wooden bridge. The Anglo Great Lakes Graphite Factory closed in 1992. Workers there also tried not to get the dust onto their skin as graphite forms an almost permanent shiny grey layer.

Sources:

1.J. Armstrong, History of Newburn;

2.N.G. Rippeth, 1993, Newburn in old picture postcards

HER 4958; Lemington, Chimney; NGR NZ 1930 6420

Could have been chimney for a brickworks (see SMR 4048).

Sources:

1. Tyne and Wear Industrial Monuments Trust, Newburn Plan Area

HER 4959; Lemington, boat hulks; NGR NZ 1902 6429

Boat hulks uncovered at low tide in the bottom of Lemington Gut.

Sources:

1. Tyne and Wear Industrial Monuments Trust, Newburn Plan Area

HER 4960; Lemington, Power Station; NGR NZ 1852 6447

A typical example of an early 20th century power station, built for a private local lighting company, operating 1903-1919. It was adapted as a substation post WW2 for supply to the tram system. The imposing double height brick building forms part of an important industrial group and retains a number of original features and its perimeter boundary walls with gateways. Buildings include the control room, power hall and reservoir. Built by DISCO in 1903 expanded in 1904. Possibly the first brick built power station in the country. The west part of the building contained three direct current Parsons turbo generators with a total capacity of 970kw. The generators had been used at Forth Banks Power Station and at Newburn Steelworks before being installed at Lemington. Steam was provided by three Lancashire boilers in the larger east part of the building. Cooling water for the condensers was drawn from Lemington Gut. Ceased generating in 1919 when demand fell as Newburn steelworks improved its own generators. Used as sub-station until 1946, supplying local tramway. Currently used by Reeds Cranes and Plant Ltd. Station building survives as intact shell adjacent to river. Brick shed with tall, round headed openings often picked out in darker or lighter bricks, circular openings high on the gables, full length ridge ventilator to west bay. Interior features included elevated control rooms, toilets and walkways, overhead crane to west bay, below ground reservoir (outlet on south side). Some electrical fittings interior and exterior. Perimeter wall survives in southern half of site, incorporating opposed entrance gateways. Recorded ahead of demolition in 2015 - described as in poor condition suffering from vandalism.

Sources:

- 1. Tyne and Wear Industrial Monuments Trust, Newburn Plan Area
- 2. English Heritage, 1997, Monuments Protection Program, Step 4, Site Assessment
- 3.I. Ayris & S.M. Linsley, 1994, A Guide to the Industrial Archaeology of Tyne and Wear, p 71;
- 4.Scott Wilson, 2010, Scotswood Road, Lemington Archaeological Assessment; Archaeological Services Durham University, 2015,
- 5.Lemington Power Station, Newcastle upon Tyne Historic Buildings Recording"

HER 4962; Lemington, Staith House; NGR NZ 1945 6411

Staith House

Sources:

1. Tyne and Wear Industrial Monuments Trust, Newburn Plan Area

HER 6959; Scotswood, Kitty's Drift; NGR NZ 2185 6743

Kitty's Drift was an underground railway, built in 1770 to transport coal underground from East Kenton Colliery to the staithes at Scotswood. It was a single track wooden waggonway with passing places for horse drawn waggons. The tunnel was said to be 3 miles long, 6 feet high and 6 feet wide. The route was abandoned in 1805 and replaced by a surface waggonway, but the drift continued in use as a main drainage level for many years. The entrance was close to Montague Colliery, View Pit (HER 4059). The Mickley Coal Company therefore utilised part of Kitty's Drift in the 1930s to take coal from Caroline Pit (HER 4289) to the screens at the closed View Pit. Originally Kitty's Drift used a massive steam winder to haul the tubs the 2.5 miles to the View Pit screens, but in 1933 this was replaced by a 250 horsepower electric winder. The Mickley Coal Company intercepted Kitty's Drift with Bates Drift, at a gradient of 1 in 3 from the Beaumont seam. And the Fan Pit Level Drift, which was 980 yards long, carried tubs from the shaft up to Kitty's Drift and on to View Pit. This created a complex and extensive underground endless rope haulage system in places up to 6 miles in length. The Montague Colliery (and therefore Kitty's Drift) closed again in 1959. The exact route of the underground railway is not known - it is shown as a "Subterranean Tunnel on Lambert's map of 1807). Said to have been the westernmost end of the Coxlodge Wagonway (HER 1134). Possibly the earliest underground railway in the world.

Sources:

1. James T. Tuck, 1997, The Colleries of Northumberland, Vol 1;

2.Lambert, 1807, Plan of the Rivers Tyne and Wear... also a plan of Newcastle upon Tyne; 3.M Lambert, 1807, Plan of the rivers Tyne and Wear with the collieries, wagonways and staiths, thereon, and the principal roads and villages, Newcastle Libraries C2 672664 00 53; 4.R. Welford, 1879, A History of the Parish of Gosforth, p. 84-87;

5.Alan Williams, 2012, Waggonways North of the River Tyne: Tyne and Wear HER Enhancement Project;

6.Turnbull, L. 2009 Coals from Newcastle: An Introduction to the Northumberland and Durham Coalfield, p 132

HER 7414;Blaydon, Chainbridge Road, signal box; NGR NZ 1870 6348

Signal box on Newcastle and Carlisle Railway and its Redheugh Branch.

DESCRIPTION Built by the North Eastern Railway Company at a branch in the Newcastle and Carlisle railway.

Sources:

1.Gateshead Council Local List Fact Sheet X20/LL/032

HER 7848; Lemington Gut, brick and stone buildings; NGR NZ 1862 6448

In 1999 photographs were taken of a brick and stone building with pan-tiled roof and recessed northwest corner wall, situated next to the quay walls of Lemington Gut, south of the ironworks site. Its date is uncertain, but it seems to have been part of the ironworks site and may pre-date it. It is

shown on a map of 1844 (AP 1999, p.17), on the 1st edition Ordnance Survey map and in a truncated form on the 2nd edition of 1899. This enigmatic structure, latterly a stable, was pulled down sometime between 1999 and 2003, but its foundations are likely to survive.

Sources:

- 1.The Archaeological Practice, 1999, Newburn Haugh: Archaeological Assessment, pp.28, 36 & 41. Unpublished report for WSP Environmental;
- 2. Scott Wilson, 2010, Scotswood Road, Lemington Archaeological Assessment

HER 7849; Lemington Gut, quay walls; NGR NZ 1866 6447

Quay walls survive well between the site of the staithes, adjacent to the ironworks managers house and a point immediately south-east of the ironworks (approx. NZ 1847 eastwards to NZ 1866 6447). These walls probably pre-date the construction of a channel across Blaydon Haugh by the Tyne Improvement Commission in the 1850s which created the Gut and led to a waning of industrial development at Lemington (the ironworks already being closed/in decline by this time). The Gut survives as a silted cul-de-sac of the Tyne, preserving the quayside walls along with fragmentary remains of staithes and, probably, sunken boats in its silt.

Sources:

- 1.The Archaeological Practice, 1999, Newburn Haugh: Archaeological Assessment, pp.28, 36 & 41. Unpublished report for WSP Environmental;
- 2. Scott Wilson, 2010, Scotswood Road, Lemington Archaeological Assessment

HER 8889; Lemington, Scotswood Road, Church of St. George, presbytery; NGR NZ 1892 6443 R.C. presbytery. Circa 1869 by A.M. Dunn. Flemish bond white brick with polychrome brick and ashlar dressings; Welsh slate roof. 2 storeys, 4 bays. Wood porch in second bay has ornamental panels and door in right return; dentilled cornice with pediment over central projection. Sash windows with late C19 glazing bars, 3 in canted first bay, have shouldered stone lintels. Lombard frieze, raised over canted

bay with upper hip. Hipped roof with irregularly-bonded polychrome brick chimneys.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/44

HER 8915; Lemington, Scotswood Rd, Church of Holy Saviour, parish hall; NGR NZ 1884 6449

Parish school, now hall. 1838; possibly by Benjamin Green. Coursed squared sand-stone with ashlar dressings, plinth and quoins; Welsh slate roof with overlapping stone gable copings on moulded kneelers. One high storey, 3 bays by one. Renewed central door recessed in elliptical-headed double-chamfered surround under floating cornice in low-pitched gabled porch with sundial finial. Floating cornices also to flanking 3-light chamfered stone-mullioned windows. Slit windows in return gable peaks. Ashlar left end chimney, low and coped. Rear brick extension not of interest.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/42

HER 9037; Lemington, Scotswood Road, Church of Holy Saviour, NGR NZ 1883 6447

Parish church. 1836-37; by Benjamin Green. Coursed squared sandstone with ashlar plinth, quoins and dressings; Welsh slate roof with stone gable copings. Aligned north-south; nave with ritual north porch and south vestry and lower, set-back sanctuary. Early English style. High pointed arch to boarded door in steeply- gabled porch; 3-light east window, lancets in sanctuary and east nave, 2-light windows in nave; wide chamfered buttress, dividing west lancets, beneath bell- cote. Low-pitched roof. Interior: plaster, sloping sills to windows; queen-post roof with pendants. Blind high pointed west arch; high pointed moulded arches to doors; moulded arch to sanctuary, one step above chancel, which is paved with Caithness flags as Second World War memorial. Historical note: said to be aligned north-south to avoid disused pit shaft on east.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/44

HER 9038; Lemington, Scotswood Road, Church of St. George. NGR NZ 1893 6441

R.C. parish church. 1868-69 by A.M. Dunn; at the expense of Richard Lamb of West Denton. Flemish bond white brick with polychrome dressings; rear (north) red brick; Welsh slate roof. Western 3-sided apse to chancel; south tower; 5-bay nave with south porch. Shouldered lintel to blocked ritual west door in porch: Shouldered lintel to inserted west door with broach-stopped rebate to surround. Nook shafts to paired west lancets; cinquefoil above has drip mould with ball-flower stops. Carved gables to 2 west buttresses. 2-centred-arched windows in buttressed nave with sill string and continuous impost band: Lombard frieze above and around apse; 2-stage tower, blind below, has upper wide 2-centred-arched belfry openings under Lombard frieze with corner gargoyles, and steeply-pitched hipped roof with iron ridge finial. The interior (not listed) is painted brick with a panelled dado. The chancel and sanctuary are narrower than the nave and are separated from it by a brick chancel arch. Corbelled wall posts support roof trusses, the nave ceiled at first purlin with diagonally-boarded panels and central ventilation holes, the sanctuary with full-height rafters and polygonal apse with stencil decoration on ribs. The windows have pointed arched tops, except for those in the sanctuary, which have high-quality stained glass in geometrical patterns, and the ritual west windows, which have heraldic motifs. There is a full-width glazed screen to ritual west entrance.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/43;

1.http://taking-stock.org.uk/Home/Dioceses/Diocese-of-Hexham-Newcastle/Bells-Close-Newcastle-upon-Tyne-St-George [accessed 7th March 2016]

HER 9132; Lemington, Tyne Iron Works, manager's house and offices, NGR NZ 1848 6443 House and office. Circa 1830 for Spencers' Iron Works.

Sandstone and rubble with ashlar dressings, quoins and plinth; Welsh slate roof with brick chimneys. 1-storey, 3-bay house; low 2-storey and 2-bay adjoining office set back slightly. House has central boarded door and large overlight under flat stone lintel; office door at left in later wood and glass porch. Wedge stone lintels and projecting stone sills to plain sash at left and renewed window at right end; flat stone lintels to inserted storage door at right of house and to upper office window. Low-pitched hipped roof with wide eaves has chimneys at left and at rear. Left return facing river

has segmental arch and projecting stone sill to tripartite sash window with glazing bars; similar window but without glazing bars in rear.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/25

HER 9779; Blaydon Road Bridge, NGR NZ 1943 6400

1987-90 by Bullen & Partners. Built by Edmund Nuttall Ltd for the Newcastle Western Bypass. A twin, five-span, prestressed, post-tensioned, concrete box structure, 330m long. Constructed using the balanced cantilever method. Paired elliptical-section reinforced concrete piers. 17-span approach viaduct on south side.

Sources:

1.N. Pevsner and I. Richmond (second edition revised by J. Grundy, G. McCombie, P. Ryder, H. Welfare), 1992, The Buildings of England - Northumberland, page 460

HER 11219; Lemington, Sugley Dene, NGR NZ 1885 6489

Only 1.2% of Great Britain is ancient semi-natural broadleaved woodland. An Inventory of Ancient Woodland (sites over 2 hectares in size which have been in existence and have had a continuous history of tree cover since at least 1600 AD) was begun in 1981, compiled by English Nature. The aim is to ensure the continuance of the woods, the preservation of their wildlife and landscape value and appropriate management. Ancient woods are a living record of the biological effects of practices such as coppicing and wood pasture management. The natural vegetation of ancient woods, the undisturbed soil and drainage patterns and their contribution to the landscape comprise an irreplaceable conservation asset which once destroyed can never be recreated {Cooke and The Nature Conservancy Council, 1987}. The wood is in the valley of the Sugley Burn.

Sources:

1.Robert Cooke, 1987, Tyne and Wear Inventory of Ancient Woodland (Provisional), The Nature Conservancy Council; Kirby, K.J. et al, (1984), Inventories of ancient semi-natural woodland, 2. www.ndad.nationalarchives.gov.uk/CRDA/43/DD/2/43/image/p2@41.png

HER 11234; Lemington Gut, NGR NZ 1878 6439

Before river improvement work by the Tyne Improvement Commission, the River Tyne at Lemington bent like a horseshoe around Lemington Point. The river was widened and deepened, the banks strengthened with stone and earth, and its route changed to remove the horseshoe bend which would have been difficult for large ships to navigate. Lemington Point thus became part of Newburn Haugh, no longer cut off from Lemington proper (it had previously only been accessible from Lemington by a wooden footbridge). What once was the bend in the River Tyne around the Point, became Lemington Gut, a short narrow water channel which ended at the old Lemington Staiths.

HER 8915; Lemington, Scotswood Rd, Church of Holy Saviour, parish hall, NGR NZ 1884 6449

Parish school, now hall. 1838; possibly by Benjamin Green. Coursed squared sand- stone with ashlar dressings, plinth and quoins; Welsh slate roof with overlapping stone gable copings on moulded kneelers. One high storey, 3 bays by one. Renewed central door recessed in elliptical-headed double-chamfered surround under float- ing cornice in low-pitched gabled porch with sundial finial. Floating

cornices also to flanking 3-light chamfered stone-mullioned windows. Slit windows in return gable peaks. Ashlar left end chimney, low and coped. Rear brick extension not of interest.

Sources:

1.Department of National Heritage, List of Buildings of Special Architectural and Historic Interest, 10/42

HER 11949; Denton Burn, ridge and furrow, NGR NZ 190 645

Ridge and furrow of probable Post Medieval date, two small areas - one beside Dumpling Hall and the other 500m further east of the western side of Denton Dene. Site now levelled.

Sources:

1.English Heritage, 2008, Hadrian's Wall National Mapping Programme (1436054); Aerial Photograph RAF 3G/TUD/UK/147 5233 15-Apr-1946

HER 11495; Lemington, mine shaft, NGR NZ 1897 6463

Mine shaft visible on aerial photograph of 1946. Lies 100m north--west of another shaft (HER 4294).

Sources:

1.English Heritage, 2008, Hadrian's Wall National Mapping Programme (1435879); Aerial Photograph RAF 3G/TUD/UK/147 5233 15-Apr-1946

HER 11534; Lemington village (Lamenden or Lamenton), NGR NZ 1836 6443

The tiny village of 'Lamendon als Lamenton' had been established at the staiths (HER 4036) some time before 1620. Lamendon was in Newburn Hall Township, which was the demesne land, mostly a mixture of large pasture and meadow fields, in the manor of Newburn. The eighteenth century saw the industrial growth of Lemington village with the coming of the glassworks (HER 4035) and iron works (HER 4346). MacKenzie described the village before 1787 as 'inconsiderable', merely a few scattered houses next to the staiths. Once the glassworks opened it was like 'Sheffield in miniature... enveloped in smoke'. Lemington Hall was built in 1786. A cluster of cottages were built for the industrial workers. In the mid nineteenth century there was further expansion and by 1855 Lemington was a thriving industrial village. By 1858 (Ordnance Survey first edition) Lemington had merged with Bell's Close, another riverside industrial settlement at the mouth of the Sugley Burn. The River Tyne Commissioners improvement works in the late nineteenth century had a huge impact on Lemington, damming the loop in the river thereby isolating the staiths at the end of 'Lemington Gut' (HER 11234). From then on there were no major new industrial enterprises at Lemington. By 1898 the settlement had expanded north of the glassworks with further rows of worker's cottages.

Sources:

1.A plan of the manor of Newburn, 1620, Alnwick Castle Archives Class O, Div. xvii, No. 1; 2.Plan of the town of Lemington by Thomas Wilkin, 1802, Alnwick Castle Archives Class O, Div. xvii, No. 10; 3.E. Mackenzie, 1825, An historical, topographical and descriptive view of the County of Northumberland..., Vol 2, p 485;

4.Kelly, 1886, Directory of Newcastle upon Tyne, p 415

HER 11536; Lemington, Lemington Staiths, water course, NGR NZ 1795 6481

A number of 'coale pitts' (HER 11535) were being worked in 1620. Two (in vicinity of NZ 1795 6481) are linked to Lemington Staiths (HER 4036) by 'the water course from the coale pits'.

Sources:

1.A plan of the manor of Newburn, 1620, Alnwick Castle Archives Class O, Div. xvii, No. 1

HER 11546; Lemington, Newburn Haugh, landing stage, NGR NZ 1877 6391 Shown on Ordnance Survey third edition.

Sources:

1.Ordnance Survey third edition, 1921

HER 11546; Lemington, Newburn Haugh, landing stage, NGR NZ 1877 6391 Shown on Ordnance Survey third edition.

Sources:

1.Ordnance Survey third edition, 1921

HER 11547; Lemington, Newburn Haugh, landing stage, NGR NZ 1877 6382 Shown on Ordnance Survey third edition.

Sources:

1.Ordnance Survey third edition, 1921

HER 11547; Lemington, Newburn Haugh, landing stage, NGR NZ 1873 6382 Shown on Ordnance Survey third edition.

Sources:

1.Ordnance Survey third edition, 1921

HER 11548; Lemington, Newburn Haugh, landing stage, NGR NZ 1857 6374 Shown on Ordnance Survey third edition.

Sources:

1.Ordnance Survey third edition, 1921

HER 11550; Lemington, Newburn Haugh, waggonway, NGR NZ 1837 6425

Shown on Ordnance Survey third edition. Ran from Lemington Staiths (HER 4036) to a railway running around the perimeter of Newburn Haugh, linking several landing stages.

Sources:

1.Ordnance Survey third edition, 1921

HER 11551; Lemington, Newburn Haugh, sand quarry, NGR NZ 1823 6385

Presumed sand quarry which would have formally been under the original course of the River Tyne before river improvements in the late C19. Shown on Ordnance Survey third edition linked to Lemington Staiths (HER 4036) by a waggonway (HER 11550).

Sources:

1. Ordnance Survey third edition, 1921

HER 11552; Lemington, Newburn Haugh, Dent's Meadow Island, NGR NZ 1809 6376

The River Tyne Commissioners improvement works in the late nineteenth century dredged away this island.

Sources:

Ordnance Survey first edition 1858

HER 11553; Lemington, Holland, NGR NZ 1839 6423

Building shown on Ordnance Survey first edition.

Sources:

1. Ordnance Survey first edition 1858

HER 12226; Whickham, Alcherles yar Fishery, NGR NZ 193 640

Alcherles yar in 1128, Alcherles yare, Ealdceorl's yair, Feilitzen 240. One of the bishop of Durham's weirs in Whickham township. The main catch would have been salmon, but in fact a wider range of fish would have been taken (e.g. Eels, pike, minnow, burbot, trout and lamprey' {G.N. Garmondsway (ed), 1939, 'Aelfric's Colloquy', pp 101-2}.

Sources:

1. Victor Watts, 1986, Some Northumbrian Fishery Names II in Durham Archaeological Journal, 2, 1986, pp 55-61

HER 12229; Blaydon, Bladene yar Fishery, NGR NZ 190 640

Bladene yar in 1128, Blaydon yair. One of the bishop of Durham's weirs. The main catch would have been salmon, but in fact a wider range of fish would have been taken (e.g. Eels, pike, minnow, burbot, trout and lamprey' {G.N. Garmondsway (ed), 1939, 'Aelfric's Colloquy', pp 101-2}.

Sources:

1. Victor Watts, 1986, Some Northumbrian Fishery Names II in Durham Archaeological Journal, 2, 1986, pp 55-61

HER 12238; Whickham, Deap' var Fishery, NGR NZ 183 636

Deap' yar' in 1128, Deape Yare or ayre. Owned by the bishop of Durham. The main catch would have been salmon, but in fact a wider range of fish would have been taken (e.g. Eels, pike, minnow, burbot, trout and lamprey' {G.N. Garmondsway (ed), 1939, 'Aelfric's Colloquy', pp 101-2}.

Sources:

1. Victor Watts, 1986, Some Northumbrian Fishery Names II in Durham Archaeological Journal, 2, 1986, pp 55-61

HER 12254; Whickham, Gump Fishery, NGR NZ 184 636

Gump in 1128, Grip. Grip may allude to the fish-trap's function of gripping its prey. 'Grype' is old English for 'a ditch, trench or drain'. Owned by the bishop of Durham. The main catch would have been salmon, but in fact a wider range of fish would have been taken (e.g. Eels, pike, minnow, burbot, trout and lamprey' {G.N. Garmondsway (ed), 1939, 'Aelfric's Colloquy', pp 101-2}.

Sources:

1. Victor Watts, 1986, Some Northumbrian Fishery Names II in Durham Archaeological Journal, 2, 1986, pp 55-61

HER 12255; Whickham, Haliwerestem Fishery, NGR NZ 193 640

Haliwerestem in 1128, Heli werestem. Stem may be a mistake for 'stream'. 'Halig-wer' is old English for saint. It would then be Halig-weres stream - St. Cuthbert's fishery. 'Stefn or stem' is old English for 'dam' and 'stemma' means to stem, stop or dam up, especially a stream. Owned by the bishop of Durham. The main catch would have been salmon, but in fact a wider range of fish would have been taken (e.g. Eels, pike, minnow, burbot, trout and lamprey' {G.N. Garmondsway (ed), 1939, 'Aelfric's Colloquy', pp 101-2}.

Sources:

1. Victor Watts, 1986, Some Northumbrian Fishery Names II in Durham Archaeological Journal, 2, 1986, pp 55-61

HER 12294; Newburn, Croc Fishery, NGR NZ 188 638

Croc c.1230, (le) Croke c.1240 and 1368 and frequently until 1512, Cruke in 1458, 1461 and frequently until 1529, Crowke in 1511, Crook in 1851. 'Croc' is Old English for land in a bend in a river. This was part of the Newburn fishery given by Roger Bertram to William Bruton and eventually to Finchale Abbey in whose account rolls it features until 1529. In 1851 the fishery is described as commencing at Lemington Haugh shore opposite the north end of Mitchell's Lamp Black Works and extending around 240 yards towards Lemington. The rent was £16. A 'Crok', Crock or Cruck fishery was granted to Tynemouth Priory by earl Henry around 1147.

Sources:

1.V.E. Watts, 1988, Some Northumbrian Fishery Names III in Durham Archaeological Journal, 4, 1988, pp 53-59;

2.M.H. Dodds, 1930, A History of Northumberland, Vol. XIII, p. 153; Surtees Society 6, 1837

HER 12722; Lemington, Bells Close Chemical Works, NGR NZ 188 644

Around 1793 Archibald Cochrane, 9th Earl of Dundonald, had a coal-tar distillery at Bells Close. This was the first alkali factory on the Tyne. The exact location is not known but the tar works were adjacent to an iron works (possibly in order that the coke could be used in smelting), presumably the Tyne Iron Works (HER 4346). It is therefore assumed that the tar works stood east of Tyne Iron Works, on the river bank in front of Holy Saviour Church. At the works the experimental production of soda was undertaken under the name of Losh and Co. (the partners were Dundonald, John Losh and Aubone Surtees, the banker). One of the processes depended on the solubility of sodium and potassium chlorides and sulphates. Salt and waste potassium sulphate from soap works were dissolved in water and evaporated until crystals of sodium sulphate were formed. The remaining potassium chloride was sold to alum makers in Yorkshire. The sodium sulphate was then heated with sawdust and iron oxide to form a small amount of impure soda. However most of the Bells Close soda was made by a different method discovered by Swedish chemist Scheele. Salt and lead oxide were stirred into a paste with water and left for a few days. Caustic soda was formed along with vellow basic chloride of lead (known as Turner's Yellow). The Bells Close factory only worked for four years, but the experiments enabled the partners to produce soda at their Walker factory from 1798 (HER 4197).

Sources:

1.University of Newcastle upon Tyne Department of Extra-Mural Studies, 1961, The Old Tyneside Chemical Trade, chapter V, page 12

HER 14646; Lemington, Bell's Close Centenary Chapel, NGR NZ 1915 6435

Wesleyan Chapel opened Good Friday 29th March 1839. Constructed of roughly coursed sandstone with lancet windows with a central entrance with gabled hood. A trefoil window was positioned about the front entrance. Originally rectangular in plan, the addition of a schoolroom in 1873 changed the plan to T-shaped. Between the 1930s and 1950s a toilet block and coal bunker was added to the NW corner of the school house. Closed 1975. 2015 used as an embroidery and print works by Elite Embroidery. Recorded in 2015 ahead of demolition. The interior of the chapel had been stripped of original features apart from a painted text of 'The Lord is in His Holy Temple' from the Book of Habakkuk in the Old Testament, the trefoil window and a partially ornamented scissor roof truss. The school house interior had also been stripped with only some curved ceiling decoration remaining. The exterior was described as being in good condition. A second storey had been erected within each building and extra partitions inserted.

Sources:

- 1.Peter F Ryder, 2012, Nonconformist Chapels and Meeting Houses in Newcastle and North Tyneside, a survey;
- 2.Archaeological Services Durham University, 2015, Former Wesleyan Chapel, Bell's Close, Newcastle upon Tyne Building Recording

HER 15239; Newcastle, Western By-pass, NGR NZ 2230 6946

The Newcastle Western Bypass was listed in the Department of Transport's 'Policy for Roads, England 1980' to link the A69 to the A1(M) to the south. The County Council proposed an extension of the bypass to the north. The bypass was opened and the Blaydon Bridge was named by Her Majesty the Queen in December 1990. The scheme was awarded to Bullen and Partners. The route was first suggested in 1936 and a corridor was reserved in the development plan for the area in 1945. Housing was built on either side of the corridor. The preferred route was announced in 1981 that linked the Great North Road near Gosforth to Scotswood Bridge. Scotswood Bridge was not in good condition and so Blaydon Bridge was built. The bypass is 11km long. It reduced traffic using the Tyne Bridge and removed much traffic from the City centre. It was designed to carry 50,000 vehicles per day. It is dual carriageway with a third lane between interchanges from Scotswood Road to Ponteland Road. Ten footbridges and subways were built to separate traffic and pedestrians. 1200 homes were noise insulated. Earth bunds and concrete screening walls, trees and shrubs reduce traffic noise. 66 houses were demolished to make way for the road. Where the road crosses the line of Hadrian's Wall, stone setts and a plaque were provided to mark the line of the Wall. The scheme cost some £88 million. The scheme was divided into five contracts. Contract 1 - Etal Lane to North Brunton. Balfour Beatty Construction Ltd. Started in August 1987. Opened to traffic in March 1990 by Robert Atkins MP, Minister for Roads and Traffic. Contract 1A - Fawdon Railway Bridge. Built by Cementation Projects Ltd. The bridge carried the new road over the Metro line at Fawdon. Contract 2 - Blaydon Bridge and Blaydon haughs Viaduct. Built by Edmund Nuttall Ltd. Commenced in November 1987. Blaydon Bridge is a five-span pre-stressed concrete structure. It was built using the balanced cantilever technique. It spans 108m over the River Tyne. The sandstone rock below the riverbed was found not to be strong enough to bear the weight of the southern main pier so mini-piles had to be drilled inside a cofferdam to strengthen the pier foundation. Blaydon Haughs Viaduct is a 17-span steel

viaduct carrying the bypass over A695 Chainbridge Road and the Newcastle-Carlisle Railway. It is 530m long and the deck incorporates 2,100 tonnes of steelwork supported on 3,500 tonnes of steel H-piles. Contract 3 - Derwenthaugh to Etal Lane. Balfour Beatty Construction Ltd. Commenced in June 1988. This section includes 7 road bridges, 8 footbridges, 8 subways and over 3km of retaining walls. Old coal mine workings were found. Shallow seams were excavated and filled with compacted soil. Deeper workings were injected with cement and pulverised fuel ash grout. One mineshafts were filled and capped with reinforced concrete. Contract 4 - Birse Construction Ltd. A 1km long section of road at Derwenthaugh where 8m high embankments were constructed over deep deposits of soft alluvial silts and clays. Commenced February 1987. Water was drained from the clay through vertical sand drains. 24,000 sand drains were installed (total length of 210km) on a grid layout. Once the ground was stabilised, the road could be built. The work took until August 1987.

Sources:

1.F.A. Sims, 2009, The Motorway Achievement - Building the Network in the North East of England, pp 64-72

HER 15347; Kenton Waggonway, NGR NZ 2190 6739

Circa 1700-1715. Kenton Estate is bisected by the 90 Fathom Dyke. Extraction of coal from the part of the estate to the south, upcast, side of the dyke, where the coal seams were shallower had begun by the 16th century. By the early 18th century a waggonway carried coal from West Kenton and Montague Main pits down to the River Tyne at Scotswood. This waggonway was closed by 1715 when the coal workings were flooded. Kitty's drift (HER 6959), a subterraneous waggonway, ran between East Kenton and Bell's Close on the River Tyne at Scotswood, exploiting untouched seams to the north of the dyke.

Sources:

- 1.Alan Williams Archaeology, July 2012, Waggonways North of the River Tyne Tyne and Wear HER Enhancement Project;
- 2.Turnbull, L. 2009 Coals from Newcastle: An Introduction to the Northumberland and Durham Coalfield, p 132

HER 15349; Callerton to Scotswood Waggonway, NGR NZ 1912 6989

This was a late waggonway, opened by 1827 and is shown on Watson 24/10. It served Callerton Colliery, possibly utilising the staiths on the River Tyne from the disused Fawdon Waggonway. It was managed by William Hedley who developed locomotive steam engines, but who here used stationary engines.

Sources:

- 1.Alan Williams Archaeology, July 2012, Waggonways North of the River Tyne Tyne and Wear HER Enhancement Project;
- 2.North East Institute of Mining and Mechanical Engineering: NRO/3410/ Watson 24/10: General Map showing the situation of the Tyne Collieries. Not dated but around 1830; 3.Turnbull, L. 2012 Railways Before George Stephenson, route 35A

HER 16175; Blaydon village, NGR NZ 1912 6989

According to William Whelan (1856) Blaydon was 'a considerable village' in the Parish of Stella. It was an industrial settlement which grew up around extensive chain and chain cable manufactories, chemical works, collieries, coke ovens, engine works, firebrick works, bottle works and iron works. In

1829 a suspension bridge was built between Blaydon and Scotswood. It opened in 1831. The Parish Church (St. Cuthbert's) was built in 1844. There were Primitive and Wesleyan Methodist Chapels. The Wesleyan Methodist Reformers met for worship in the mechanics institute. St Cuthbert's National School was built in 1853, the infants school in 1856. The Blaydon and Stella Mechanics Institute was built in 1852. Also in the village there was a Building Society and a Sick Benefit Society, both 'in a flourishing condition'. Blaydon Gas Works was established in 1853. John Palmer Dalton was the postmaster at Blaydon Post Office in 1856. There are 4 boot and shoemakers listed in Whelan's Directory, 6 butchers, 1 cartwright and joiner based at Blaydon Burn, two chain and chain cable manufacturers (Edward Hall and Robert Hall & Company of Blaydon Iron Works), two chemists manufacturing (Blaydon Chemical Company and prepared bone manure) and GH Ramsay based in Derwenthaugh). Two coal owners and merchants (Joseph Cowen & Co, Blaydon Burn and GH Ramsay at Blaydon Main). Three coke manufacturers (the Marquis of Bute of Derwenthaugh, GH Ramsay and the Stella Coal Company). One engine builder (GW Hawdon and Sons). Four firebrick and gas retort manufacturers (W Cochrane Carr, Joseph Cowen & Co, W Harriman & Co and GH Ramsay). Two glass bottle manufacturer (North Durham Bottle Company and Blaydon Bottle Works). 10 grocers and provision dealers, 2 hinge manufacturers. 8 inns, hotels and taverns (Bee Hive, Black Bull, Board, Glass House Tavern, New Inn, Railway Inn, Red Lion, Royal Oak). 3 beer retailers. One iron and brass founders (GW Hawdon and Sons of Blaydon Foundry). 3 joiners. 1 nail manufacturer (Robert Hall & Co). 2 painters and glaziers. 1 saw mill owner (John Nicholson). 2 stone merchants. 1 surgeon (Philip Brown M.D. of Blaydon House). 4 tailors. 1 tallow chandler and 1 timber merchant.

Sources:

1. William Whelan & Co, 1856, History, Topography and Directory of the County Palatine of Durham

HER 16184; Blaydon Haughs, Pioneer Tavern, NGR NZ 191 637

In 1856 the landlord was Simon Hood.

Sources:

1. William Whelan & Co, 1856, History, Topography and Directory of the County Palatine of Durham

HER 17458; Lemington, Bell's Close, Rokeby Arms Public House, NGR NZ 198 643

The Rokeby arms was run in the middle of the 1850s by Joseph Wren in conjunction with his butchery and grocery business. The property, like much of the area, was originally owned by the Lord Rokebys of Denton Hall who owned Montague Pit. The pub received a full licence and was acquired by Northumberland Hotels in 1947 when it was extended and altered. It was demolished in the late 1980s to make way for the western bypass.

Sources:

1.Bennison, B, 1998, Lost Weekends, A History of Newcastle's Public Houses, Vol 3, The West

HER 17463; Lemington, Tyne Iron Public House, NGR NZ 184 644

The original Tyne Iron Public House (not to be confused with the Tyne Iron which replaced the Forge Hammer PH in the 1930s HER 17462). The first Tyne Iron pub was situated opposite the Lemington Glassworks and was part of a row of cottages connected with the Tyne Ironworks (exact location unknown). It was from the appearance of the landlord of this pub that the nickname 'Hairy Man's' may have originated.

Sources:

1.Bennison, B, 1998, Lost Weekends, A History of Newcastle's Public Houses, Vol 3, The West

4.2 Events listed in the HER within the vicinity of the proposed development area

HER 1404; Newburn Haugh, NGR NZ 182 640

Assessment of prospective development site at Newburn Haugh. Area was probably subject to prehistoric and Roman activity but direct evidence for land-use is available from C13. From C17 industrial features are shown on map evidence. Lemington Glass Works and the Tyne Iron Works were established in C18. The report recommended the preservation of surviving riverside quays and the recording of industrial structures within the former Tyne Iron Works. Survey work should be carried out to detect and record surviving wagonway courses. Part of the battlefield site should be preserved as open space.

By: The Archaeolological Practice, 1999

HER 2077, Lemington Glass Cone; NGR NZ 183 644

Assessment of former glass cone which is listed grade 2*. A square glass house dating from the earliest phase of glassworking on the site lies to the west of the cone. Other structures survive on the eastern side. EVA/WB recommended.

By: Northern Counties Archaeological Services, 1997

HER 2860; Scotswood Road; NGR NZ 18704 64553

Assessment of part of the Tyne Iron Works. Elements of former brick buildings relating to the iron works survive at the west end of the site. Building recording and evaluation trenching recommended. Archaeological Services Durham University, Land off Scotswood Road, Lemington, Newcastle upon Tyne - archaeological desk-based assessment

HER 3521; Scootswood Road, Lemington; NGR NZ 1857 6449

A cultural heritage assessment determined that the site was formerly occupied by Lemington Iron Works. The works were established in the late 18th century and were in use until the late 19th century. A power station was constructed on the site in the early 20th century. Remnants of the iron works still survive.

By: Scott Wilson, 2007, Scotswood Road, Lemington - cultural heritage assessment

HER 4192; Newburn Riverside; NGR NZ 17974 64153

Assessment ahead of potential development at Newburn Riverside. Due to the use of much of the site in the post-WWII period for landfill and industry, the archaeological potential is assessed as low to none. Historical mapping is discussed but not presented in the report.

By: Wardell Armstrong Archaeology Ltd., 2014, Newburn Riverside: Archaeology and Cultural Heritage Initial Constraints Report

HER 4230; Lemington Power Station; NGR NZ 1854 6446

Building recording of 1903 coal-fired power station ahead of proposed demolition. It stopped producing power in 1919. The gantry and compound walls have disappeared leaving a bare shell of the former power station, with no plant and little evidence of its original operation. The building is in poor condition.

By: Archaeological Services Durham University, 2015, Lemington Power Station, Newcastle upon Tyne - Historic Buildings Recording

HER 4361; Former Wesleyan Chapel, Bell's Clos; NGR NZ 1915 6435

This archaeological building recording was conducted in advance of development to the site of the former Tyne Iron Works site. The recording consisted of a drawn and photographic survey of four different sections of the site: two walls with one being the remains of a building, a row of beehive coke ovens and part of a large battery of kilns. Of the surviving structures, they date from the 18th to early 19th century and each remain in a different condition varying from stable to poor. To the northwest of the site a brick and stone wall partly remains suspected to be the south-east corner of a building. Another wall is present to the east, a larger wall (Max 3.05m high) which is at the end of a large building running north-west-south-east, brick with sandstone quoins. It is also suspected more remains of this building could be found through excavation of the high ground to the north. To the south east of the site are the remains of 3 damaged beehive coke ovens, the southernmost of which abuts the end of a stone and brick wall. The wall which is evidence of a lost building acts as a retaining wall 10m long and 2m high, built in English Garden Wall bond with a small vaulted chamber at the right hand end of the wall. Of the remains of the coke ovens, one in the middle is relatively complete and built into the slope to the east of the old hotel. On either side of this oven there are the fragmentary remains of the others, also built into the slope. All similar domed structures made of radially-laid courses of tapered firebrick and around 3.2m in diameter, 2.66m in height. In oven 1, there remains part of the brick flooring in the southern edge, in oven 2 (middle oven) the brick paving remains inside and outside. All that remains of the stone kiln wall is the side of an opening and the springing of a brick arch, with the interior of the opening built into the sloped hill filled with debris and overgrown. The wall stands to a height of just over 1m and appears to be at the centre of the opening of a wide kiln. The back of which survives as a curved section of red brick wall near the head of the slope. Recommendations include further recording which is planned after excavation and clearance works.

By: Archaeological Services Durham University, 2015, Former Wesleyan Chapel, Bell's Close, Newcastle upon Tyne - Building Recording

5. SYNTHESIS

5.1 Early Prehistoric

There is no known evidence of early prehistoric activity within the bounds of the assessment area. It should be assumed that some level of activity, whether involving periods of permanent settlement or sporadic land-use for hunting and low-intensity farming occurred within the assessment site over the several millennia of known human presence in the area dating from the recolonisation of northern England after the last Ice Age. The evidence for such occupation is not easily located, since it is not usually marked by substantial structures or dense scatters of material.

5.2 Later Prehistoric and Romano-British Period (2500BC to 400AD)

There is no direct evidence for any activity within the current site boundary throughout the later prehistoric and Romano-British periods. However, given that Newburn was a known fording point of the river, and the importance of rivers for travel and transport, it is highly likely that this fording point would have acted as a focus for local activity during these periods. Furthermore, prior to the remodelling of the river here, the current site was on the landward side of a pronounced meander in the river which resulted in Lemington Point being nearly entirely surrounded by the river. This isthmus would have been a prime location for prehistoric settlement or activity which is often found near rivers and crossings, but the extensive remodelling of the landscape and subsequent industrial use is very likely to have destroyed any remnant of such activity.

Use of the fording point at Newburn is assumed to have been further exploited during the Roman period. Coupled with Newburn being the highest navigable tidal point along the river, this would have resulted in a variety of military and civilian activity within the Newburn area. Once again though, where and in what form this activity occurred is otherwise unknown. The construction of Hadrian's Wall a short way to the north would in itself have necessitated a great deal of traffic along and across the river. It is likely that the current site would have been adjacent to any such activity.

5.3 Early Medieval Period

Evidence for early medieval activity on the site is as sparse as for the preceding periods, although the development of the villages of Lemington and Newburn can be dated to this time. Once again, the fording point and tidal quality of the river here would have acted as a focus for activity, but none is known from either the site itself or the very immediate surrounding area.

5.4 Medieval and Post Medieval Periods

There is good documentation for the medieval Manor of Newburn and township of Newburn Hall from the 13th century, but it is not unreasonable to assume continuity of land-use in some form from the end of the Roman period. The medieval settlement at or close to the present site of Newburn continued as a village into the post-medieval and succeeding periods, leaving rig and furrow earthwork features in fields north and west of the assessment area as evidence of cultivation. Sixteenth-century documents first mention Lemington as Laman Mill, Lamedon and Lemanton, and it may be that staithes also date from this time. The first mention of coal mining in the area, specifically

in the Manor of Newburn, is in an Inquisition Post Mortem of Ralf de Neville dating to 1367 (Dodds 1930, 145) in which a coal mine worth 40s a year is included amongst his assets.

Nearby, the Lemington Glass Works (1787) and the Tyne Iron Works (1797) occupied a large area north of the river, incorporating a wide range of industrial features including lime kilns and waggonways, as well as dwellings and associated services. Mid-19th century changes to the course of the Tyne instigated by the Tyne Improvement Commission and the increasing economic competitiveness of the railways, led to the decline of the area and migration of both industrial producers and river staithes downstream. The continued decline of the region led eventually to the infilling of most of Lemington Gut and the abandonment of its staithes.

5.5 Development of the Assessment site as revealed by historic map analysis

One of the first maps to begin to show any real detail of the area is Armstrong's map of 1769 (Illus. 03), which although not showing any structures or features within the current study area, does show the surrounding settlements. The majority of any development can still be seen to be on the northern side of the river meander around the township of Lemington. Casson's map of 1804 (Illus. 04) illustrates the use of this northern area as a focus for waggonways bringing coal to the stages here in order to take down river.

By the time of the First Edition Ordnance Survey of 1862 (Illus. 05), the development and industrialisation of the northern bank is clear. Industrial developments in and around Lemington village are shown at their peak, immediately before works by the Tyne Improvement Commission changed the course of the river. The well established Lemington Glass Works, Tyne Iron Works and Staithes dominate the portion of riverbank opposite the original Lemington Point, with associated lime kilns, coke ovens, quarries and un-named earthworks also depicted. Coal pits lie within 200m (0.20km) of the Tyne above the riverside Bell's Close. Waggonways, directed principally towards Lemington Staithes from the west and northwest, converge on the zone of concentrated industrial activity while domestic housing is interspersed within it along with service facilities such as a hotel, public houses, wells and gardens. To the south, the industrial expansion of Blaydon encroaches nearer, with coke ovens, lampblack works, and sanitary pipe works a short way to the south of the current site, yet aside for a single solitary fishing hut, Lemington Point itself remains undeveloped. The majority of the current site still lies within the river channel and beneath the high tide line.

The changes wrought on the area by the River Comission works is evident on the Second Edition Ordnance Survey map of 1898 (Illus. 06). By this time work is progressing with cutting off the meander of Lemington Point, leaving the Lemington works to the northwest alongside a still navigable, but increasingly silted up channel which would eventually become Lemington Gut. The current site is now in its present location on the edge of the newly formed northern bank of the river. The southwestern part of the site, which had originally been within the river channel, is now beginning to be reclaimed, with an embankment forming a landbridge to Newburn Haugh, as well as carrying a new waggonway track which runs along the line of the current footpath alongside the southeastern edge of the site. No other development is noted as taking place on the current site itself however.

The decrease in industrial activity around Lemington Point (the north side of what became known as Lemington Gut), suggested by the diminished staithes facility, is most clearly indicated by the closure of the Tyne Iron Works, now marked as disused. While the Glass Works continues to operate, it is

clear that much of industry and most remains of industrial activities in the area, notably the various earthworks visible on the First Edition O.S. map, have been removed in favour of residential developments and associated services, notably a school, which are encroaching particularly from north of the main east-west railway line (N.E.R.). Eastwards along the river front, mainly east of Bell's Close in the Scotswood area, are a number of recently established brickworks and other factory developments whose transport links are via the N.E.R. rather than staithes. Thus, improvements to the course of the Tyne in this area seem to have had the effect of, or at least contributed towards, the economic demise of industrial development around Lemington, forcing it to expand eastwards towards the city, making use of increasingly efficient railways rather than the traditional mode of transport, the river.

By the time of the Third Edition Ordnace Survey map of 1921 (Illus. 07), we begin to see some development within and immediately around the current site. Boundaries and land sub-divisions associated with the Anglo Great Lakes Munitions Factory (HER 4943). As stated in the HER entry for the site:

During World War 1 Lemington Point was known as "Canary Island" due to the existence of a munitions factory using a substance (cordite) with a bright yellow colouring. For many years after the war local people in the area still had traces of this colouring on their hair and skin. The Point was an ideal location for a munitions factory, given its isolated site - it was physically separated from the rest of Lemington, and accessed only by a wooden bridge.

Detailed plans for the structures associated with these works are not available, but the Third Edition OS does show a number of structures bordering the northern edge of the current site, and it is to be assumed that these works (and the waste associated with them) spread across the current site area.

By the 1957 Ordnance Survey map (Illus. 08), most of the strucures associated with the Great Lakes Factory have gone, save for a single building accessed via a path across the land bridge from Newburn Haugh to the southwest. This path leads across the current site, and the single surviving building is located against the northern boundary of the site. To the east of the site, the former jetties on the river's edge are now marked as disused. The site itself, along with the rest of Lemington Point, is depicted as scrub and uneven ground, especially within the area of the former munitions works.

In 1958, just after this map, new buildings associated with the Anglo Great Lakes Graphite Works were constructed on the current site. These are visible on the 1967 Ordnance Survey Map (Illus. 09), which shows a long building with small return wings at either end. To the southwest is Stella Power Station, which was actually commissioned between 1954-57 (and presumably did not appear on the 1957 Ordnance Survey Map as the map had been surveyed a little earlier). The Graphite Works were constructed to allow the conversion of carbon into graphite for the nuclear industry.

By the time of the 1984 Ordnance Survey map (Illus. 10), additional buildings (with associated roads/hard standing) have been constructed to the northwest of the main structure, and a conveyor is marked as running along the southeastern edge of the site. An outfall leading into the river here presumably helped to continue drainage of the site.

In the early 1990s, the Stella and the Graphite Works were decommissioned and demolished. Following this the entire area was reclaimed for redevelopment as the Newburn Riverside Site. The current site survives as an as yet undeveloped part of that scheme. Surrounding the site to the north

and west are the roads, offices, and buildings of the Newburn Redevelopment, and to the south the line of the former waggonway has been reclaimed as a public footpath between the current site and the river. Semi-mature trees and shrubs grow along the borders of the site, and within the land is a mix of uneven grass tussocks with more marshy ground towards the river.

6. ASSESSMENT OF SIGNIFICANT POTENTIAL & IMPACTS

6.1 Archaeological Potential

The archaeological potential for this site is assessed as being low.

As the southern half of the site was, until the 1850s, within the Tyne river-channel, any potential surviving archaeological remains will be buried at a considerable depth beneath the subsequent filling in of the old river channel.

The northern part of the site appears to have remained undeveloped until the construction of the Anglo Great Lakes Munitions, and later Carbon, Works. These activities, and the levelling works associated with their construction and demolition, are likely to have greatly impacted any potential earlier surviving archaeological remains within the area of the site, along with the prospect of chemical contamination. However, the chances of there being any such remains is seen as very low, given that this appears to have been an historically undeveloped area away from the activity centres of the river fording points and the later industrial activities.

6.3 Assessment of Impact

6.3.1 Archaeological Impact

Although of relatively low archaeological potential, the development of this site is likely to have some impact on any surviving sub-surface features, should they exist.

Given that the southern half of the site lay beneath the Tyne river-channel until the 1850s, the depth of overburden from back-filling the old channel is most likely to exceed the depth of any potential landscaping or foundation trenching associated with redevelopment. However, this should preferably be assessed via geo-technical bore-hole data and used to inform any proposed depths for redevelopment of the site at the planning stage.

The impact of redevelopment upon potential archaeological remains in the northern half of the site, would be considered higher than the southern half, as the historic record indicates this area to have always been adjacent to and not within the river channel. However, as previously stated, the likelihood for archaeological remains surviving in this area are considered low, due to the construction and demolition of significant industrial works in the 19th and 20th centuries.

6.3.2 Visual impacts

It is not considered likely that any sites of cultural heritage significance in the wider vicinity have the potential to be significantly impacted by the proposed redevelopment of this site. Modern industrial development from the Newburn Riverside, already surrounds the site. This, along with high tree-lines and hedging forming its west, north and east sides (see *Appendix 1*), enclose the site and block sitelines between it and sites of designated cultural heritage value in the wider study area.

7. CONCLUSIONS

7.1 Summary of Historical development

There is no direct evidence for prehistoric or Roman activity on the site, or indeed in the immediate surrounding area, but given the existence of a nearby fording point across the river, as well as Newburn being the highest navigable tidal point, activity from these periods cannot be discounted.

Settlement of the surrounding area is known to have been established by medieval times, with Lemington, Newburn, and Blaydon villages dating to this time. Subsequent to this, the development of the coal and related industries saw the area become increasingly occupied, though again none of these are known to have taken place upon the current site itself.

Only by the later 19th century, following the alterations to the River Tyne in this area, do we begin to see activity on the current site. The establishment of the Anglo Great Lakes Munitions Works from the time of WWI, followed by the Anglo Great Lakes Carbon Works in the 1950s all directly impacted the current site.

The depth of excavation required to reach potential archaeological levels in the southern part of the site (the former river channel), and the level of disturbance and contamination likely to have been caused by the munitions and carbon works across the remainder of the site mean that the a proposed redevelopment of the site is unlikely to encounter any such remains.

Thus, although the possibility cannot be entirely discounted, it is considered unlikely that any archaeological remains are present on the current site, but development of the site is likely to have some impact on any surviving sub-surface features, should they exist.

8. RECOMMENDATIONS

Based on the findings of the assessment, the following recommendations are made in order to evaluate the impact of proposed development upon potential sub-surface archaeological deposits surviving there.

Given that the southern half of the site lay beneath the Tyne river-channel until the 1850s, a recommendation for geo-technical bore-holing should be used to inform any proposed depths of redevelopment of the site prior to the determination of a detailed planning proposal.

The northern half of the site was formerly occupied by significant industrial works from the 19th -20th centuries, with the potential of chemical contamination. The depth and extent of this should be assessed by specialists prior to any archaeological considerations. The results of such action would inform proposals and would help the Tyne and Wear Archaeology Officer develop further mitigation strategy as appropriate. If considered feasible, an archaeological evaluation or targeted watching brief could be implemented.

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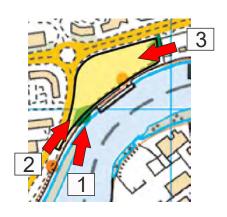
APPENDIX 1: SITE PHOTOGRAPHS



Site Photo 1



Site Photo 2

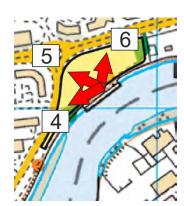


Site Photo 3





Site Photo 4



Site Photo 5



Site Photo 6

The Archaeological Practice Ltd.



Westmorland House, Elswick East Terrace, Newcastle upon Tyne, NE4 7LJ Tel: 0191 273 0777; Fax: 0191 273 1777 Email: info@archaeologicalpractice.co.uk Web: www.archaeologicalpractice.co.uk