



# NORTHAMPTONSHIRE INDUSTRIAL ARCHAEOLOGY GROUP

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## NEWSLETTER

ISSUE 102 - 'SPRING' 2007

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It hardly seems possible that another Newsletter is in the offering and with it another change in its layout and size. With the advent of the postage changes and the costs now of sending out the A4 format with a large 2<sup>nd</sup> class stamp, I took the 'executive' step of producing a draft A5 booklet format for the committee to comment on. As a result it was favourably received and for the first time since the NIAG Newsletter was produced the format and size have been changed. We hope you will like it - the content style remains the same and the format of reports will not change. So, as they now irritatingly say, 'enjoy'.

Our winter programme has now drawn to a close and with this mailing is the summer programme of walks and places of interest to visit on a Friday evening, with just a few Saturday's thrown in. The committee hope to see you on these evenings and we hope that there will be something suitable for everyone, perhaps a smattering of members who haven't been on the walks before.

I have to say that in recommending the watching of *The Search* it became a search to find out when the programme was being shown! The Time Team programme devoted to the Wicken dig, was to my mind rather disappointing in that not much was shown of that marvellous dovecote which some of us visited last summer (*report issue 101*).

It is also good to see that Spring is in the air, and with it 'the bi-annual drag of moving the clocks forward, and we still have to 'faff' about with the watches when we cross the channel - hell if you go just after changing the time.

After many years hard wear the committee decided to purchase a new display board which members will have seen it at the March meeting and I have now volunteered to take on the job of publicity for NIAG. We will use this to advertise the Group and as a posting board of what we have been up to on the summer walks when we all get together again for the winter programme.

*Jane Waterfield*



## OBITUARY

### BOB LEWIS

Bob, a member of NIAG from its early days in the 1960s (when we had lectures from the likes of Rex Wailes, of wind and watermill fame; Professor Simmons of Leicester known for his research in railway history, and Michael Rix, who first put the term "Industrial Archaeology" in print) died on 25 February 2007. Bob and his late wife, Mary, attended nearly every indoor NIAG meeting and brought their sons Tom and Jim to many of our out-of-doors meetings. Tom still remembers NIAG's early visit to Blists Hill: a photo of that visit was shown to current NIAG members at last October's meeting on "Open Air Museums".

Although in recent years we only saw Bob occasionally at our evening meetings, he was a regular participant in all day-time courses at the University Centre having

a bearing on industrial archaeology. If reference was made to a document with an obscure word that no one in the class, including the tutor, knew, the next week Bob would come with an explanation found from his large and varied collection of books.

Bob had many interests. I knew that railways, especially steam railways, had a fascination for him and after Mary died he engaged in a great deal of rail travel. Whenever I met him he would regale me with his latest experiences such as journeys on the Dockland Light Railway and a complete tour of the Croydon tramway system soon after it opened. What I did not know, until the address at his funeral on the 14<sup>th</sup> March at Great Houghton, was that he had a very wide knowledge of pubs and had an extensive knowledge of, and eclectic taste in, real beer.

To many, Bob must have seemed an unassuming man, but he was representative of many members of NIAG who we do not see very often at our meetings but take an interest in our activities as reported in the Newsletter - and every so often share some of their own experiences with us. Bob will be remembered for his long-standing enthusiasm and support of NIAG over all the years since those early beginnings.

*Geoffrey Starmer*



## LAST OF THE 2006 SUMMER WALKS

### **Wellingborough Walk - 14<sup>th</sup> July 2006**

About 20 of us met on a pleasant summer's evening to walk around the heritage of Wellingborough. Our host Jon Paul Carr born and bred in Wellingborough was our guide for the evening.

A great deal of imagination had to be used as many of the buildings had either been taken over for other uses or had disappeared. We walked through the car-park of Croyland Abbey which at one time had been attached to Crowland Manor in Lincolnshire. The abbey, after dissolution became a farm house, it was then rebuilt in the 1860's by Edward Sharman a local architect whose ancestral home was Swanspool House. His father owned the local shoe factory. When Edward died in 1914, the farmhouse became the home of John Ford Wallis who was the landlord for the Hind Hotel.

As we walked through to Swanspool we learned that a Mr Stevens had opened a Zoo in the grounds of his house. Was that a roar of a lion ..... no traffic.

We learned that the Golden Lion dated from 1540. In the 17<sup>th</sup> century it was lived in by a Yeoman farmer. In the 19<sup>th</sup> century it passed into the hands of a local printer, Mr Wilkins, who lived and worked here. It became a pub in the 1860's and also was the first place in the town that tea, known as 'Chinese Soup' was served to visitors. Swanspool was built about 1780 when Swans were kept by the

Monastic Grange. A shoe factory, Silk mill and a brewery house were all touched on as well as the 'Joto Pages' fountain. James Page owned a leather tannery on the Mill Road who specialised in dressing the leather for use in Daimler Motor Cars. He became a local councillor on the Town Council and served between 1902-03. The fountain was presented to the Town and it first stood in the Market Square and then was moved to Swanspool Gardens in 1925.

The Brewery House was built in 1820 for the Dulley family, local brewers. This became known as the Chequer board house. Dulleys was established about 1805 and closed in 1920.

In later years it became the home of Mr Cox, the Brewery Manager. Apparently he owned a pet Raven called Jack who became something of a celebrity as he wandered around the town, stopping at local butchers for scraps. Mr Cox, a staunch Liberal, taught Jack to say 'No Tariff Return' 'No Tariff Return' and the bird then shouted this out as it stood on the steps of the local Conservative Club!



*Dulley's Baths showing the proposed main display area.*

We moved into Dulley's baths. Once a brewery, it became the Baths, was closed in 1914 and used as a Military store during WW1, it then came up for sale in 1918 - £1000 was offered to the Council, which was refused, and brought by George Cox, who changed the name to Castle Works and shoes and boots were then

manufactured until 1994 when the factory moved to Westfield Road.

The building was then taken over by Winifred Wharton and will be home to the Wellingborough Museum sometime during 2007. We were taken over the whole building which should be impressive when finished.

Moving on round the town we were given an extensive history of various buildings as we passed them, including the first Saxby's Brothers Pork Pie Shop. We also learned that the electric organ which once stood in the Cinema is now installed in Weavers School Hall.

Our circular walk continued to the Market Street which has had a Market Charter since 1201



*Near Market Street*

We ended at the Tithe Barn which dates from the early 1400's and was used for the storage of tithes paid to the Manor of Crowland.

*Photos © JW*

*Jane Waterfield*



## WINTER PROGRAMME 2006/7

### **The History of Clockwork Toys - 1<sup>st</sup> December 2006**

Well over 30 members came to this pre-Christmas meeting with a nostalgic theme but the title was a misnomer. There was no chronological order to the talk and no reference to automata, where at first each one was usually unique but by the late 19<sup>th</sup> century were produced in larger numbers, and the subsequent evolution of clockwork toys which were produced in hundreds and usually thousands of the same design. Also it was not a comprehensive coverage of the types of clockwork toy, since there were no examples of clockwork trains, boats, just two road vehicles, and only one aircraft. There was no reference to the type of clockwork toys categorised as “track toys”, where a ‘vehicle’, often a representation of a railway locomotive but sometimes a road vehicle, moves along a track which has trips or other devices to actuate changes in direction.

However, John Bishop gave us a very entertaining evening showing numerous items based on human and animal actions, from his very extensive collection (or perhaps we should say collections, because he collects a great variety of subjects, ranging from medals, lead soldiers, waterline ship models, John Bull printing outfits, to Hornby and Bassett-Lowke trains, although we did not hear much about the latter). After showing some examples of these other categories of toys, he introduced clockwork toys with a good example, in tin-plate, of a billiard player who potted a ball-bearing into a pocket. It was an excellent demonstration of the use in clockwork toys of ingenious mechanisms, simple for mass production so that they could be sold cheaply - at the time of their manufacture. (One could have bought this one for a shilling and three pence from Gamages in Holborn in 1906; in 1994 a slightly better version, with an Archimedean screw lifting the ball back on to the table for the next shot, fetched nearly £400 at auction!) Several times during his talk John Bishop referred to the very high prices now fetched by some of these toys, especially when they had a limited production run. He cited the 0-gauge railway “Coleman’s Mustard” van where Hornby had not obtained permission from Coleman’s to use their name and style and so its production had to be stopped after only a few had been made. Interestingly, he did not point out that clockwork toys with their original boxes in good condition could fetch almost double the price of an unboxed example at present-day auctions - and was quite careless with the few boxes he had!



Of the 520 or more mechanical toys he had in his collection, Mr. Bishop brought along about 60 to demonstrate the different types. Although the motive power for most was clockwork, he showed a few, made in Japan from the 1950s, which used electric motors where there was better control. Most of the toys were of tinplate although some, notably animals such as growling tigers and tossing bulls, made by the German firm of Schuco in the 1930s, were covered in felt to imitate fur. Another variation was to have heads of rubber so that mouths could open to yawn, sneeze, or make amazing grimaces as with the “Crap Shooter”. Each of those attending this talk will have their own favourites from the wide range of toys shown to us. My selection includes the “Piggy Cook” who tipped sauce into the pan and then tossed a pancake; “Bizzie Lizzie”, made in

Germany from c.1905 until 1925, who moved a cleaner backwards and forwards (One of these sold for over £500 in 1993); the reading fur-covered bear which flicked over the pages of the book; the noisy “L’il Abner” set of piano and player, drummer, and juggling “Elvis” type figure; and the extremely loud drummer marked “Made in Britain”. How long could a long-suffering parent put up with this before stamping on it? No wonder many of the huge amount of clockwork toys made, never survived to become collectors’ pieces.

We were very fortunate in seeing many of the toys in action. This is quite unusual and was very generous of Mr. Bishop, particularly as he told us that one or two were now broken because they had been demonstrated a number of times. He said it was virtually impossible to repair them because to get at the mechanism, one had to open the tin-plate “body” which was held together by folded over tabs which were liable to break if unfolded. This led him to talking about the dangers of tin toys for small children. We were shown an example in Popeye, holding suitcases, where the wheels were held in position by clenched nails, and in a tin-plate representation of a “Hurricane” fighter aircraft where on the underside, the edges of the tin-plate were razor sharp. One can see why the sale of tin-plate toys for children is now prohibited. They are still made for adult collectors but that is another story!

*Geoffrey Starmer*



## Members evening - 12<sup>th</sup> January

Steve Miles kicked off the evening with slides of his recent AIA trip to the Isle of Man last year. Barry Taylor continued with slides of maps and railways (all connected) and Judith Hodgkinson took us on a fascinating tour of Northern France and what 'popped up' while driving from not quite A to B.

### *Isle of Man*

The AIA's 2007 conference was based in Douglas on the Isle of Man. For the writer, this was his first visit, though for NIAG's President, this was partially a nostalgic return, after having previously been based at Jurby Airfield for Officer training on the island.

The conference had the usual mixture of lectures, AGM business, and of course, visits and tours. It was the latter that stood out, as a talk or lecture is never enough to prepare for the full experience of visiting a place like the Isle of Man. I had only ever heard of it either via IA, or in terms of biking - my brother being a biking enthusiast for one, and citing the TT races as a fantastic racing spectacle.

So which tours stood out? Silverdale, with its water powered mill, and water powered roundabout - surely one of the very few times you get to see fully grown adults pushing small children out of the way in order to get a ride. Well - not quite. The ride on the Manx Electric Railway (of 1893), I certainly felt for hours afterwards. The impressive Lady Isabella Wheel with its associated mine buildings. Making an impromptu visit to a C.19 model farm at Ellerslie, and seeing the look on the farmer's face as hordes of industrial archaeologists proceed around his yard. Actually he was very good about it. It even had a small narrow gauge railway still in place.

How about the exposed remoteness of 'Snuff the Wind' engine house, or taking over someone's garden and mill for afternoon tea at Kentraugh? The isolation of a derelict C.19 farmhouse at Creggan left an indelible impression, whilst viewing the collection of Celtic crosses at Maughold brought home the island's Celtic past. Sadly we didn't get much time to view the town of Ramsey fully, but there was a chance to see the Roman Catholic Church by GG Scott.

Point of Ayre had its two interesting lighthouses and remains of a fog warning station, whilst the quick visit to Jurby airfield included a welcome look around the large second hand bookshop there. Peel had a superb transport museum, including a genuine 3 wheeled Manx car. Peel also has the last working traditional Manx Kipper Smokehouse, of which tours can be taken. Be warned though, you will come out smelling of smoke (and fish). Peel used to be connected to the steam railway network, though lost it in the 1960s. The current section of the steam railway, which runs between Douglas and port Erin is a must to travel on.

The final day saw us split into groups, trolling around various Douglas public services, including Glencutchery waterworks, with its original 1930s belt-driven sand pressure filters - they appear to be the last in the UK to be used on a regular basis. Penrose Power stations and the town's refuse destructor were visited, as was

the Harbour Master's office - one group getting an unexpected surprise in the form of a minor emergency.

Other sights included the Douglas Horse tramway of 1876, with its characterful horses plodding and clopping along the seafront, and the restored Gaiety Theatre, which I unfortunately didn't get to see. Even sadder, I never saw a genuine Manx cat - all the ones I saw had tails!

The above are a few of my thoughts on the conference - if there are any of you who have still yet to sample the delights of the Isle of Man, then I can strongly recommend it.



*Peel*

© Terry Waterfield

### ***Another look at Northampton Railways:***

Barry Taylor presented a further look at the railways of Northampton, as a sequel to Jan Fajkus' unfortunately rain-damaged evening walk of early May 2006.

The walk had started at the long-closed Midland Railway station at St. Johns Street, and there had been considerable interest shown in the site, and its surrounding area. Barry illustrated the past by use of slides made from Goad large scale fire insurance maps of the 1900 era, which gave a graphic illustration of not only the station itself, but also the bonded wines and spirits, and skin warehouses, that existed in the various arches of the viaduct upon which the station was built. The surrounding streets, many of which have now disappeared, also gave glimpses of many old industries, including the original electricity generating station with its wooden cooling towers situated just to the north between Fetter Street and Bridge Street. Following in the tracks of Jan's walk, we then continued, using the maps, across the River Nene to the Midland Railway goods depot at Cotton End, revealing the once extensive railway sidings and warehouse facilities, together with Trenery's timber yards and Matthews coach building works with their canal-side wharves, now of course almost completely covered with recent housing developments. From this point onwards, slides taken by Graham Onley in the steam era of the 1960's were used to illustrate the railway system that once existed

between Bridge Street station, the “Far Cotton” triangle of lines surrounding the locomotive depot, and Duston West junction where the 1881 “new” line into Northampton crossed above the earlier route from Blisworth to Peterborough. Once again, most of this infrastructure has now gone, leaving just a disused single line of railway connecting to the Far Cotton depot just to the east of Bridge Street level crossing, and even this now seems to have finally been closed and is rumoured to be awaiting development as yet more housing !

### *‘Just by chance’*

A 10-day visit to a small triangle of Northern Spain last June (Bilbao-Gijon-Leon-Bilbao) was expected to be about art and architecture, with a couple of possible IA items relating to mining and transport. The reality turned out quite differently. A promising start in Bilbao produced a brand-new tram system, unknown even to Geoffrey. Guide books had indicated that the railways into Bilbao had had a serious shake up, reducing 5 terminus stations to two. Had the 1900s narrow-gauge FEVE station survived? It has, although in need of a little TLC. NIAG member Ron Whittaker had mentioned seeing a rather spectacular transporter bridge in Bilbao, which took a little finding, but was well worth the detour.

Once on the road heading west, rural Spain remained much the same as it was almost 40 years ago. The terrain is rarely easy and almost all farming in the north is on a small scale, so methods change more slowly. It *was* a surprise to see a horse and cart, but the driver had been in the bar with us, so it was a good way round the drink/driving laws. The ancient granaries on their head-height staddle-stones were everywhere, though few, if any, still in their original use.

The Mining Museum at Langreo near Oviedo made an interesting visit. The region of Asturias is still a very active mining area, with everything that suggests: hard lives, low pay and fairly depressing surroundings, but the Museum was filled with full size working models from Agricola’s *De Re Metallica*, including tread-wheel and water-driven blowing engine. Beneath the museum was a very good underground ‘mining experience’, with an excellent guide explaining methods of coal extraction.

A day in Leon gave an opportunity to explore the narrow gauge FEVE station - fortunately discovering that photographs were not allowed *after* we had taken them. A local guide book suggested that there was still one working watermill just outside Carrizo del Ribero, west of Leon, where we were staying. A horizontal wheel provided power to two pairs of stones, now grinding animal feed. Señor Sanchez made us very welcome, explaining that at 71 he was beginning to find 40kg sacks a bit heavy, and would probably retire soon. In complete contrast we then drove through two enormous windfarms, one with at least 112 generators.

And last but not least, just south of Aguilar del Campo we came across the head of the Canal de Castilla, begun in 1769 and taking 60 years to reach Valladolid, 80 miles away. Drawing its water from the Rio Pisuerga in a lush green valley, we

could almost have been at home. But its first lock - an elegant oval - was pleasantly unfamiliar, making the neat point that Spain is still chock full of surprises.



*Elliptical Lock, Alar del Rey, Canal de Castella, Spain*  
© Geoffrey Starmer collection



### **Dovecotes - 9<sup>th</sup> February**

Members battled through the worst winter night of the year to attend the excellent talk given by Collin Ray. A short over view of the history of dovecotes was followed by a profusely illustrated record of dovecotes in Britain, concentrating on Northamptonshire examples.

The ancestor to our domestic pigeons is the wild species known as the rock-dove, rock-pigeon, or common pigeon. The term dove and pigeon being interchangeable. Blue Rock Pigeons are native to much of Europe and Asia where their natural habitat is cliff faces which providing natural dark recesses in which to nest.

Pigeons were first bred in the Middle East sometime in the period 800 to 500 BC. The Greeks also kept pigeons and they are mentioned in Aesops fables. The Romans built pigeon lofts containing as many as 5000 nesting holes. Pliny wrote disapprovingly of pigeon mania amongst the aristocracy.

In Britain there is no evidence of pigeon breeding until the arrival of the Normans, the earliest evidence being nesting recesses built into the fabric of castle walls. The first known independent structure, or dovecote, was built at Garway in Yorkshire in the early 13<sup>th</sup> Century.

The main body of the talk concentrated on Northamptonshire which seems to have had a significant number of dovecotes. The earliest appears to have been at

Higham Ferrers and is dated to 1298. By 1313 records show that there were 2 in Higham Ferrers, 2 at Rushton, 1 at Lowick and another at Raunds. The earliest standing example in Northamptonshire is at Nassington and dates from 1490.

Early writing on the building of dovecotes expounds the principles of construction. Dovecotes needed to be tall and airy, and provide nesting places that were enclosed and dark. The building should be within sight of the house so that predators and thieves could be easily seen. The dovecote should be separate from other buildings, but other buildings should provide perching places sheltered from the wind.

We were shown examples of dovecotes of various designs - round, square, rectangular octagonal, single and double cell, post-cots and various nesting boxes built into the structure of other buildings.

The interiors were also examined and we were shown the nesting boxes, which are L shaped to give the nesting birds protection. Drinking troughs with 'piped' water were an early feature. Elaborate thought was also given to designing entrances, which would exclude larger birds of prey. After 1735 protection also had to be added to deter the newly introduced Brown Rat, this usually involved raising nesting boxes higher from the ground and introducing protruding ledges which discouraged climbing.

Pigeons were kept for food, the young doves or squabs being spit roasted, put in pies, cooked in batter or even rendered down into a paste which was used as seasoning. Old birds were boiled.

The birdlime, high in nitrogen, was collected as manure to fertilise the fields, whilst small amounts were used medicinally to cure baldness and melancholy. In Tudor times a Royal patent was given for the collection of birdlime as a principal ingredient in the making of gunpowder.

Pigeons were also used for delivering messages. This practice was used early on in the Middle East. More recently, The Daily Graphic kept a loft at Dover for birds bringing in news from the Paris Stock Exchange. During the WW1 the armed forces used no fewer than 100,000 pigeons, and as late as the WW2 13 pigeons received medals for outstanding service.

Today pigeons are kept largely for ornamental reasons and dovecotes have become decorative garden features. Many dovecotes only remain as ruins though some have changed use and now act as barns, sheds and occasionally have been converted into houses. An interesting conclusion to Colin's excellent talk was the



Prebendal Manor House, Nassington - late 15<sup>th</sup> century.

© Geoffrey Starmer

series of slides identifying dovecote features in converted buildings. Those members who attended the talk will no doubt be keeping their eyes peeled to find further examples.

*Jan Fajkus*



### **Proposed East Anglian “Railway Day out”**

If there is sufficient interest forthcoming, as an extension to the Summer programme, I am prepared to lead a day circular “railtour” around East Anglia using scheduled rail services.

The day would start at Stamford station, where free parking is available, in good time for the 08.57 train to Ely (Day return ticket approx £9) - I would suggest arranging car-sharing to get there once numbers are known. This takes us through Peterborough, Whittlesey, and March to Ely, where there should be time for a brief coffee-stop, and to purchase an “Anglia Day Pass” ticket for the rest of the days travel (£11 or £7.25 with a senior railcard for those old enough !)

The journey then continues along the East Suffolk line, through Woodbridge, Saxmundham, Halesworth, Beccles, and Oulton Broad to reach Lowestoft, where there will be a short break before going on to Norwich. From Norwich we then return to Ely passing through Wymondham, Thetford and Lakenheath, before retracing our outgoing route to Peterborough and Stamford.

Assuming all connections work, we should be back in Stamford just after 6.00pm. That is the basic anti-clockwise tour (or it can be done in the other direction) - but the length of the day can be extended if desired by staying longer at some points, and some alternative destinations such as Cromer, Sheringham or Yarmouth could be substituted (also if members wish to “do their own thing” after a certain point, I could provide times of later trains etc).

Apart from a lot of train travel and railway interest, the day offers plenty of good scenery, and a fair amount of IA interest if you know where to look en route - old brickworks at Whittlesey, the Fenland, Ely, bridges over the Broads etc etc - all for about £20 (2006 prices - maybe slightly more this year !)

A midweek day is suggested, as the railways have a habit of being out of action somewhere every weekend.

Otherwise the choice is open to discussion - June or July is probably best to gain advantage of the longer days and hopefully better weather.

Members who are interested are invited to contact me direct, either at meetings/walks, or by on 01536 713518 or preferably at [barryr.taylor@btinternet.com](mailto:barryr.taylor@btinternet.com), stating any preferences for dates etc. and giving contact details.

Once I can establish the level of interest/dates/requirements, I can develop things further, and get back to you.

NB: there are also other similar days available in the West Midlands (for example a circular Northampton or Long Buckby (free parking again), Birmingham, Stafford, Nuneaton, Birmingham, Worcester (out and back on different routes) - fare approx £15 all-in !!

Barry Taylor



### **Memories of a child brought up in a Gasworks house, 1918-1929**

It was John Horne's article *The Gas Manager's Little Lot* HGT March 2004 that bestirred the dregs of my memory to add to John's account.

The Works of which my father was Engineer and Manager had an annual make of 60m c.ft. per year. Works size was always defined by the annual make. My father's was what was then called a typical country town Works.

It was in 1922 when I was ten years of age and allowed to look around (without getting into anyone's way) that the 'process route' of gas-making by carbonising coal started to impress my memory.

The hand charging with shovel of about 1¾ cwt. of coal into a 22" x 16" D-shaped stop-ended retort was a feat I very often watched. The raking out of coke did not strike a similar chord, though the level of the coke due to the adept level coal charge was admired. What I thought was a bonus for this activity was the slicing of scurf from the walls of the retorts, which from time to time went to make pure carbon products like filters and, I think, pencils.

My chief interest at that time was the exhauster house, which housed all the Works machinery. It was not the exhausters that gave interest so much as the steam engines which drove them. Even in those days, steam engines were fascinating, and to a young person even more so.

The larger engine/exhauster combination was in use throughout the winter and the smaller (half the capacity) ran all summer.

It was the engine to the latter which was so very different. The cylinder and valve chest was upright bolted (cylinder cover end) to the baseplate. The crosshead was unguided and the connecting rod big end drove the shaft with a pin (about 1½" dia.) located to a heavy round wheel (ie no crank). The shaft was running on two bearings, at one end the offset pin/wheel and at the other the flywheel and this was about 5ft diameter. There were three belt pulleys on the shaft - the smallest drove the exhauster - the belt ran down at about 45° from the engine shaft about 4ft above the exhauster pulley. The engine ran at a fixed speed, controlled by an independently-mounted Pickering governor driven by the second pulley, and it had 4" diameter balls (painted red) and was linked to the steam throttle valve. To cater for the variations in gas flow, the exhauster had a bypass with butterfly valve actuated by a bell and water tank - this latter method was used when exhausters were driven by electric motors. The third pulley drove a line shaft, in turn driving

a water pump (coke quenching) and two liquor pumps (hydraulic mains and tower scrubber).

It was the intention to put a P & A tar extractor in the gas stream after the exhausters, but though waiting to be fitted, it never was. Most Works used the Livesey washer as a tar globule and tar fog arrestor, and with the advent of WW1 Livesey washers (which most Works had) became a very important item of plant.

It was decreed by the Ministry of Munitions that all Works should use tar rather than ammoniacal liquor in these washers, with the intention that the gas would be scrubbed by the tar to yield an extra quantity of benzene, toluene and xylene. It was the toluene (benzene scrubbing with gas oil hadn't been thought of) that was required for the explosive TNT (trinitro toluene). Incidentally, the only supply of this hydrocarbon was as a product of coal carbonisation. The most powerful explosive was Amatol, which was mixture 1 to 4 of TNT and ammonium nitrate. The call for toluene by the end of WW1 in 1918 had been raised to 720 tons per week. This came from the carbonisation of 600,000 tons of coal per week - obviously not just from gas retorts, but also the coke oven industry, ie every type of coal destructive distillation.

Following the Livesey washer at the Works described, the gas passed to a tower scrubber, a vessel about 8ft diameter and 35ft high. The large cylinder-like vessel was packed with slatted wood strips to present to the flow of gas a counter-current flow of liquor. The liquor was cooled (in this case by storage in an old gas holder tank) so that it could wash the remaining ammonia. Gas liquor, if required to get a good price, had to have maximum contents of both the "fixed" and "free" ammonia - the fixed content was that produced at the hydraulic main - the heat at this point had boiled off the "free" which was "caught" by the tower scrubber.

It was several years before it became general knowledge that cold gas limited the oxide purification of sulphuretted hydrogen,  $H_2S$ , and heaters for the gas stream came into use - they were an array of gilled tubes heated by steam.

Initially the final purification - a dry process - was not by oxide of iron, as just mentioned, but by quick lime. Up to 1918, the prescribed quality of gas was its candlepower. The advent of the Welsbach mantle was not sufficiently appreciated, so it was the lighting effect of raw gas flame which was the test for quality. Now the abstraction of the higher hydrocarbons for the war effort (TNT) compelled the Gas Referees to waive the candlepower unit, and in 1920 calorific value took its place.

In the candlepower era, quick lime as the purifying material had the advantage of removing carbon dioxide and  $H_2S$  - thereby 'helping the light' ie C.V. The removal of  $CO_2$  lost some of its significance with the change, and the side effect of spent quick lime having a greater affinity for  $CO_2$  than  $H_2S$  gave rise to real problems of smell when it was removed from the boxes. The pile of spent lime - hacked out with picks and shovels - took  $CO_2$  from the atmosphere and released the  $H_2S$ . It was no wonder that iron oxide soon replaced quick lime. Incidentally, despite the smell of spent lime, the farmers were anxious to get it as a fertiliser, which was free for the fetching!

It was common practice to have the purifier 'boxes' arranged in units of four. Each box was in this case 20ft square. They were about 6ft deep and had covers made gas-tight with a rubber joint and there were two lids to each box.

Oxide of iron when spent was not as troublesome as lime and it could be revived in situ: a definite advantage, but when removed from the box it would take up oxygen to fire the sulphur removed as  $H_2S$  thereby producing sulphur dioxide, a dangerous gas. Unlike lime, oxide was spread out on the purifier shed floor in a layer about 6" thick. At this stage, and if not fully spent (indicated by a free sulphur content test) it could be put back until it was fully spent). Another advantage of oxide at that time was that spent oxide could be sold for more per ton than the price of new. The sulphuric acid market controlled the selling price.

There were clever techniques adopted to determine the best operating results: box rotation, ie 1.2.3.4. - the series of flow which would be changed to 4.1.2.3. and so on. Yet another tip was to pass the gas downwards through the oxide bed instead of upwards, the latter being the most common practice.

From complete purification as demanded by the Gas Referees - ie quality (calorific value) and purity (freedom from the  $H_2S$ ) - the gas was metered before flowing to the holders. In my early days, the meter was a huge vessel in which rotated a drum divided into pockets, from which water was displaced by gas. The level of the water determined the accuracy and the rotation determined the volume measured.

After being at the sharp end of the gas industry until 1958 (40 years) it would be an oversight not to mention the men - a wonderful work force. As a pre-teenaged lad, it was the stokers who I admired the most - this could be due to them talking about all sorts of interesting things, like growing plants in a greenhouse. There is no doubt that 'across the board' gas workers were the 'salt of the earth', and I reckon it was a privilege for me to have worked with them.

*Ray Hutchinson*



*NB: Ray Hutchinson was from Northampton, this article was sent to the wife of a Daventry Gas Manager, the late Sam Dolby. The article was passed on to us by member Roy Sharp.*



**Saturday - 9<sup>th</sup> June 2007**  
**Boots Manufacturing Site and**  
**Ruddington Framework Knitters' Museum**  
**Nottingham**

**Boots factory**

Construction of Boots' manufacturing site outside Nottingham commenced in the late 1920s and continued into the 1930s; the vision was to build a huge new manufacturing plant that would incorporate the very latest ideals of industrial production. We will be visiting the D10 'Wets factory', a grade 1 listed building, where items such as creams pastes, shampoos and medicinal products are manufactured. The visit will last about 2½ hours.

**Ruddington Framework Knitters' Museum**

We will visit a unique complex of listed frameshops and outbuildings arranged around a garden courtyard, together with a former chapel in which many of the knitters worshipped. The site has been restored to show both living and working conditions of the framework knitters throughout the 19<sup>th</sup> century.

We will have the services of a guide to explain the operation of the machines.

This is an independent museum, so there will be a small charge.

Advance booking is essential. Numbers are limited to just 20 - so please get your names to Jane & Terry on 01327 312850. Full details will then be supplied with each booking.

*NB: There are now only 3 places left.  
Details will be with those who have booked shortly..*

## Miscellany of items of interest

### Museum dream turned down by WNDC

Recently there has been news that a project to open a Museum dedicated to a collection of archaeological treasures and rural antiques was turned down by that Government Quango WNDC. Two brothers, Steven and Robert Hollowell, had spent some 15 years searching for a site to house all kinds of artefacts and found a suitable site on former railway sidings close to Billing Aquadrome. The development had had the support of Northampton Borough Council, Cogenhoe Parish Council and many schools in the area. WNDC said that the site was not *'the right place to build a rural museum'* (they wanted to build it in a town!). It was something to do with how to get there - as access would have had to have been by car and it would appear that WNDC did not like the idea of lots of cars going to the site. Oh and by the way - a chap living in Cogenhoe says that there is a bus which goes within 150 yards of the *'inaccessible'* site.

*So it's OK to build loads of houses with their attendant cars on green fields, but not a heritage educational facility. What hope for the West side of Northamptonshire with this lot in charge. Ed.*

*Compiled from various reports in the Chronicle & Echo - various dates.*

### Noted from the Chronicle & Echo - March 29<sup>th</sup> 2007:

Barratt's last shop, which was in the Grosvenor Centre, closed its doors to business on the 29<sup>th</sup> March this year. The firm was purchased by Stylo Pro back in the 1960's and the headquarters moved to Bradford and away from the home of the shoe industry in the Midlands. The imposing state of the art, neo-baroque factory on Barrack Road still remains and this was converted into offices and a hairdressers some years ago.

The company was first set up in 1903 and by 1945 had flourished into a million pound company. 'Walk the Barratt way' was their catching slogan and the shoes were exported across the world. Sir Ernest Shackleton was one of their famous customers.

### Notes from Peter Perkins as submitted to AIA News:

A use for the former Express Lifts Tower in Northampton's St James area is still being sought. The 127 metre high Grade II listed tower owned by Taylor Woodrow was saved from demolition 12 months ago but now the University of Northampton is looking to review a range of potential uses for the structure and is seeking commercial suggestions that relate to teaching, research or consultancy work. The tower, known affectionately as the Northampton Lighthouse and a landmark visible from the M1, was built in 1982 using a continuous concrete casting process and was used for testing lists but has been out of use since 1997.

Planning applications are posing a risk to several former industrial sites in the county.

1. There are plans to demolish the former Pearce's tannery in Great Billing, but it is hoped that the art deco office building will be saved and form part of the new housing/office development
2. In Rushton, proposals to substantially modify the former Grade II Glendon and Rushton station (closed in 1960) were withdrawn and the buildings are up for sale. On the Midland Railway's Leicester to Bedford line, the stationmaster's house and abutting ticket hall are built in local limestone and feature Norman style windows with polychrome brickwork.
3. There is an application to demolish the last part for the former E & H Roberts agricultural engineering works in Deanshanger. The building dates from 1860 and was latterly used as a laboratory for a company supplying pigments for paints; it features elaborate cast-iron window frames. In its heyday, Roberts supplied a range of agricultural implements and wind operated pumps throughout the country and for export.

*Please keep a look out for planning applications - and let us know about the proposals to demolish, upgrade, turn into something else etc. We may be able to get a photo or two and as a body, may possibly influence any planning decisions.*

From the AIA News: The Cornwall and West Devon Mining Landscape has been designated a UNESCO World Heritage Site. 70 organisations helped to put in the bid.

Noted from the Evening Standard of 6<sup>th</sup> September 2006.

The Royal Festival Hall, due to be reopened in June this year has been bang on schedule. When the seating and all the interior decorations had been stripped out concrete terraces were revealed. At the time of the report it was to be noted that during work 30 miles of scaffolding occupied the auditorium, laid end to end they would stretch from Waterloo Bridge to Henley. Besides the 30 miles of tubing, there was a further 40 miles of scaffold boards, 2,160 temporary decking and nearly four miles of masking tape. Apparently nearly 400 construction workers were on site every day. The scaffolding allowed builders to remove the wave ceiling and to replace it with a more modern, acoustically sharper structure based on the original design. Whilst this was going on workers were refitting the seating area and stage.

The Hall is 55 years old and Grade I listed. All work had to remain in keeping with the original design.

*Many a time I have sat in the auditorium, concerts, ballet and even on Red Cross duty in my 20's. (not a happy experience). I first went to the RFH when I was about 6 so the Hall can't have been open long - Ballet of course. Beryl Grey, Anton Dolan, Robert Helpman et al. Just before my 21<sup>st</sup> birthday I was honoured to present a bouquet to the late dowager Duchess of Gloucester a most embarrassing experience (for me) in that she was so tiny and I felt very awkward being much taller also wearing heels (1½" in those days) and in uniform to boot.*

*The curtsy ended up with one knee on the floor!! The concert was excellent and this has made me think do I still have the programme?*



### **Of This and That**

As we go into print I have received notice that R F Lewis of Glebe Lane, Great Houghton passed away recently. His son tells us that his father had a long term enthusiasm for Industrial Archaeology and that some of his earliest memories 'are of being taken to see derelict buildings and large metal wheels under the expert guidance of Geoff Starmer'.

**Summer Walks and Visits 2007.** Programme enclosed. Look forward to seeing you on one of the Friday evenings or indeed one of the odd Saturdays.

#### **Dates for the Diary:**

- 4<sup>th</sup> May NIAG's summer programme commences.  
12<sup>th</sup> May Industrial Heritage Day - Boston, Lincs. Book by 23<sup>rd</sup> April.  
14/20<sup>th</sup> May AIA visit to Latvia.  
Details from Paul Saulter, 80 Udimore Road, Rye, Sussex, TN31 7DY - e-mail: [paul@ia-tours.demon.co.uk](mailto:paul@ia-tours.demon.co.uk).  
10-12<sup>th</sup> June The International Importance & Context of Pontcysyllte Aqueduct at Wrexham. Launch conference for the nomination of the Pontcysyllte & Chirk Aqueducts as a World Heritage Site.  
Details: [kay.rickard@wrexham.gov.uk](mailto:kay.rickard@wrexham.gov.uk).  
10-16<sup>th</sup> August AIA Preston Conference: University of Central Lancashire, Preston. The AIA annual conference.

#### **TV Programme:**

- Channel 4 Sundays at 5.40 pm. Scraphead Challenge. Wonderful what can be made out of odd bits of scrap. Commenced 15<sup>th</sup> April.

#### **Lastly:**

##### **Where do NIAG members go on Saturdays?**

Not always to IA sites - on Saturday 31<sup>st</sup> March, by coincidence, 12 NIAG members unexpectedly met at the Dulwich Art Gallery, South London, for the "*Canaletto in England*" exhibition, some with a group from the Friends of Northampton Museum, others who had made their own way there.

*There was one small piece of IA: "A View of Warwick Castle" from across the river had a rare depiction of the original 'Water Power House' for the Castle.*

*Geoffrey Starmer*

## **NIAG Committee**

President: Geoffrey Starmer, 34 The Crescent, Northampton, NN1 4SB  
Chairman: Peter Perkins, Eastfields Farmhouse, Manor Road, Rushton, Kettering, NN14 1RH  
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## **Newsletter:**

Next Issue: **July 2007**

Deadline for all articles and information 20<sup>th</sup> June 2007. Anything received after this date will be held over to the next issue.

*Article guidelines: No more than 1½ pages long please. Photographs will be inserted if submitted.*

Please submit by e-mail, fax or mail. Where possible photographs are encouraged to illustrate all articles. When submitting photographs it would be appreciated that they are not sent via e-mail as this can take a very long time to download and the quality is not always good. Preferably send photographs/ slides by post (first class) and these will be returned to you the same way. Please also include your name and address so that you can be credited with taking those photographs and don't forget to put a caption with them.

