The Industrial Archaeology Group for the North East

Bulletin 5
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Ironstone Workings of Port Mulgrave  
S. K. Chapman  3

Crathorne Mill  
H. E. S. Simmons  8

North Walbottle project  
S. M. Linsley  9

Alum Industry of North East Yorkshire  
S. K. Chapman  11

Tramcar relics  
G. Hearse  14

Pencil Mill at Cronkley Scar  
Frank Atkinson  17

Teesside programme  

Index to Bulletins 1 to 5 19
Our advancing studies

Things have been happening since Bulletin 4 was published. The Tyneside Industrial Archaeology Group has come into being and is now energetically pursuing a number of projects. One, the North Walbottle project, is already far enough ahead to permit an interim report here. Elsewhere in the region, a group with Michael Wheeler as leader has been surveying the Killhope lead crushing mill and we hope to be able to publish this soon. And we learn that there may be a chance of preserving in situ part of the Healeyfield smelt mill flue complex. This has never been fully surveyed: any offers?

Aerial photography can help in a difficult site like Healeyfield, and it has already proved possible to record from the air a square mining village in County Durham, which could not be adequately photographed from the ground. There may be scope here for further recording, so suggestions as to suitable sites for aerial photography would be welcome.

Another development since our last Bulletin has been the appearance of the 'Friends of the Northern Regional Open Air Museum'. These 'Friends' have published an attractive booklet entitled Living History which is available (price 3/6) from Eric Griffith, Hon. Secretary, Whitethorn, East Oakwood, Hexham. Progress with the Regional Museum seems to be moving a little and your Committee are alive to the problems of the Museum and the urgency of its work.

Mention of urgency reminds one that the Cramlington air-ship hangar is about to be demolished. This remarkable building, which is unknown to most people has been pictured by our roving photographer, but someone might care to do a little more, locally?

It is regretted that no acknowledgement was made for the very detailed list of North Yorkshire sites published in Bulletin 4. This was prepared by the Teesside Group and special mention should be made of the work of Roger Pickles and Keith Chapman. Initial check lists have now been published for the three counties and additions or corrections are invited.

The tempo of work is now building up in the region, as these notes indicate and perhaps the time has come to change the Bulletin into a more permanent annual production, leaving a sligher Newsletter to be published more frequently. In any event your contributions are welcomed and as an experiment in this issue we are reproducing two photographs. It is only fair to point out that they are old ones and were not very clear even before we printed them!

PORT MULGRAVE Ironstone Workings
S. Keith Chapman

Early in the 1850's Messrs. Palmers of Jarrow-on-Tyne acquired the lease for working the main seam of ironstone outcropping on the beach south of Staithes, this stone being taken away by beach shipping. Nearby at Rosedale Docks they commenced working the top seam of ironstone which is about 200 feet higher up the cliff face. This stone was originally lowered onto the beach shipping jetty by a self-acting inclined plane, but this was followed by sinking a shaft in the cliff for a depth of about 22½ fathoms, which was then connected by a short tunnel to the docks being constructed. These docks or stone built jetties enclosed an area about 3 acres in extent and cost between £40,000 to £50,000 to build. By 1856 two further shafts had been sunk into the cliff top and the main seam of ironstone located. At this point on the coast the top seam is about 4 feet thick, and the main seam about 8 feet thick, the 200 feet intervening being mainly shale. The top seam workings were afterwards abandoned, but the beach workings of the main seam continued for a considerable time afterwards.

On land the location of the main seam is about 10 feet below sea level, dipping in a southerly direction, so the short tunnel leading from the docks was extended westwards and galleries driven off each side of this to form the workings of the mine. At this time the stone vended from here and the beach at Staithes was about 23,500 tons per annum, but it was estimated that 70,000 tons per annum could be vended if necessary. In 1856 in consequence of the name being confused with the Rosedale Abbey district it was decided to re-name it Port Mulgrave. (The Mulgrave Estates of the Earls of Normany lie to the southwest.)

The tunnel or drift entrance to the mine leading to the main seam is about 25 to 30 feet above sea level, so the stone was run in tubs along a 3 foot gauge railway built on top of a large wooden gantry erected on the southern arm of the stone jetty of the harbour. A series of wooden boxes was built into this gantry as bunkers for storing the ironstone, each box holding from 50 to 60 tons, and the total range consisting of 20 boxes.

Later a spur was constructed on the south side of the gantry for stockpiling the stone in the open space nearby. In 1912 it became necessary to construct a second spur in order to extend the area available for open stock piling. To remove this stone a short incline was built leading up to the east.
end of the main gantry and a vertical boiler driving a steam powered donkey engine was constructed to pull the tubs of stone onto the gantry. At the west end of the main gantry a further spur pointing north was used for the unloading of coal brought in by the ships. This was by means of a bucket crane standing at the end of the gantry. The buckets of coal from the ships being tipped into hopper tubs, which were unloaded into chutes fitted at intervals between the rails running along the top of the gantry. Beneath the main gantry was also situated a steam haulage engine and boilers. This was used in conjunction with a main-and-tail rope system to haul the tubs of stone from the drift entrance onto the gantry top. A small 2 foot gauge railway line enclosed the harbour area, being built along the top of the stone jetty. On this railway a horse-drawn tub periodically collected lumps of sandstone which had fallen from the cliffs above and these were used for maintenance and repairs to the jetty. (See attached plan for general details.)

In the Harbour's early days sailing vessels were used, but these were soon replaced by paddle tugs hauling barges. The names of these tugs were "Cleveland," "Saxon Prince" and "Emperor." The barges were named "Lofts" and "Europe." A further tug "The Australian" was usually kept in reserve. By the end of the 19th century the tugs were replaced by two steamers "Staithes" and "Grinkle." The latter was originally built as a petrol driven vessel and named "Motor" but this proving unsuccessful it was altered to conventional steam power and re-named "Grinkle". The "Staithes" was a twin-screw ship built by D. Baxter & Co., in 1883, with engines and boilers supplied by Palmers, gross tonnage being 300 tons. The steamers sometimes carried a cargo of coal to London and on the return collected ironstone at Port Mulgrave for transit to Middlesbrough and Harlow on Tyne. Approximately 2,500 tons to 3,000 tons of stone per week were transported to Jarrow at times. The normal procedure was that vessels approached the harbour at Port Mulgrave during high tide and a flag was flown from the top of the gantry at the harbour entrance, the flag having a recognition letter displayed on it which allowed the vessel to proceed. As she entered the harbour mouth a rope from the bow was thrown onto the south jetty and a hawser was brought in. The tide swung the vessel into the harbour until it faced the entrance again and was then made fast alongside the boxes. Loading had to be accomplished swiftly so that the ship could leave harbour before low tide. This work was usually completed in about an hour with 300 tons of stone being taken aboard during this time. To assist the loading a windlass travelled along the top of the main gantry above the bunkers, and a rope from this was attached to the bottom of the door in the front of each box in turn, the door was raised and the rope was passed over the bull of the barge or ship. The door was then lowered, but at times became jammed with stone, in which case a man had to be lowered by rope down the gantry side to dislodge the obstruction with an iron bar. The windlass then proceeded to the next box and so on, until the loading was completed.

It was a standing rule at the harbour that whatever time of day or night ships arrived they had to be loaded immediately. The Mines' Cashier's House on the cliff top was the first in the district to have a telephone installed, and this was chiefly used to pass on sailing times between the harbour and Jarrow-on-Tyne. In bad weather the ships sheltered at West Hartlepool, but in 1917 the vessel "Grinkle" foundeder in the Tees Bay during a storm.

In busy periods men worked over on the open stock pile beside the gantry, at nights and during weekends, and were paid an extra 6d per hour for this labour; alternatively during slack times men were employed repairing the stone jetty walls. In fact when the occasion demanded they became miners in winter and fishermen in summer. The buildings and cottages at the cliff top were made entirely for the use of the miners and were connected with the workings by a series of steps down the side of the cliff. The village was also called Port Mulgrave and consisted of a short row and a long row of terraced houses, some cottages and the Mine Cashier's House already mentioned.

In 1874 Palmers obtained further ironstone royalties in the nearby valley of Grinkle and commenced working the main seam there. At that time there was still no rail outlet for the area so the main drift at Port Mulgrave was extended through the hillside and made into a tunnel a mile long with the 3 foot gauge railway line connecting this with the mine at Grinkle 2$\frac{1}{4}$ miles away. All the stone from Grinkle passed through this tunnel to the harbour, and by 1880 when the Port Mulgrave workings were exhausted it continued to be used solely for the Grinkle stone.

In 1916, a steep incline was constructed in the valley at Grinkle, leading up to the main North Eastern Railway line from Loftus to Whitby, and in sidings at the top of this incline the Grinkle ironstone was tipped into standard gauge wagons.

The rail link to Port Mulgrave remained, but was used only for transporting the miners to and from Grinkle, and the final train ran on 30th May, 1930. The line was subsequently lifted after the Grinkle Mine had closed in 1934, and shortly afterwards the harbour installations at Port Mulgrave were demolished, a fire hastening the process, only the stone jetty remains.

As a postscript it is of interest to note that a Dutch motor vessel was employed later removing scrap iron from the harbour remains and these were shipped to Whitby Harbour, put on rail to Middlebridge and then sent to Skinningrove works. As Port Mulgrave and Skinningrove are only a few miles apart the reason for this novel method was said to be that the Tees Dues were so high compared with Whitby, and that using a Dutch ship meant a saving that paid for the extra rail freightage involved.
1. CLIFF COTTAGES
2. TUNNEL ENTRANCE
3. CLIFF FOOTPATH
4. BOILER & ENGINE HOUSE.
5. STORAGE BOXES
6. CASHIERS HOUSE & OFFICE.
7. COTTAGES SHORT ROW.
8. COTTAGES LONG ROW.
9. BUNGALOWS

PORT MULGRAVE
C. 1920
NOT TO SCALE

The harbour at Port Mulgrave, about 1900

S.S. Staithes at Port Mulgrave, about 1900
Crathorne Mill
H.E.S. Simmons

Mention by Tom Hay in Bulletin No. 4 of the Crathorne corn mill (p. 23) brings to mind that at one time there used to be two bleaching mills here in addition to the corn mill. In 1717", says Victoria County History, "Ralph Crathorne had a water corn mill and a fulling mill leased to George Flounders. The bleaching industry flourished in Crathorne in the 18th and early 19th centuries, and in 1808 there was an extensive bleach ground and two bleaching mills, with the old flour mill nearby. The water for the bleaching mill was brought from a fine chalybeate spring on the west bank of the Leven. In 1844 only the corn mill was working."

In 1783, John Flounders 'of Craythorn Mill in the county of York, Bleacher', presumably of the same family as the Flounders mentioned in 1717, insured his 'Water Millhouse, Bittering House, Bolihouse, Sour House and Offices adjoining and communicating, brick and stone built and tiled and slated, and on the mills therein, situate at Craythorn Mill aforesaid and known by the name of Bleachfield Mill' for £200, and the utensils and trade for £1,000. (Royal Exchange Fire Insurance Policy No. 86794, 6 June, 1783).

In 1801 Joseph Nevill 'of Crathorn Bleachfield in the county of York, Bleacher and Corn Miller' took out a policy which included his 'Water Millhouse, Kiln and Granary adjoining, situate at Crathorn Bleachfield aforesaid, £200; the Water Wheels, Standing and Going Geers, Millstones, Machines etc. therein, £200; and 'on Stock in Trade and Utensils £400'. (R. E. F. I. P. No. 181815, 29 Jan. 1801).

In 1844 there was to be sold by auction 'A Water Corn Mill situated on the banks of the Leven in Cleveland, on the Crathorne Estate, in the North Riding of Yorkshire. The mill has an 18 feet fall and works a Thrashing Machine' (Midland Counties Herald, Aug. 8, 1844).

Directory references in subsequent years record John Watson, corn miller, Craythorne, 1865; Bell & Orange, corn millers, Crathorne 1872; James Bell 1879; Thomas Dobson 1889-1921; C. & J. Dobson 1925; and Thomas Dobson 1933.

NORTH WALBOTTLE project
S.M. Linsley

On the 22nd February, 1968, the last coals were drawn from the North Walbottle Colliery (NZ 16/182682), just one amongst many pit closures in the North East of England. However there are several reasons why an industrial archaeology group should develop a scheme in North Walbottle and the surrounding environment. Without hoping to give all of these reasons, it may be instructive to consider some of them in reverse chronological order.

Firstly, with the closure of the North Walbottle Colliery, comes the closure also, of the last self-acting inclined plane in Northumberland. Since 1892 when the colliery was opened, its coals have almost certainly been transported down the steep banks of the Tyne Valley to Lemington, via this inclined plane, which is in itself worthy of study. Of further interest are the varied rolling stock (including passenger coaches) which have worked that line. Turning to the colliery itself the Betty and Mary shafts are served by two magnificent steam winding engines (circa 1900) which are in turn served by boilers, of which two are the original hand-stoked versions. Also working are two steam powered water pumps and a steam powered drop-hammer. The colliery is also notable for its splendid access saving travelling time underground, for its pithead baths highlighted and honoured with a photograph in Pevsner's book "The Buildings of England - Northumberland" for its associated colliery village complete with village "Green" but with its few back-to-backs now demolished, and for several other features.

Going further back in time we find that the neighbouring Coronation and Blucher Pits, transported their coal down the hillside via a continuous rope tramway which operated parallel to the North Walbottle waggonway from about 1900 to 1955. And yet, going still further back, we learn that these pits had themselves used the waggonway from as far back as 1827, long before the North Walbottle Colliery existed. A few of the Coronation and Blucher pit buildings still exist and the line of the tramway can be easily followed.

Not so easily followed is the still earlier waggonway which ran from older pits in the neighbourhood of North Walbottle, down to the Staithes at Lemington. Thus, prior to 1830, numerous pits existed within a mile radius north of North Walbottle.
Walbottle Colliery, at locations marked on contemporary maps as Grenwich Moor, Walbottle Moor and Hollywell Reins. Their waggonway had several branches, most of which can be traced only with difficulty, but these branches eventually became one line before passing what is now the "Engine Inn" at Walbottle and descending through Walbottle village and so on to Lemington. Although the geography of this waggonway is becoming clear, its history remains hidden.

There has been no attempt to be comprehensive in this short article, but it is hoped that there has been sufficient to whet a few appetites and that eventually the full story can be told. The North Walbottle Project is the first to be undertaken by members of the newly formed Tyne Area Industrial Archaeology Group, which has usefully focused the various disciplines and interests of about a dozen people. To date we have visited the colliery and incline, held about six evening discussion meetings, visited sources of information, prepared maps and drawings, etc.

The story is emerging but is far from complete.

Anyone having information or can suggest access to such information concerning this project, is asked to contact S.M. Linsley at 48 Wedmore Road, Newcastle-upon-Tyne. NE5 5NR.

Concluded from page 13

OTHER ALUM SITES

Hawsker Bottoms 1765 (trials)
Saltburn (Alum Houses) 1670 revived 1765/9
Grosmont 1610 (short life)
Easington 1672 to about 1674
Kirkleatham 17th century
Cringe Moor, Kirkby
Ingleby, Midnight House 18th century (trials)
Skelton Ellars 17th century

ALUM INDUSTRY of North East Yorkshire
S. Keith Chapman

Alum is a commodity of much less importance today than in former times, and the uses of the chemical are now little known. In medieval times however, it had a tremendous value and was used extensively in dyeing, tanning and in medicine. In modern times its place has been superseded by cheap and efficient substitutes.

In dyeing alum was used as a mordant to combine with dyes deposited on the fibres, the fabrics used being cotton and silk.

As a tanning agent alum was used very extensively. Its effect was to bind the fibres of the leather together and render it waterproof.

In medicine it was used in many ways, in the preparation of gargles, pills, powders and the like.

By its mild acidity it coagulated milk, and it possessed a remarkable astringent power. It was added to tallow to make candles hard and printers' cushions were rubbed with burnt alum to make the ink stick. A mixture of resin, starch and alum added to paper pulp formed a precipitate for paper sizing, and clothes and fabrics soaked in alum solution were made almost non inflammable, and the process was also followed for making waterproof fabrics.

There were many other ways of using alum and the establishment of the industry in this country had far reaching consequences.

GEOLOGICAL

Geologically speaking alumina is one of the earth's commonest compounds, but in early times it was available for alum making only in alum rocks and shale, which would yield aluminium sulphate by a simple process of calcination and lixiviation.

HISTORY

The alum rock alunite is found in the Levant and Eastern Mediterranean regions, and this is where alum was first used in ancient Egyptian times according to Greek and Roman sources.
In Europe alum used in the early Middle Ages appears to have come from these same regions, but when the Eastern Empire fell in 1453 the Turks took over the alum mines from the Genoese and worked them on their own account, exacting yearly tribute. This caused the Italians to look for alternative supplies, and in 1459 mines were opened near Volterra, and in 1462 more important mines were opened at Tofa, both in Italy. This latter discovery caused Pope Pius II to reassert the overlordship of the church over the territory and he claimed exclusive rights over the produce of the mines. After the Reformation mines were opened in Spain, France and Germany, and in England both Henry VIII and Queen Elizabeth I tried to establish mines in the Isle of Wight and Dorset to combat the Pope's monopoly. The mines in Western Europe produced alum from the Upper Liassic series of shales, laid down during the Jurassic period.

The first successful works in England, were established at Belman Banks, near Guisborough, and worked by Sir Thomas Chaloner, but the actual discoverer was a Mr. Thomas Chaloner who was a cousin of Sir Thomas and this was made about 1595. Soon afterwards works were also commenced at Grosmont and Sandsend, the latter being most successful, due to the great depth of the alum shales here, about 90 feet, and also the easy transport by sea from the nearby beach.

The industry was taken over by the Crown early in the 17th century, and then leased to various contractors for working, but for many years it suffered from severe financial difficulties, mainly caused by inexperience in working the alum and deceptions by pretended experts. Eventually workmen were brought in from the Low Countries and by the 1630's the alum mines were being successfully worked.

The Crown's interest was given up in 1679 by Charles II, and the subsequent changes during the industrial revolution in the cloth trade etc., caused a bigger demand for alum, and an upsurge in the number of mines being worked. By 1769 16 alum works in Yorkshire were producing 5,000 tons of alum per year, and this was the highest the industry reached. Afterwards overproduction caused the closing down of all but the most important works. By 1815 only 3,000 tons were being produced and in 1846 production was down to 1,100 tons per annum. The industry finally closing about 1870 due to synthetic methods of production taking its place.

THE PROCESS OF MAKING ALUM

The shale was first quarried, then broken into small pieces and barrowed to the calcining heaps. There it was heaped into clamps similar to a pyramid in shape and composed of alternate layers of alum shale and brushwood. The heap was set on fire when about four feet high, then the piling up and calcining of the clamp went on simultaneously and in the case of large clamps lasted several weeks.

Next the calcined shale was barrowed into steeping pits filled with water to extract the sulphate of alumina. After standing for 24 hours the water was run off into a cistern, then conveyed into the next set of pits containing dry mine, until the specific gravity of liquor was reached. The liquor then ran in roughs to the alum house raw liquor cistern, afterwards to be boiled in large leaden pans, then run off into settling tanks and mixed with alkaline, (urine, kelp). Two hours were allowed here to deposit sediment, then the liquor was conveyed to coolers to be stirred, then left to crystallise. After four days any liquid was drained off and the crystals of alum which remained were put into a dreyning tub and washed before being dissolved in water and boiled again. The saturated liquid was now poured into roaching casks to crystallise and after 16 days, holes were bored into the sides to allow the escape of any 'green liquor' or mothers. The alum was then laid in the storehouse for despatch in sacks by sea.

APPORXIMATE DATES OF PRINCIPLE ALUM SITES

| Belman Banks, Guisborough | 1600 to late 1860's |
| Newgate Bank, | 1600 to 1620 (about) |
| Slapewath, | 1600 to 1620 |
| Spawood, | 1600 to 1620 |
| Asl Holme, nr. Old Mulgrave Castle | 1600 to about 1705 |
| Holmes, Mulgrave | 1684 to 18th century |
| Sandsend, | 1600 to 1671 |
| Rockhole, | 1600 to 1620 |
| Selby Hagg, Skelton | 1612 to 1776 |
| Saltwick, Whitby | 1649 to 1812 |
| Dunsley | 1649 to 1665 |
| Boulby | 1649 to 1871 |
| Lingberry (Loftus) | 1649 to 1863 |
| Peak | 1649 to 1862 |
| Carlton | 1680 to 1774 |
| Kettleness | 1728 to 1871 |
| Stonop Brow | 1752 to 1817 |
| Thimbleby, Osmotherley | 1765 to 1772 |
| Littlebeck, Thornhill | 1754 to 1809 |
| Godeland Banks, Littlebeck | 1765 to 1805 |
| Eekdaleside, Old & New Works | 1764 to 1817 |
| Ayton | 1765 to 1771 |

concluded at the foot of page 10
TRAMCAR RELICS in the North (part 2)
George Hearse

In view of the large amount of interest generated by the inventory of tramway relics still in position, we publish a second list of relics preserved and still in situ, or tramcar bodies put to other use.

Relics in store for the Regional Open Air Museum.

Section of round wire with part of soldered-on ear, Newcastle 1901.

Overhead linesman's half gallon solder pot, circa 1901.

Two 18" mechanical clinch ears for 0000 round wire, circa 1911.

Splicing ear for round wire, Newcastle circa 1910.

Ditto Mid-span, to repair break in wire.

Newcastle section insulator for round wire, circa 1910-14.

Prescott air-gap section insulator for grooved wire 1920-30.

Bonser crossing and insulator, circa 1930-35.

Modern B.I.C.C. section insulator, grooved wire.

Newcastle type double feeder ear, circa 1920.

Two bridge hangers, steel and brass, 1900.

Line contact to energise electrically-operated tramway point, from Great North Road, Newcastle. In use 1932-5.

Short flower pattern bow string bracket arms for centre poles in street from Northumberland Street, Newcastle in use 1901-21. 4 in stock.

Double deck tramcar, Sheffield Corporation but body similar to tramcars on Gateshead tramways, and equipment similar to Newcastle. In store at Consett, Co. Durham.

Single deck tramcar, Grimsby & Immingham No. 26, was Gateshead tramways No. 10 until August 1951. In store at Consett Iron Co.

Relics still in situ, or put to other use.

Overhead wire rosettes are still to be seen on buildings in Blackett Street, Newcastle, City Road bridge abutments east of Holy Jesus Hospital, and at Byker car sheds.

Section box inscribed "Corporation Tramways 1925" can be seen in New Bridge Street near Cranhill Road, other boxes exist in Barrack Road, Scotswood Road, Elswick Road, and Shields Road, all in Newcastle. A further example is still in use in Dean Road, Depot, South Shields.

Short pole bases can be seen in New Bridge Street near Manor Station, Newcastle, and one original 1901 pattern still exists near Delaval on Scotswood Road.

An Imperial Tramways pole base is understood to exist at Norton-on-Tees, and a complete pole of later vintage in Stockton High Street.

In Newcastle some span wires with ears still in position can be seen on Elswick Road (abandoned 1943) and Scotswood Road (abandoned 1950).

An early example of a section breaker and boom operated frog still exist in the old motor school at Byker Depot, now used as a clothing store.

Near Colwell on the A68 road right hand side facing north, part of a 5½" Newcastle tram pole complete with finial of 1913-14 vintage, has been used to make a gate post.

At Richardson's Cycle Shop in Hood Street, Newcastle, the 900° staircase from Gateshead tramcar No. 26 has been utilized as a staircase to the basements.

Turbinia Works sidings, Wallsend, tramway pattern bracket arms and bowstring hangers from disused electric railway into works. Origin not known.

Byker Depot, Newcastle. Tramcar type Westinghouse motor (plus one kept spare) for body shop traverser.

Trackwork in main yard, double line with curves into body shop, etc. body shop base.
contains track on which body bogies (ex tramcar) are still used for bus bodies. One pit filled in about 1925 with remains of No. 251, destroyed in smash about 1924, and cemented over. Six roads remain covered up in main bus garage, almost new track and two points are exposed at south end of machine shop, one road down entire machine shop with point at north end. Three tracks remain in former overhead building and four roads with one point in old truck shop. A single line tramway can still be seen running from the south exit of Byker Depot into the Fossway and joining Shields Road, also point still visible and short line running into Union Road.

Manors, Newcastle, removal of traffic island has exposed about 20ft. of rail from siding laid in 1911 to front door of Tramway Head Office, this was for the pay or cash car and was not for passenger use.

Westerhope, Northumberland, two short lengths of track exist where public roads cross former reserved track tramway.

Lemington-on-Tyne. In hot weather rail can still be seen on bridges crossing railway, line diverted 1922 on more direct route.

Tramcar bodies put to other uses.

Gateshead No. 8 (1) Humbelton Hill, Wooler, old P. A. Y. E. car of 1901-25.

Gateshead 2, 19, and two Milnes cars of 1901, then houses north of Felton.

Gateshead 14, Market garden, White Mare Pool.

Gateshead 73 ex Newcastle 80, garden shed, Sunniside.

Tynemouth No. 2, garden shed, Heddon-on-the-Wall. (also ex Burton & Ashby)

Tynemouth No. 15, outbuilding on farm, Fenwick, Northumberland.

Carlisle, saloon off Preston 1912 car, Scotby Station.

Carlisle, two bodies near Dalston.

Imperial Tramways Water car and snow plough, Wilderness.

Sunderland No. 1, Barnes Park, Sunderland.

Newcastle Works Car No. 108, rest on a pile of old timber at West Moor.

A great many bodies are known to exist and efforts are being made to identify them. Further lists will follow.

A PENCIL MILL at Cronkley Scar

Frank Atkinson

Not far from Cauldron Snout the River Tees runs past Cronkley Scar, on the Yorkshire bank, and here on the isolated bleak river-side stand the remains of a curious small waterpowered works: a pencil mill.

The word pencil in Durham dialect meant a slate pencil for more strictly, a soft shaly pencil used for writing on a slate), whereas a lead pencil (such as one uses today on paper) was called a vine or a keelvine. From this it will be realised that the pencil mill was making use of local shale. Indeed, at this point of the Tees valley is a small inlier of pre-Devonian rocks thrust up by heavy faulting.

It would seem that this particular fissile rock was ideal for the purpose and a small mill was built here presumably during the first half of the last century. A waterwheel was powered by the slight diversion of a small stream flowing down the Scar and into the Tees and the lead can still be traced.

The building is only about 50 feet long, built parallel to the river and divided into three rooms: a large central one, with a smaller one at each end. The upstream small room would seem to have housed the waterwheel and nearby lie a pair of small millstones. One imagines that the central room housed the workshop and perhaps the other small room served as store. These can only be tentative deductions at this stage, for the building is down to ground level and no records of its actual operation are available.

We do, however, have a slight reference in the Strathmore estate papers to the Pencil Mill Quarry. In 1874 a proposal was put forward for the lease of the Quarry for £10 per annum, and a royalty of 1/14 of the net value of the pencils at the Mill. (The pencils were to be delivered to wholesale dealers in cases holding 24,000 pencils, at 2s/9d per thousand). Later, in 1882, a rent of £5 per annum was discussed.

This Pencil Mill (variously referred to as of Cronkley Scar or Widdy Bank), despite the discussions about lease in the 1870's and 1880's, was out of use when Cudworth wrote his "Holiday Guide to Darlington" in 1890. Very little is known about its operation, through perhaps some 17th century Cyclopaedia contains a description of the manufacture of what was doubtless once a popular product. We have not yet identified any such account. Can anyone help? A careful excavation might also help to elucidate the operation of the Mill, but more documentary or historical evidence ought to be adduced before excavation begins.
TEESIDE INDUSTRIAL ARCHAEOLOGY GROUP

Summer Programme - 1968

Thursday 25 April
A.G.M. and public lecture on "The Growth of the Railway System in and around Teesside" given by Mr. K. Hoole in the Dorman Museum, Linthorpe Road. A.G.M. at 7.15 p.m. Lecture at 7.30 p.m.

Sunday 14 April
Excavation of the Boulby Alum Works; certain parts of the site will be more fully opened to check method of construction, dimensions, and the nature of the production processes c. 1850. Rendezvous at site, grid ref. NZ/759194 (approach along cliff from Boulby hamlet) at 11.30 a.m. Work normally continues until 4.30 - 5.0 p.m.

Saturday 20 April to Sunday 5 May.
Rosedale: excavation of a medieval glass-kiln organised by the Universities of Sheffield and Leeds. Assistance from members of the Group welcomed at any time. Equipment provided, experience not essential. Grid Ref. SE/745932.

May (date to be fixed)
Greatham: recording survey of a nineteenth century salt-well rig organised by the Recorder.

Sunday 30 June
(Weather permitting)
Stockton: photographic survey of area due for redevelopment between High St. (E. side) and River Tees. Assistance particularly requested from members with suitable cameras (especially 35 mm.).

Members may also be interested in a weekend course on the Dialect of the Yorkshire Fishing Industry arranged by the Dorman Museum for 10th - 12th May (details from the Museum). It is also hoped to arrange a visit to an old-established ironworks, and a survey of the Vulcan Foundry.

Members are requested, if possible, to let the Secretary or Field Secretary (from whom further details may be obtained) know in advance which projects they hope to assist with.

Secretary: Mr. R.L. Pickles
Field Secretary: Mr. S.K. Chapman,
15 Cromwell Terr., 26 Springfield Avenue,
Thornaby, Teesside. Brotton, Saltburn.

INDEX to Bulletins 1 to 5

Alum Industry 5, 11
Atkinson, F. L 3, 8, 11; 2, 2; 3, 1; 5, 17
Beamish Colliery 3, 2
Castleside 5, 2
Chaldron wagons 3, 24
Chapman, K. 3, 24; 5, 3, 11
Chapman, N.A. 4, 16
Chapman, Mrs. V. 3, 7
Cleveland Ironstone 4, 16
Cleveland waddle fan 3, 24
Coal workings 2, 15
County Durham sites 1, 3
Cramlington hangar 5, 2
Crathorne Mill 5, 8
Crockett, D. 2, 1
Cronkley Scar 5, 17
Durham (County) sites 1, 3
East Herrington 1, 9; 3, 3, 6
Farmsteads 2, 16; 3, 7
Famous North Easterners 3, 26
Gateshead 1, 1
Grid references 1, 10
Griffith, E. P. 4, 12
Hay, T. T. 4, 22
Healeyfield smelt mill 5, 2
Hearse, G. 4, 20; 5, 14
Hett 2, 15
Hexham 4, 12
Horse gin 1, 9; 2, 10
Hughes, M. 2, 16
Icehouses 4, 12
Ironstone 5, 3
Killhope 1, 1
Millstones 2, 22
Museum, Regional 3, 2; 5, 2
North Easterners: famous 3, 26
Northumberland farmsteads 2, 16
Northumberland sites 2, 2; 3, 6
Pencil Mill 5, 17
Port Mulgrave 1, 10; 5, 3
Recording farmsteads 3, 7
Regional open air Museum 3, 2; 5, 2
Rowley station 2, 2
Ryhope Colliery 2, 8; 3, 2
Ryton-on-Tyne 1
Seaham Harbour 3, 3, 24
Snow fence 4, 11
South Hetton Colliery 2, 10
Stanhope & Tyne Railway 4, 11
Stoyel, A. 2, 15, 22
Teeside 5, 18
Tynemouth relics 4, 20; 5, 14
Tyneside Group 5, 2
Varndell, R. 2, 1
Ventilation 4, 16
Waddle fan 2, 8; 3, 2, 24
Walbottle project 5, 2, 9
Warden Law 3, 3
Watermills 4, 22
West Boldon 3, 2
Wheeler, M.G.C.W. 1, 1; 4, 11, 20
Winlaton chain shop 3, 2
Yorkshire Alum industry 5, 11
Yorkshire sites 3, 27; 4, 1; 5, 2

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