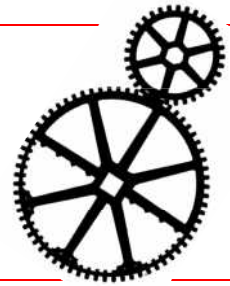

INDUSTRIAL HERITAGE ASSOCIATION OF IRELAND NEWSLETTER

www.steam-museum.ie/ihai
www.steam-museum.com/ihai

No 30
November 2007



DIARY DATES

15 Nov	IHAI Awards 2007, Dublin.
22-24 Feb 2008	'Toil and Trouble'. IPMAG conference, Kenmare, Co Kerry

Events in bold are organised by IHAI.

Hasn't the year flown! Despite the passage of time, this is only the second IHAI newsletter to appear this year. Profuse apologies are in order and my only excuse is that I have been up to my oxters (literally in some instances) surveying bridges, canals and railways since the Spring and am still on the dreaded write-ups!

If this missive reaches you before our event on 15 November, it is due to the sterling efforts of Ron Cox who does the copying and dispatch. To avoid missing out on any events between issues, I'd recommend that you log into the IHAI website from time to time (address above). You can also print out this newsletter in all its glorious technicolour.

A problem has come to light regarding emails – sometimes they do not always find their destination! If you ever send me one, it will be acknowledged. If it isn't, assume it hasn't reached me and phone instead.

There will be another *Newsletter* in February to bring you news of our 2008 programme. This is still being firmed up, but an event is being planned for late February/ early March and our AGM will be held shortly after Easter.

As always, reports and notifications of upcoming events will be gratefully received. As Christmas is already well underway in the media, I'll take the opportunity to wish you a happy New Year and Easter instead.

INDUSTRIAL HERITAGE AWARDS 2007

The annual IHAI Awards will be presented in the categories of Site/Museum, Publications, and Lifetime Achievement. They will be made on Thur 15 Nov 2007 in the Conference Room, Engineers Ireland, 22 Clyde Road, Dublin 4 at 6pm. There will also be a reception in the Clyde Bar from 5pm onwards. All IHAI members and friends are cordially invited. To facilitate catering, please contact Ron Cox if you plan to attend - tel 01 8962544, email rcox@tcd.ie.

IHAI AGM, 2007

At the AGM in the Guinness Storehouse last March, Norman Campion stepped down as President and was replaced by Mary McMahon. Ian McQuiston was elected Vice-President. Reggie Goodbody and Gerard Muldoon were welcomed on to the Committee. Our thanks go to Norman for his service and commitment and to Andrew Ogden and Barry O'Reilly for their endeavours on the Committee over many years. The Secretary's report for 2006-07 is reproduced below.

TOUR TO GREAT BRITAIN, APRIL 2007

An intrepid band of IHAI members met up on the morning of Thursday 26 April at the Stenna Ferry Terminal, Dun Laoghaire for the Association's first overseas (ad)venture. This imaginative tour was conceived by Andrew Ogden, aided and abetted by Norman Campion and Stephanie Bourke, to whom our sincerest thanks are due.

An uneventful crossing brought us to Holyhead at the western tip of Anglesey. **Holyhead Harbour** was instigated by the Admiralty in the 1820s with the construction of piers by John Rennie and Thomas Telford. The 1½ mile long breakwater which we saw on entering is a later construction of 1848-73. The Chester & Holyhead Railway arrived in 1850, greatly speeding up the mail packet service between London and Dublin. It became part of the London & North Western Railway in 1859. Members may recall that it was the LNWR which, in 1873, also began services to Greenore, Co Louth and built the recently demolished hotel.

Our luxury coach took us across the **Stanley Embankment**, built by Telford to link Holy Island, on which Holyhead is located, to Anglesey proper. The old A5 across the island, built by Telford between 1820-28 has recently been upgraded out of all recognition and it was not long before we came to the Menai Straits where we viewed another of his masterpieces, the **Menai Suspension Bridge** which connects the island to the Welsh mainland. Opened in 1826, it is considered to be the world's first modern suspension bridge. Its soaring 580ft span was designed to allow sailing ships with masts up to 100ft high to pass underneath at high water.

Just west was another world first, in the form of the **Britannia Railway Bridge**. This was designed by George Stephenson for the Chester & Holyhead Railway and executed by his son Robert from 1846 onwards. The 460ft main span comprised two wrought-iron box girder beams inside which the trains ran. When opened in 1850, this innovative bridge gave an uninterrupted journey to and from Holyhead. Following a disastrous fire in 1970, the spans were rebuilt as steel truss arches, with a new road on a top deck and the railway below.



Something more sublime than Telford's suspension bridge appears to have caught the group's attention.

Despite the efforts of our Welsh-speaking driver, none of us quite mastered the pronunciation of the nearby village of Llanfairpwllgwyngyllgogerychwyrndrobwlllantysiliogogoch! Our next stop was the **Welsh National Slate Museum** at Dinorwig Quarry, Llanberis. The quarry closed in 1969 but its workshops were reopened as a museum in 1972. The site boasts a 50ft diameter waterwheel which drove the machines. This is the largest working wheel in Britain after Great Laxey on the Isle of Man (72ft). The splitting of the slate was done by hand, and we were shown how this was done. Paths and interpretative panels also allow one to explore the quarry workings and spoil heaps, inclined planes and railways.



The Welsh National Slate Museum: old and new technology.

A long drive along Telford's A5 eventually brought us to the town of the same name, where we checked into the Holiday Inn and a welcome meal.

Friday saw us at the **Ironbridge Gorge**, set along a four mile stretch of the River Severn just south of Telford. Ironbridge and its surrounds encompass ten industrial museums, several of which were visited during the day. In recognition of the area's unique contribution to the birth of the 'industrial revolution' in the 1700s, the entire area was designated a World Heritage Site in 1986.

Our first stop was **Coalbrookdale**, where we were met by Harriet Devlin, formerly of the Mourne Heritage Trust in N. Ireland and now with the Ironbridge Institute. It was here in 1709 that Abraham Darby perfected the smelting of iron using coke made from locally mined low-sulphur coal. Until then, charcoal had been the norm, but the woodlands were now being rapidly decimated. His coke-fired **blast furnace** made it possible to produce iron in bulk and more cheaply than before. The furnace is now covered over for protection.



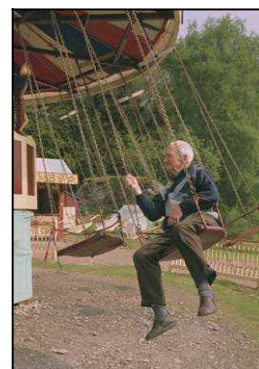
Outside Darby's furnace.

Darby's ironworks initially produced cooking pots, but he was able to diversify into other products such as steam engine cylinders and iron rails. The **Coalbrookdale Museum of Iron**, near the furnace, is housed in the Darby company's Great Warehouse of 1838 and contains many exquisite examples of the iron founders' craft.

It was Abraham Darby III who erected a **cast-iron bridge** over the Severn at nearby Ironbridge in 1779. Made in sections and assembled on site, this 100ft span was the first in the world to use cast iron structurally. Darby enlarged his grandfather's furnace to produce the vast quantities of iron needed for each section (each being a continuous pour).



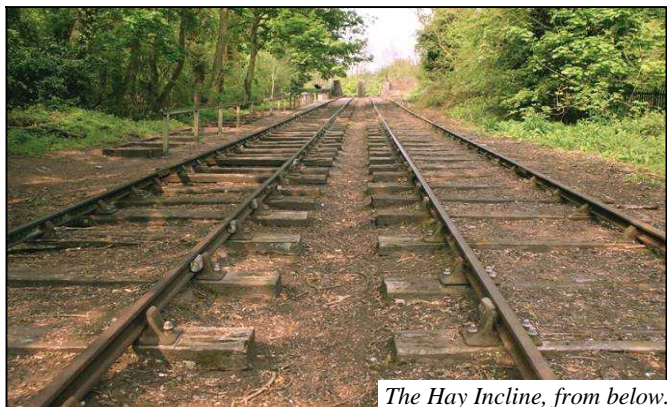
The afternoon was spent at **Blists Hill open-air museum**, where a late 19th century Victorian town has been created around a group of existing earlier 19th century iron ore mines, blast furnaces and brickworks. Besides the preserved original industrial monuments, there are various shops where you can literally spend a penny, a print works, candle-maker's shop, and foundry where wrought- and cast-iron items are still produced. The 1889 refreshment pavillion, set in the midst of it all, provided a welcome cup of tea.



Billy Dunlop – the oldest swinger in town!

The Shropshire Canal runs through Blists Hill, ending at the **Hay Inclined Plane**, a spectacular 1000ft long incline opened in 1793. It linked the canal with the Coalport Canal, some 200ft below, and from which the River Severn could be accessed. The tubs ascended and descended the incline on wheeled cradles which ran on rails.

To be continued in the next Newsletter ...



The Hay Incline, from below.

VISIT TO TITANIC QUARTER, BELFAST

Over 50 members and guests assembled in Belfast on Saturday, 14 October for a day-long visit to the 75 hectare



Titanic Quarter site on Queen's Island, organised by the IHAI Vice-President, Ian McQuiston. Half of those present had an early start as they travelled by the 07.35 *Enterprise* service from Dublin. On arrival at Belfast Central Station, they were greeted by the rest of the group and conveyed to the Titanic Quarter on a vintage double-decker bus.

Outside H&W headquarters on Queen's Road (Sunset Strip?).

The first stop was the former **Harland & Wolff Drawing Office** where some 1700 ships were designed, including the *Olympic* and *Titanic* liners. Marcus Blair of Titanic Quarter Ltd showed the group around the building and then the **slipways**. In the fine weather, we tried to visualise what the Harland & Wolff shipyards would have looked like in the early 1900s when some 30,000 persons were employed in the many crafts and skills associated with shipbuilding on a massive scale.



*A panoramic view of the 250m long slips from which the *Olympic* and *Titanic* were launched.*

A number of large dry or graving docks have been retained as listed structures and are to be part of an ambitious redevelopment of the area. The group was shown the **Alexandra and Thompson docks**, in between which is an impressive Victorian pumping station which drained them.



The Thompson Dock, with the pumping station to its left.

In the Alexandra Dock, opened in 1889, we were shown around the 4000 ton light cruiser **HMS *Caroline***, the second oldest commissioned ship in the Royal Navy. Built in 1914 and powered by four Parsons steam turbines, she was capable of up to 30 knots. She is the last surviving vessel to have fought at the Battle of Jutland in World War One. The turbines are intact and are believed to be the oldest examples in existence and among the first to be used in warships.



HMS Caroline in the Alexandra Dock.

The *Olympic* and *Titanic* were both fitted out in the Thompson Dock, opened in 1911 and the largest facility in the world at the time.

Lunch was taken on board the *Nomadic*, a steamship of the White Star Line, launched on 25 April 1911 in Belfast. She was built as a tender to the *Titanic*, based at Cherbourg, and is the last remaining vessel built for the White Star Line still afloat. She is moored at Queen's Quay near the Odyssey Arena. As you will have read in a previous IHAI Newsletter, the ship has returned to Belfast for restoration and you can follow progress on www.nomadicpreservation.society.co.uk.

After lunch, the group returned to the dry docks to view the Pumping Station and inspected more closely the engineering involved in the creation of these large structures that have been associated with many famous ships 'made in Belfast'.

Time allowed for those returning to Dublin on the 18.10 train to see something of the older buildings of Central Belfast from the top of the bus. So ended a most interesting and well organised visit – thanks again to Ian McQuiston (ably supported by Fred Hamond) for the organisation.

Ron Cox

ULSTER CANAL

In October, the Irish Government and Northern Ireland Assembly jointly announced their intention to reopen the Ulster Canal between Clones and Wattle Bridge. Because of various obstacles, it is proposed to cut what is largely a new route to link the town with Upper Lough Erne and the Erne-Shannon Waterway. It is reckoned that the planning process will take upwards of four years before any work commences.

At only 11ft 6in wide, the locks on the Ulster Canal are the narrowest on the entire Irish canal network. Although this first stage of the project, which is ultimately to restore the entire canal, will not impact on any of the original locks, it is proposed to widened the existing ones where they are to be reused and also remove the towpaths from under the road

bridges. This has, and will doubtless continue, to generate much debate regarding development gain and heritage loss.

It is hoped to run a feature on the canal's restoration in a future *Newsletter* in which these issues can be explored. If you have any views on the matter, please send them to your editor at the contact address given at the end of this issue.

THOMAS TELFORD CELEBRATIONS

During 2007, an extensive programme of events in the UK was organised to mark the 250th anniversary of the birth of Thomas Telford. The programme was coordinated by the Institution of Civil Engineers. Amongst the major events were those based at Edinburgh and Bangor in July.

A true visionary, Telford had the practical skills to turn then unimaginable feats of engineering into awe inspiring realities. Telford made a very significant contribution to the civil engineering profession and enhanced the lives of many people. Engineer, bridge builder *extraordinaire* and dubbed 'Colossus of Roads', Telford's output was prolific. His work in Scotland alone included more than 1100 bridges, 1200 miles of road, the Caledonian and other canals, water supplies to Edinburgh, Glasgow and Wick, 43 Highland churches, and harbours at Aberdeen, Ardrossan and Dundee.

In recognition of Telford's enormous contribution, the Royal Society of Edinburgh, of which Telford was a distinguished member, organized an international conference in Edinburgh on 2 July 2007. Bringing together experts from around the world, this major event explored the breadth of Telford's contribution and offered a thought provoking showcase of its relevance today. Papers were presented on Telford's canals, harbours, road and bridges.

Following on immediately but independent of the conference, there was a tour of many of Telford's works in Scotland. The four-day coach tour, arranged by the Panel for Historical Engineering Works Scottish Group, included visits to Craigellachie Bridge (one of Telford's trademark iron suspension bridges) and the Caledonian Canal.

The Welsh conference, *The Telford Legacy in North Wales*, was held on 9-13 July at the University of Bangor, North Wales. Papers were presented on the problems that Telford faced when building the London - Holyhead road and its extension to Dublin from Howth, the spanning of the Menai Straits and the Conwy River, the Ellesmere and Llangollen canals and other major works in North Wales. Ron Cox gave a paper on Telford's work in Ireland.

The post-conference tour included visits to many of Telford's



Unveiling of plaque at Craigellachie Bridge.

works in North Wales, including the Ellesmere and Llangollen canals, the Menai and Conwy bridges and Holyhead Harbour.

Ron Cox

THOMAS TELFORD IN IRELAND

A commemorative plaque was unveiled on Howth Road, Dublin, on 16 October by Quentin Leiper, President of the Institution of Civil Engineers, in honour of the ICE's first president, Thomas Telford, who was born 250 years ago. Telford's associations with Ireland included taking over some of the work of John Rennie Snr when he died in 1821, notably at Howth Harbour and Custom House Docks, Dublin.

Telford is probably best known in his role as Engineer to the Holyhead Road Commissioners. The Commission was established to improve communications between London and Dublin. The A5 through North Wales, the Conwy and Menai suspension bridges, and the Stanley Embankment near Holyhead are stunning examples of his engineering skills. At Holyhead, travellers and the mail transferred to sailing and later steam ships for the crossing of the Irish Sea to Howth and later to Dun Laoghaire. Howth Harbour was effectively completed by 1813 and was transferred to the Holyhead Road Commissioners in 1815.

The road connection between the harbour at Howth and Dublin was in very poor condition and was transferred to the control of the Commissioners in 1823. During the period 1823-24, the road was substantially improved and in places completely rebuilt by the Commissioners under Telford's direction. Telford sent William Dargan (who had just completed the Stanley Embankment near Holyhead) to survey the road and later supervise the contractors, Gill Hodges & Co. The section of sea wall near where the plaque is located was a major part of the contract. Much of Telford's sea defences were, however, hidden from view by the construction in 1953 of the North Dublin Drainage Scheme.

The British Post Office mile posts still survive between Howth and Dublin. Parnell, in his 1833 treatise on roads, described the Howth road as "wholly remade, and rendered in all respects similar to the Holyhead road", in other words, built to Telford's exacting specifications.

The Welsh Branch of the ICE has located commemorative plaques at various places along the A5 and very kindly presented one to Engineers Ireland for unveiling in Dublin.

Ron Cox



And again on the Howth Road, Dublin.

HERITAGE OUTLOOK

The Heritage Council of Ireland publishes *Heritage Outlook* twice a year. The winter 2006/spring 2007 edition contained an overview of industrial heritage in Ireland by Colin Rynne, author of the recently published *Industrial Ireland 1750-1930*. You can download it for free from the Council's website, www.heritagecouncil.ie/outlook. This site also gives details of how you can obtain a hard copy on a regular basis.

CO DONEGAL TUNNEL

On a recent Mining Heritage Trust Ireland fieldtrip to Co Donegal, myself and two fellow MHTI members, Matthew Parkes and Alastair Lings, came across a tunnel in the townland of Ballymore Lower, on the N56 between Creeslough and Dunfanaghy (Grid Ref C 05021 34716).

The tunnel is substantially built, aligned north-south, about 3m wide and 6m high, running for 30m or so. At the southern end (away from the road), there is woodland. There is also a side tunnel at this end of the tunnel curving away back towards the road, but this is gated and locked.



Left - North end of tunnel. The ornate portal was removed during road widening. Right - Exit from side tunnel to stables.

Whilst the northern end of the tunnel, visible from the road, isn't much to look at, the southern end is very ornate and led my friends to suggest that it was a railway tunnel on the Letterkenny to Burtonport Extension Railway. This I could discount immediately as there were no tunnels on this line and a cursory check on the map showed the trackbed of the railway to be some distance away. Opposite the tunnel is a Church of Ireland. A private access to the estate of the local landlord was therefore the most logical explanation.

This has since been confirmed by further research by Alastair Lings. He advises that the tunnel was built so that Mrs Stewart of Ards House could get to her church without being seen by the locals! There were stables accessed by the side tunnel mentioned above; these are marked on the 1903 25-inch OS map for the area. The northern end (on the main road) also had an impressive portal but this was destroyed during road widening. My thanks to Alastair Lings and Fred Hamond for providing information for this article.

Ewan Duffy

IHAI ANNUAL REPORT, 2006-2007

The Executive Committee of the company met immediately following the 2006 AGM, which was held at the Steam Museum at Straffan by kind permission of Robert Guinness, and on four further occasions during the session.

Our Annual Return was made to the Companies Office in October 2006. The company, through its Caretaker Agreement with Fingal County Council, has been registered for Corporation Tax and as an Employer in order to allow the FAS scheme at Shackleton's Mills to proceed. The IHAI

have been indemnified by Fingal County Council from any costs whatsoever incurred in the project. Progress is currently halted due to an industrial dispute, but it is hoped that work can get underway in the near future.

The advice of the IHAI was sought during the session on a number of heritage, conservation and archival issues. A list of industrial heritage consultants is held by the company.

Membership currently stands at 133, of whom 19 are new members joining during 2006. Membership renewal invitations were sent out early in the current year and members who have not yet done so are requested to send their renewal subscriptions in as soon as possible.

Newsletters continue to be produced and circulated on a regular basis and thanks in this regard go to our Editor, Dr Fred Hamond. Newsletters are circulated to all Local Authority Heritage and Conservation Officers as well as to members. The colour version of the newsletter is available on our website together with a number of past issues.

Thanks are due to Rupert Fuller for maintaining the IHAI website which continues to be hosted on the Steam Museum, Straffan site (by kind permission of Robert Guinness). It is proposed to further develop the web site.

Our Summer Outing on the 15 July 2006 was to the Baily Lighthouse & Museum, the Transport Museum in Howth and the Fry Model Railway Collection at Malahide Castle. Thanks to Michael Lynch for organising this event at which there was a good turnout of members and friends.

The Autumn Outing on 14 October 2006 was to Clara, Co Offaly, to visit the old jute factory, Erry flour mills, the Quaker meeting house and burial ground, and sites associated with the Goodbodys. Several members of the family were present to explain the Goodbody connections with Clara and point out the industrial heritage of the town.

The IHAI was associated with lectures organised by the Heritage Society of Engineers Ireland, in particular lectures on Swedish Trade & Industry through the ages, James Drumm & the Battery Train, and Our Good Health (the story of Dublin's Water Supplies and Drainage).

A very successful Industrial Heritage Networking Conference was held on 15th November 2006 at Dublin Castle in association with the Heritage Council. The report of proceedings, discussions and recommendations is to be published by the Heritage Council.

Our Vice-President, Mary McMahon presented a paper on Dublin's Industrial Heritage to a TICCIH conference in September in Terni, near Rome. It has been agreed that IHAI should become members of The International Committee for the Conservation of the Industrial Heritage. Mary also represented IHAI at a meeting of local authority heritage officers in Swords.

Ron Cox presented a paper on Urban Water Supplies in Ireland 1750-1950 to a conference on Urban Water Heritage held in Coimbra, Portugal. Organised by the newly established Water Section of TICCIH, the conference was attended by the TICCIH President, Eusebi Casanelles.

A draft agreement for Ireland's membership of TICCIH, represented by IHAI, was discussed and it is hoped that a formal agreement will be concluded in the coming months. The IHAI continues to play an active role internationally, not only through TICCIH, but by committee membership of

ICOMOS (the International Committee of Monuments and Sites) and by our Associate Membership of the AIA.

In our Industrial Heritage Awards for 2006, *Best Publication Award* went to Dr Colin Rynne for his book *Industrial Ireland 1750-1930*. This was presented to Colin at his book launch in Cork on 6 Nov 2006.

At the Industrial Heritage Networking Conference, held in Dublin Castle on 15 Nov 2006, a *Lifetime Achievement Award* was presented to Dr Ron Cox. The *Best Heritage Site Award* went to the Irish Railway Record Society on the occasion of the 60th anniversary of their foundation.

Plans for the year include a follow-up to the industrial heritage networking conference and a four-day tour of industrial heritage sites in the UK, including the World Heritage Site of Ironbridge near Telford.

Ron Cox, Company Secretary

WATER HERITAGE CONFERENCE, PORTUGAL

Dr Ron Cox attended the 1st International Conference on Water Heritage in Coimbra/Lisbon, Portugal on 22-23 March 2007. The conference, *Water in Urban Contexts*, was organised by the Portuguese Association for the Industrial Heritage and supported by The International Committee for the Conservation of the Industrial Heritage (TICCIH), and the Portuguese Association of Museums. Prior to the conference, the Coimbra Water Museum was inaugurated. This is housed in a former pumping station, but sadly none of the original pumping plant has survived.

Speakers at the conference included the TICCIH UK National Representative, Miles Oglethorpe. He described the recording and protection of Glasgow's historic Loch Katrine water supply system. This was followed by presentations on the 19th century water supply to Coimbra and urban water and wastewater networks in Portugal. Ron Cox presented a paper on *Urban Water Supplies in Ireland (1750-1950)*.

In the second session, there was a presentation on the development of an open-air museum of waterpower as part of a network of industrial heritage museums and sites in Greece. This was followed by a review of an inter-university project, based in the Lisbon area, concerning the social and educational aspects of industrial heritage. The final two presentations dealt with Iberian fountains and the water supply heritage of Buenos Aires, much of which was designed by British engineers.

The conference was closed by Eusebi Casanelles, President of TICCIH, who formally announced the setting up of a Water Section of TICCIH.

The post-conference tour was to the Empresa Pública das Águas Livres (EPAL) Water Museum in the Lisbon area, opened in 1987. This comprises four sites: the Águas Livres Aqueduct, the Mãe d'Água Reservoir at Amoreiras, the Patriarcal Storage Reservoirs and the Barbadinhos Steam Pumping Station, and are all inextricably linked to the city's water supply. The Water Museum was awarded the Council of Europe's Museum Prize in 1990, and was the first museum in Portugal to be awarded this prize.

The conference party first visited the start of the Águas Livres Aqueduct. Now classified as a National Monument, it is considered to be one of the most remarkable works in hydraulic engineering and one of the rarest and most



The Lisbon end of the aqueduct.

complex preserved 17th century water supply systems. King D. João V in 1732 ordered its construction (commenced 1746) and the whole project was completed by 1834, although most of the aqueduct was ready for use by the end of the 18th century. The Águas Livres (Free Waters) are sourced from springs near Sintra, north of Lisbon, and conveyed 58km by a stone aqueduct of 109 arches to a (service) reservoir, the Mãe d'Água of Amoreiras, in the city. The most visible elevated section of the aqueduct is over the Alcântara Valley (14 arches up to 65m high). Surprisingly, it survived the devastating earthquake of 1755. In the 1960s, the aqueduct ceased to be part of Lisbon's water supply.

The buildings at the Mãe D'Água reservoir at Amoreiras were designed in 1746 by the Hungarian architect Carlos Mardel and built to receive and distribute the water collected by the Águas Livres Aqueduct. The reservoir is 7m deep and has a capacity of 5500cu.m. Its interior includes a waterfall. The cool stone chamber of the Mãe D'Água reservoir is also often used for art exhibitions. On the west front of the building the "Casa do Registo" controlled the flow of water to two underground galleries that led to the fountains and the houses of the city's nobility.

The final visit was to the beautifully restored Barbadinhos Steam Pumping Station. It dates from 1880 and contains four beam pumping engines by Windsor et Fils of Rouen. In its former boiler room, there are displays of water supply artefacts by which it is possible to trace the evolution of the water supply to Lisbon from Roman times to the present.

At the end of the tour, the TICCIH President announced that the Water Section had been invited to hold its next biennial meeting in Ireland. The Executive Committee of the IHAI is in the process of concluding an agreement with TICCIH to act as the TICCIH National Committee in Ireland.

Ron Cox

TOIL AND TROUBLE: ARCHAEOLOGICAL PERSPECTIVES ON ECONOMY

This conference is being organised by the Irish Post-Medieval Archaeology Group (IPMAG) and will take place at Kenmare Carnegie Library, Shelbourne Street, Kenmare, Co Kerry on 22-24 February 2008.

The IPMAG website (www.science.ulster.ac.uk/crg/ipmag/index.html) notes: There are numerous archaeological remnants of the economies of the post-medieval period: agriculture and fishing, which may have been carried on with what might be considered today as "cottage" industries,

such as lace making and smithing. Larger scale “industrial” pursuits took hold in many areas, usually urban, such as overseas trade and shipping, iron-working, milling, pottery, clay pipe production, and various mining activities. The slave trade was one particular enterprise, which was very profitable by treating the human as commodity/artefact. As with any trade, some were more successful and profitable than others, sometimes due to the location of the enterprise or entrepreneur. But, wherever money was made, strife may not be far behind, from petty disputes to military incursions and wars on foreign soils. The concerns and resources of any community are both secular and religious and in many aspects, both converged, such as the building of churches and public buildings as outward displays of wealth.

All these activities, from the kitchen table to the construction and use of quays and churchyards create various economies of this period. While documentary sources are available to elucidate these aspects of life, it is the archaeological perspectives which can offer a unique insight into the theme. For further details contact ipmag2008@gmail.com.

--- RECENT PUBLICATIONS AND REVIEWS ---

LOST RAILWAYS OF DUNDALK AND THE NORTH EAST. Stephen Johnson, 2006. Stg£7.99 ISBN 9781840333701. Stenlake Publishing, 54-58 Mill Square, Catrine, Ayrshire KA5 6RD.

Continuing in the same format as *Lost Railways of Northern Ireland*, this book presents a photographic overview of the railways of counties Louth, Meath, Westmeath, Monaghan, Cavan and Longford. The author has done well in his sourcing of material in that few if any of the 'classics' appear. Brief historical details are given for each line with the date of closure for any stations no longer open.

The quality of reproduction, an issue with previous publications in this series, has improved. In addition, the number of photos of stations, rather than trains, is quite high. Both of these are to be welcomed. A minor point to note is the implication on both the title page and back cover that Navan is a county.

Ewan Duffy

RAILWAYS IN IRELAND, PART ONE. Martin Bairstow, 2006. Stg£13.95 ISBN 1871944317. Published by the author, 53 Kirklees Drive, Farsley, Leeds.

This publication is the first of four titles planned to cover the railways of the island of Ireland. The style is similar to *Irish Standard Gauge Railways* by Tom Middlemass, but the author has arbitrarily divided the island into four regions. The book is a brief history of each of the public railways in the area covered. Points that I noted were:

- The map of railways only shows lines covered in book. Showing connecting lines in a different style would have been better.
- Details of the GNR(I) amalgamation imply one fell swoop in 1876. There were actually multiple amalgamations, eventually arriving at the GNR(I)).
- The 1846 Act setting out railway gauges is the Gauge of Railways Act. The author refers to the Regulation of Railways Act 1846.

- The author has a tendency to refer to the “British Isles” and to the Irish standard gauge as “broad gauge”.

The number of photographs in the book is impressive, as is the selection and quantity of non train photos. Although not connected to railway company operations, the Arranmore Ferry in Co Donegal gets a mention (of particular interest to your reviewer as my father is a native of Arranmore Island).

Ewan Duffy

THE IRISH COUNTY SURVEYORS, 1834-1944: A BIO-GRAPHICAL DICTIONARY. Brendan O Donoghue, 2007. €55 (web price €49.50). ISBN: 9781846820632. Four Courts Press, Dublin.

This book is a comprehensive study of the evolution and achievements of the county surveyor system in Ireland. The introduction in 1834 of these officials – county engineers in modern terminology – to local government was a major innovation, bringing the infrastructural work of the grand juries under the supervision and direction of a corps of professional engineers. The appointments were the first at local or central level in the UK which were made on the basis of competitive examinations. In the years that followed, the new county surveyors and their successors went on to play a major role in the construction of roads, bridges and public buildings, many of which are still in use today.

Preliminary essays describe how appointments were made over the period 1834–1944 and how the work of the surveyors contributed to building up local infrastructure. The biographical dictionary that follows outlines in some detail the careers and achievements of the 200 surveyors who served in the thirty-two counties during the period.

Brendan O Donoghue was formerly Secretary of the Department of the Environment and Director of the National Library and Chief Herald of Ireland. He is the author of *In Search of Fame and Fortune: the Leahy Family of Engineers, 1780–1888* (published 2006).

-- IHAI EXECUTIVE COMMITTEE 2007-08 --

President: Mary McMahon, 77 Brian Road, Dublin 3. Tel 01 8334709; email mcmahonmary@eircom.net.

Vice-President: Ian McQuiston, 5 Knockmore Park, Bangor, Co Down, BT20 3SL. Tel 048 91462880; email ianmcquiston@aol.com.

Company Secretary/ Membership Sec: Ron Cox, Centre for Civil Engineering Heritage, Museum Building; Trinity College, Dublin 2. Tel. 01 8962544; email rcox@tcd.ie.

Treasurer: Robert Guinness, The Steam Museum, Straffan, Co Kildare. Tel 01 6288412; email rcg@steam-museum.ie.

Newsletter Editor: Fred Hamond, 75 Locksley Park, Belfast BT10 0AS. Tel 048 90616480; email frederick-hamond@utvinternet.com.

Committee: Stephanie Bourke (Mills & Millers of Ireland), Norman Campion, James Davidson, Brendan Delany, Ruth Delany, Ewan Duffy (Mining Heritage Trust of Ireland), Reggie Goodbody, Michael Lynch, Paul McMahon, Gerard Muldoon, Mary Mulvihill Colin Rynne

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