WARWICKSHIRE Industrial Archaeology Society

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NEWSLETTER

THIS ISSUE

EDITORIAL

This edition of the Newsletter appears a month later than the heading date of June 2004, so that an abstract of the May meeting could be obtained from the speaker, Mike Rumbold. The delay has also meant that it is possible to present a programme of speakers through to December 2004.

I trust that this delay has not caused any inconvenience or confusion to members. The next edition of the Newsletter will appear on schedule in September 2004. Members are reminded that, as usual, there will be no meeting in August.

Mark W. Abbott

Erratum

The reference to the Black Bridge, in the article about Oxford Canal Bridge 129 in the March 2004 Newsletter, was incorrect. The footbridge over the Grand Union Canal behind Flavel's works, is of course known colloquially as the Ladder Bridge. My apologies for the error and thanks to Roger King for pointing out the mistake.

Mark W. Abbott

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NAPTON ENGINE

Water supply was often a problem for canal companies, a point exemplified by the summit pound of the southern section of the Oxford Canal, between Marston Doles and Claydon. This pound was dug deeper than usual to provide a reserve of water and three reservoirs were built: Wormleighton, Clattercote and Boddington, to replenish the water lost through the locks at Napton and Claydon. There was also a pumping scheme to back pump water up the Napton lock flight.

This scheme is little known and rarely mentioned in the Oxford Canal company records. However, much can still be traced in the field and it was these remains that Peter Chater, John Willock and I set out to investigate on the last Sunday in March.

Water was taken from the canal immediately below Napton Bottom Lock at GR458607 and conveyed by surface feeder to a point near GR463600. At the point the feeder crosses under the minor road between Chapel Green and Napton Holt; GR461601, it was observed to contain a strong flow of water.

Beyond the road, the course of the feeder is clear around an area of marshy ground, but eventually becomes indistinguishable from a small stream flowing in the opposite direction. Somewhere hereabouts a tunnel, some half a mile in length, took the water to the pumping engine at

Continued on page 2

SOCIETY NEWS

Programme.
The programme, through to December 2004, is as follows:

July 8th
Society AGM and Members' Contributions.

August
No Meeting.

September 9th
Mrs. T. Demidowicz: *The Birmingham Jewellery Quarter.*

October 14th
Mr. D. Fowler: *The History of Cheese and Cheese Making in Warwickshire.* Includes cheese tasting!

November 11th
Mr. J. Boynton: *The London and Birmingham Railway.*

December 9th
Mr. J. Burton: *Ribbon-weaving and Hat-making in the Bedworth Area.*

A programme for the meetings from December 2004 into the New Year, will appear in the September Newsletter.

Web Site
Members with an Internet connection are reminded that the Society has a web site at www.warwickshireias.org.

The site is updated at least quarterly, with each Newsletter, and details of forthcoming meetings may also be found there. Occasional features on other aspects of Warwickshire industrial archaeology are also posted, most recently some pictures of the remains of the Cherry Orchard brickworks site, before its recent clearance. Other contributions are welcome, but please check these are in the correct format before submission.

Meeting Reports *by Arthur Astrop*

March 2004 Dr. Alan Cooke

The Geological Story of the Warwickshire Coalfield

The Warwickshire coalfield, once the world's thickest seam, was laid down some 300 million or more years ago, when our County was lying a considerable distance south of the Equator! Over millennia, continental shift and drift has brought the coalfield to its present position on the globe but its seams were, in fact, the product of tropical rainforest-type conditions.

This fascinating slant on our County, and in particular on the coal fields of north Warwickshire, was the starting point of Dr Cooke's talk to the Society at its March meeting. The coal field stretches from approximately Tamworth in the North to Berkshire in the South, and as a result of the continental shift and drift mentioned above it has a number of major discontinuities in its run. Consequently, some seams are relatively close to the surface and others lie very deep, sometimes too deep to mine. Moreover, the discontinuities in seams mean that they can suddenly die out and, just as suddenly, can reappear some distance away.

Dr Cooke traced the exploitation of the coal field from its earliest days, when the available technology meant that virtually only the surface of the seams could be worked. Even in the 18th and 19th centuries, when pits could be dug to greater depths, the yield was still comparatively small, and the industry consisted of large numbers of very small workings. Flooding was a constant problem, and even the technological leap of Newcomen's atmospheric pumping engine was a mixed blessing. As Dr Cooke pointed out, these engines were so inefficient that sometimes they almost consumed coal at a greater rate than it could be mined!

It was the 20th century, and its quantum leaps in mining technology, which allowed the Warwickshire fields to be exploited properly for almost the first time. Automated and mechanised coal-cutting together with hydraulic pit props allowed pits to be dug deeper and seams to be worked virtually 100 per cent. Other industries grew up close to the pits, some very large and with considerable workforces. The Stockingford Brick & Tile Works, for example, occupied a very large site, had its own transport system connecting to main routes, and employed 1,400 people.

The decline of the coal industry is, of course, recent history and although mining as such has effectively ceased there are still massive deposits beneath Warwickshire lying untouched. Dr Cooke hinted intriguingly at modern research into extracting methane from the coal, a process which would provide an energy source without the need to bring the coal itself to the surface.

Dr Cooke's main thrust, as the title of his talk suggested, was on the geological aspects of the Warwickshire coal field, which included the consequential effects of mining on surface topography. From time to time, old mine workings have caused sudden and serious subsidence in some parts of the County, and as a consequence dreadful 'planning blight' and 'inability to sell houses' have grievously affected some areas. It is only in relatively recent times that comprehensive, minutely detailed and highly accurate maps of mine workings in the County have been produced, and are now freely open to all for inspection.

Napton Engine continued:

GR467591. Although the tunnel appears on large scale Ordnance Survey maps of the 1930s, its entrance is not now visible. This map evidence shows the feeder apparently intercepting the surface stream near the tunnel entrance, presumably to augment the supply of water.

The site of the pumping engine is still obvious, at the end of a short arm off the canal, although the building remains have been heavily adapted for agricultural use. The original engine was a Newcomen design, installed about 1790 and in operation by 1792. In 1800, Boulton and Watt produced plans to replace it with one of their own 48 inch cylinder engines, but using parts of the original installation. However, this was probably not carried out as eventually only £150 was spent on improving the engine.[1] It is not known when the engine ceased work, although an Oxford Canal survey of 1840 notes the engine as "pulled down".

Anecdotal evidence points to a cottage on the site too, demolished in the 1970s. There is also a well, which is rather elaborate for a domestic water supply.

Beyond the engine house it is possible to trace the dry feeder, brick lined in places, to the nearby road. This it paralleled for a short distance, before heading off across the fields to reach the Priors Marston road at Marston Doles. It eventually emptied into the canal just above Napton Top Lock at GR465583, having passed under the garden of the canal side cottage (once a public house), although a modern back pumping outlet has obliterated the outfall.

Mark W. Abbott

1. Andrew Jim *Canal Pumping Engines* Industrial Archaeology Review XV 2 Spring 1993

Troth and Hillson

April 2004 Ken Chapman
Troth and Hillson: The Langley Plough Makers

Troth & Hillson was a Warwickshire firm of agricultural engineers which started life in the 18th century and survived well into the 20th, not finally closing down until 1964. The phrase "quite simply the finest ploughs ever made" was not an advertising claim dreamed up by T & H. It was the unsolicited opinion of plough users themselves, and they were all shrewd professional farmers given neither to making hasty judgements, nor to saying anything they didn't mean.

Ken Chapman has made an intensive study of Troth & Hillson, the Langley ploughmakers, and set the scene for his talk by showing a family tree to explain how successive generations of Troths, Troth-Hillsons and Hillsons led the firm and developed both the range and the designs of its products. The use of a family tree as a starting point was particularly helpful because, like so many 'dynasties' of the period, there was a propensity to replicate the same forenames, generation after generation. (In this case, there seemed to be a disproportionate number of Williams!).

Originally, T & H started by making two basic types of ploughs, the long-tail and the short-tail, suitable for Autumn and Spring ploughing respectively. Gradually, however, the Company widened its range and eventually three models were to become both the foundation and the key to its continuing success. Essentially, it made the type A1, the No 60 and the No 80 ploughs, each designed to handle specific types of soils and conditions, and over the years many thousands of each type were built. The T & H plough was distinguished by its clever combination of wood and iron construction, a design which exploited the unique qualities of each material to their maximum. Photographs and drawings of T & H ploughs shown by Mr Chapman also illustrated the beautiful lines of the wooden components, which were elegantly curved, tapered and shaped to make them things of beauty as well as of utility.

It was a proud boast of T & H that everything needed to manufacture their ploughs was made in-house, except for the paint! Great attention was paid to the selection and seasoning of the timber used for the wooden parts of the plough. Ash and pear wood predominated, and was taken only from the butts of pollarded trees and seasoned for two years on site before use. The potential of the Langley iron foundry in which T & H cast the metal parts for its ploughs was also progressively exploited. Iron parts for ploughs manufactured by other companies were made at Langley, and over the years T & H widened its own range of cast products. These eventually included gratings, fire backs, fencing, manhole covers and guttering. Iron garden seats were also produced in the foundry, and T & H showed examples of the latter both at the Great Exhibition of 1851 and, 100 years later, at the Festival of Britain in 1951.

T & H also made horseshoes, and the Company was very proud of the fact that its products had been fitted to the hooves of winners of the Grand National in three successive years, namely 1884, 1885 and 1886.

An Early Wooden Wheel

Although not an avid railway enthusiast, I found the March 2004 edition of the *Railway Magazine*, which contained a special feature commemorating 400 years of Britain's railways, particularly interesting. In the Prehistory section, (1604-1803), of the feature article, a very early flanged wooden railway wheel was described and illustrated.

This split, and subsequently repaired, elm flanged railway wheel, was found by my maternal Great Grandfather in about 1900, during exploration of some very old mine workings at Caughley, Shropshire. Its precise age has not been established. However, Dr. Michael Lewis, in his work, *Early Wooden Railways*, published in 1970, tentatively ascribed to the wheel a date of pre-1729, and possibly even seventeenth century! It should be stated that the Coalbrookdale Company started to produce cast-iron flanged wheels in 1729, and these probably supplanted wooden ones quite rapidly. Several other early Shropshire flanged railway wheels were once known, but these seem to have disappeared over time, leaving the Caughley wheel the sole, and possibly the oldest, example extant.

The Transylvanian mine wagons with flanged wooden wheels, preserved in the museums of Berlin and Bochum, also described in the *Railway Magazine* article, are of a much later date than their English counterparts. Very early European mineral railways used a variety of curious guiding systems, but seemingly not the flanged wheel. Born of the humble coal mining areas of Nottinghamshire and Shropshire, the flanged railway wheel was a very simple, but elegant English invention, that went forward to conquer the rest of the world!

J. F. Willock

The Great Works at Weedon

May 2004 Mike Rumbold

Some History of the Weedon Royal Ordnance Depot

The most prominent structures at Weedon are the early nineteenth century Stores Buildings of the former Royal Ordnance Depot. Surrounded by a high brick wall, the eight original Stores are arranged in two lines on each side of a branch of the canal. The cut between the main channel and the Depot has now been filled.

When in 1803 war broke out with France again, it was realised that the storage of military supplies near to the coast was no longer prudent, and plans were made to set up a depot for the storage of arms and ammunition near to the centre of the country. A site in Weedon Bec was chosen, because of the proximity of the Grand Junction canal, which had reached Weedon in 1796, and Turnpike. An Act of Parliament of 1803 provided for the acquisition of 53 acres of land and the government later extended their estate to about 150 acres.

The military branch canal entered the Depot under a portcullis, set in a building known as the East Lodge, forming part of the surrounding wall, and still standing. At the west end there is a similar Lodge and the canal originally extended beyond to serve the Magazine, used in the early years to store gunpowder brought in by canal. The Magazine storage buildings, each separated from the other by a building filled with earth, can still be seen from the high ground within the Trading Estate off the Daventry Road (A45). From here can also be seen a ninth Storehouse standing isolated to the west of the main enclosure. Intended to relieve pressure on the existing Clothing Depot at Pimlico, caused by the South Africa War, it was completed in 1900, just as that War ended.

The Trading Estate stands upon the site of another of the former military establishments of Weedon, The Barracks. Built at the same time as the Depot, this comprised a group of buildings arranged about a Barrack Square. Some of these had stables on the ground floor, as the purpose of the Barracks was to house a Troop of Artillery and in those days, guns needed horses to pull them. Between the two World Wars, the Barracks became the Army School of Equitation, and an extensive indoor riding school and further stables were constructed. The Barracks was demolished during the winter of 1955-6.

The other Government buildings in Weedon have led to one of the local legends. Constructed to house the Storekeeper and other principal officers of the Depot, these were three well-proportioned white brick buildings with connecting garden walls, presenting an imposing frontage to the east resembling a single structure. This led to the name, The Pavilion. Two of the buildings were divided into two dwellings, so that provision was made for five officials in all. These were civilian appointments of the Board of Ordnance.

It became popularly understood that these buildings were intended to house the King if there was a Napoleonic invasion, but there is ample evidence that this story is a myth. They were later used for the Officer's Mess of the Riding School. During the Second World War, together with the Barracks, they formed part of the Royal Army Ordnance Depot, when all parts of the military estate, together with other buildings in surrounding parts of the County were dedicated to the provision of weapons to the Army. The Pavilion buildings were demolished in the 1970s and replaced by Regents Park housing estate.

The Royal Army Ordnance Corps moved out of Weedon Depot on February 16, 1965. Following a period of use by the Ministry of Supply, the surviving Depot Storehouses passed into private hands in the 1980s and are now occupied by a number of small companies. These buildings and the perimeter wall are Listed Grade II*.

In late 1995, the Depot was bought by Cavalry Centre Limited, who applied for planning permission to change the use to an integrated heritage, tourist and commercial centre. Following a Public Inquiry, permission was granted in May 2000.

WARWICKSHIRE INDUSTRIAL ARCHAEOLOGY SOCIETY

www.warwickshireias.org email: WIAS@photoshot.com

CHAIRMAN	SECRETARY	TREASURER
M. J. Green	D. M. Crips	M. W. Abbott
Argyll 2(b) Union Road	27 St. Nicholas Church Street	53 Stowe Drive
Leamington Spa	Warwick	Southam
Warwickshire	Warwickshire	Warwickshire
CV32 5LT	CV34 4DD	CV47 1NZ
(01926 313782	(01926 401072	(01926 813155

AFFILIATED TO THE ASSOCIATION FOR INDUSTRIAL ARCHAEOLOGY

Credits

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Additional material: Arthur Astrop
John Willock
Mark Abbott
Mike Rumbold

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