

INDUSTRIAL ARCHAEOLOGICAL SECTION of the DEVONSHIRE ASSOCIATION

Issue 2 February 2018

THURSDAY 8th FEBRUARY

IASDA AGM

was held at the Victoria Hall, Broadclyst

About 40 members attended and prior to the formal meeting, were presented with four very different but equally interesting, illustrated talks.

Mick Atkinson talked about *Devon Industries in the 1860's*, Pete Watson described *West Beam Mine*, Wilfred Hodges explained some peculiarities providing *Water Power for South Zeal Mills* and was followed by Brendan Hurley explaining *Innovations in Sewage Treatment*.

During the formal meeting the following committee was established:

Michael Stannard was elected as **Secretary** to the Committee.

Mary Miles elected as **Minutes Secretary**.

The rest of the Committee was re-elected en block as follows:

Chairman: Richard Pocock

Treasurer: Bill Nichols

Committee: Mick Atkinson, Lynette Costello, Iain Miles, Patricia Milton, Graham Wills, Adrian Wills

The chairman gave a vote of thanks to Brendan Hurley, a founder member of IASDA and retiring Secretary, for the sterling work that he had undertaken on behalf of IASDA and the DA. He also thanked Celia King for the time and effort she had spent as Minutes Secretary.

FORTHCOMING MEETINGS

TINWORKING, MINING & MINERS IN THE BELSTONE AREA A Community Day

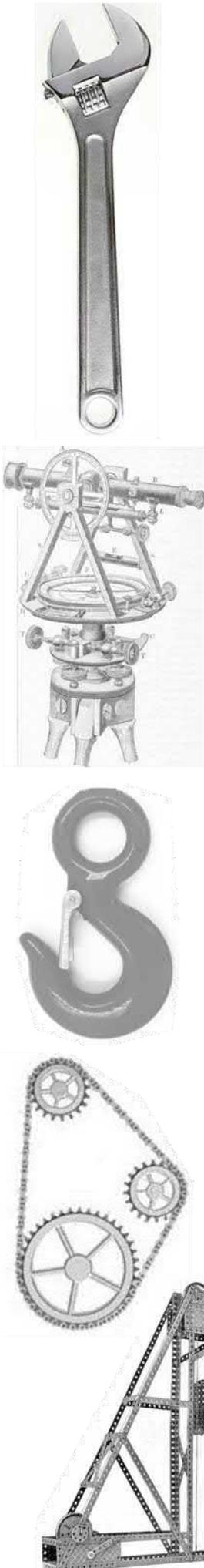
BELSTONE VILLAGE HALL

SATURDAY 24TH FEBRUARY 2018

The Dartmoor Tinworking Research Group is sponsoring a day workshop (with tea) on Saturday 24th beginning at 10.00am. Tom Greeves will be speaking in the morning and, in the afternoon, he will lead a hike down the Lady Brook (3 miles) to explore remains of tinworking in the area.

Michael Stannard

For further details email: secretary@dtgrg.org.uk.



SOMERSET INDUSTRIAL ARCHAEOLOGICAL SOCIETY
in conjunction with
COKER ROPE & SAIL TRUST

**49th South Wales and West of England
Regional Industrial Archaeological Conference**
and tour of
Dawe's Twine Works
West Coker Commemoration Hall
Saturday 14th April 2018

For further details and booking forms: www.sias.me.uk



Rolle Canal & Northern Devon Waterways Society
ANNUAL GENERAL MEETING

Sunday, 22nd April 2018 at 2.00pm
Learning Centre RHS Rosemoor

For further details email: Ian Harrison halehillfarm@gmail.com

Proposed IASDA Field Trips 2018/19

A varied programme of walks and talks is being prepared but final details have yet to be determined and will be published as soon as possible.

It is hoped that the programme will include a visit to Kelly Mine, a walk on Dartmoor taking in the granite tramway and quarries, a visit to Hayle and a look at Fremington Quay to include a boat trip up the River Torridge.

Watch this space!

THE EXETER SHIP CANAL.

A review of a talk by Mr Jack Nott to IASDA at Broadclyst on the 5th December, 2017

Jack Nott, the retired Exeter Harbourmaster who supervised the running of the Canal for 25 years, gave us a fascinating talk about it's history. It was the *first canal to be built in Britain since Roman times and the first to have pound locks.

Previous to the Canal, the river was navigable up to the Roman quays but was tricky on account of shoals and fishing weirs which made it difficult. Countess Isabella De Fortibus, whose interests lay in Topsham rather than Exeter, enlarged the weirs effectively preventing navigation. The name 'Countess Weir' is of course still known.

In 1539, after her family had fallen out of favour, King Henry VIII granted Exeter powers to remove the weirs, but the river was badly silted and so in 1563 the citizens of Exeter obtained an act to construct a barge canal from the Quay to just below The Countess Weir. John Trew, from Glamorgan, was commissioned to build this first canal, 3 feet deep and capable of taking vessels of 16tons, together with the weir which takes his name. It entered the Exe in tidal water, but ships still had problems in getting to the entrance. A plan of 1670 shows the three pound locks, the first on any canal in Britain.



The Quay as depicted in An Account Of Exeter's Merchant Adventurers C16th

Notice the shipbuilding on Shilhay.

Illustration taken from Exeter Memories

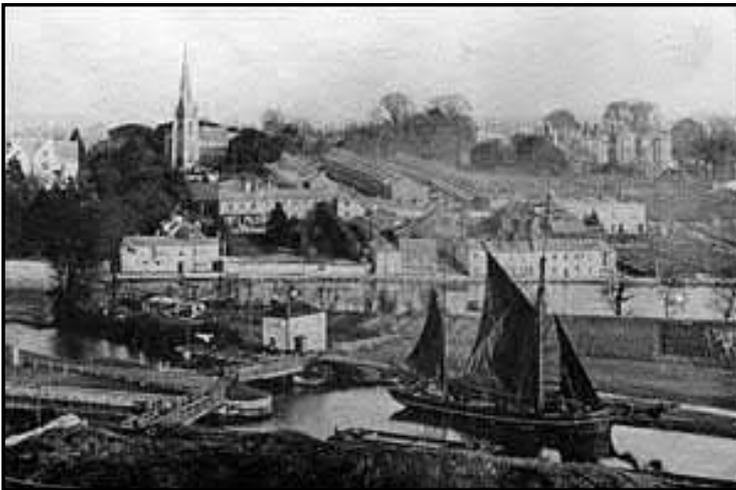
<http://www.exetermemories.co.uk>

By 1677 the Canal had been extended to join the Exe approximately where the M5 now crosses it. The new entrance could accommodate craft of 60 tons. Exeter became the fourth largest city and port in England, so in 1701 the Canal was enlarged to 10 feet 0 inches depth, able to accommodate coasting craft and vessels up to 150 tons. Also, the old pound locks were replaced by double locks, providing a greater rise in one location. A floodgate was then installed at the top end to prevent silt coming into the canal in times of flood.

In the 1750's, 500 craft were using the Canal annually with both imports and exports and in the early 1800's the amount of traffic called for extra dredging and straightening work. In 1824, the engineer, James Green suggested that it be extended again to Turf and this was supported by Telford. With a new depth of 15 feet, the new extension was opened in 1827 enabling all vessels that could cross the bar at Exmouth to enter the Canal and reach Exeter. Turf Lock, 131 feet by 30 feet was difficult to build because of soft ground, but will take craft of 14 foot draught and 350 tons. The Basin was then constructed in 1830 thus allowing ships to unload or load without having to enter the river.

Use of the Canal increased greatly, upsetting the Topsham merchants who, until 1827, had

benefitted from the transshipment of goods from larger seagoing craft to barges for the journey to Exeter. To overcome their fears, a side lock was built opposite Topsham. Completed in 1832, it measured 88 feet by 25 feet. Whether or not this helped Topsham is unclear, but it was maintained until the 1960's. The Canal, as reconstructed in 1827, had the unique feature of tow paths on both banks which made controlling large craft easier.



King's Arms Sluice with the Exeter Canal
in the foreground and the river beyond

Circa 1900

Exeter Memories

After 1844, with the arrival of the Bristol and Exeter Railway, the Canal started losing trade. It was not until 1867 that a branch was put in to City Basin which was really too late to make a difference. However, coasters continued using it until the late 1960's and the City sludge boat, The Countess Weir, until 1999.



The last time the Countess Weir visited
the canal basin in 1999.

Photo courtesy South West Water.

The Exeter Canal is now a very important leisure amenity for the locality and hopefully, with new lock gates, will continue to be so well into the future

Report by Iain Miles

*(*Editor's comment: It is very interesting to note that, according to many knowledgeable tomes mapping the routes and locations of the inland waterways of Great Britain, no canals existed or were ever constructed, south of Bristol!)*

Exeter Quay and Custom House 1855

Exeter Memories

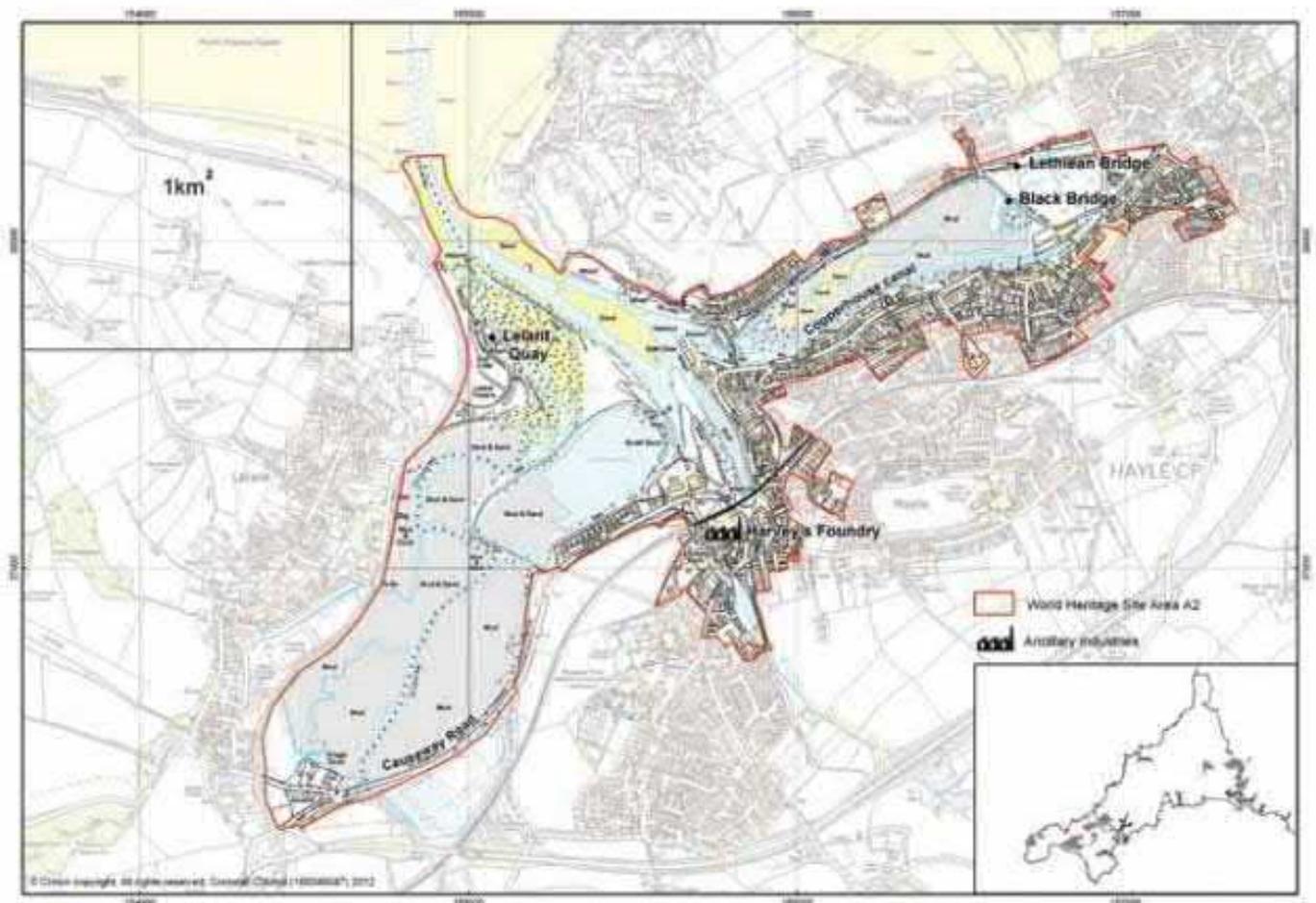


Harveys of Hayle at Bridestowe, 8 November 2017

A talk by Kingsley Rickard, writer, trustee of The Hayle Heritage Centre, and member of The Trevithick Society.

From time out of mind north Cornwall's sheltered Hayle estuary had been dotted with small settlements, trading wharves, and routes across the extensive sands. Then, around the mid 1700s came an intense phase of industrial development, and a major Cornish port was born.

Port of Hayle - Principal Sites



Ingenious alterations along the Angharrack stream in the 1750s, including a half mile long canal to serve new quays, enabled the Cornish Copper Company to expand from its original smelting operations to include a wide range of mining ancillary businesses to form the district known as Copperhouse

By the 1770s local blacksmith John Harvey settled on a parcel of land between the rivers Hayle and Penpol for an iron works, and began manufacturing cast-iron pipes and engine parts. This area became identified as Foundry.

Together, Copperhouse and Foundry, each with its distinct architectural characteristics, form the town of Hayle.

At first the CCC welcomed Harvey's business – until the success of this new enterprise was perceived to be a threat. Decades of growing wealth and influence were marked by bitter battles between the Cornish Copper Company, and Harvey's family ventures (John Harvey's son Henry, also proving a skilled manager). Both companies diversified into ship-building, steam-packet

services carrying passengers and an astonishing range of goods. The Harveys worked with engineers including William West, Arthur Woolf and Richard Trevithick - reaching a global market though manufacturing high quality pumping engines. It seemed their glory days would never end.

But, by the 1860s mining throughout the county was in decline; the Cornish Copper Company failed. Harveys foundry struggled on until 1903, when manufacturing and shipping activities ceased. Its general merchandise supplier still survives.

For much of the twentieth century Hayle looked ravaged, a failed town, an industrial wasteland. Possible investors visited, mooted bold plans and walked away. However, thanks to the indefatigable work of small preservation groups and a gradually enthused community, Hayle's industrial past has been re-evaluated as an asset, and a starting point for regeneration. Hopefully, later this year members of IASDA and SIAS will spend a couple of days in and around the town learning of what has been achieved, and what is planned since the area's recent designation as a World Heritage Site.



Historical Assessment published in 2000.

Hayle has to be considered as part of the 'integrated complex of mine, railways and ports that served each mining district. Take out part of the complex and the whole is diminished'. p14. Hayle served the Redruth - Camborne area.

In 2000 Hayle was evidently a failing town. Over the years various plans to regenerate the area came to naught. Granted world Heritage Status 2006

Although in 2014 still regarded as 'falling within the most deprived quintile across the UK', the town is very different from a decade ago, and the local community seems to be actively involved in valuing the environment. – as is evident in this book.

Kingsley Rickard's talk to the IASDA section concentrated on Foundry, with emphasis on the influence of John Harvey 1730-1803 and his son Henry.

Visit to Appledore & **BABCOCK INTERNATIONAL'S BIDNA YARD**

A joint visit was arranged, by Adrian Wills, for members of IASDA, The North Devon Maritime Museum and the RC&NDWS on the afternoon of Thursday January 25th 2018 for a talk on the recent history of this important local industry whose roots go back to 1855 at the Richmond Yard, Appledore.



Aerial view of Appledore Shipbuilders Yards
*Picture courtesy of **Babcock International***

A good turnout of members of the three societies met in the Blue Lights Hall in Appledore to hear a talk by Mr Michael Guegan, a local man who had worked in the yard from 1962 as an electrician. When he started, a large tug was being built, but sadly the firm (P.K.Harris) went into liquidation the following year. The yard was taken over by the Court Line Group which built the covered dry-dock on a green-field site in 1970 and since then nearly 123 ships have been constructed there.

Michael showed pictures and talked about many of the ships that were launched, some of which are still afloat but not now registered in the UK. Vessels included dredgers, tankers, small container ships, three survey ships for the Royal Navy and two patrol ships for the Irish Navy. Since Babcock's involvement with the yard, four more slightly larger (90 metre) patrol vessels for the Irish Navy have been constructed. The largest ship ever built in the yard was 131 metres long by 21.7 metres beam but parts for even larger ships have been made and then carried by barge to other sites where those vessels were under construction.

The talk ended at 4-00pm and we made our way to the shipyard where we re-assembled at 4-30 for an introductory talk by John Pennington, the Yard Planning Manager.

He spoke mostly about Babcock's involvement with the site for the past 12 years or so and its presence at Devonport, finishing up by talking about the



LE Samuel Beckett -Irish Navy Fisheries Protection Vessel. Launched in 2013

vessel now being completed, the fourth of a group of offshore patrol vessels for the Irish Navy, to be named “LÉ George Bernard Shaw”.

We then divided into groups of six for a tour of the yard. The building itself is most impressive and covers a huge area, not only the dock, but also fabricating areas with heavy machinery such as hydraulically powered plate rolls, all served by overhead travelling cranes. The “LÉ George Bernard Shaw” was sat on blocks being prepared for painting and will soon be ready for her launch. It was explained that every time a ship is completed and launched, the dock is of course coated in mud and has to be cleaned out before another keel can be laid.



Above left Babcock International Dry Dock - dry! (looking out).
Above left the dry dock - wet! (looking in).

This was a very interesting afternoon and much comment was made by those participating on wishing Babcock many years of continued ship building success at both Appledore and Devonport.

Thanks must go to Adrian, Hilary and Mike for organising it and to Babcock for allowing us access to the yard.

Iain Miles



‘Deltagas’ LPG tanker
built by Appledore Shipbuilders
in 1992
owned by Sloman Neptune, Germany

MV ‘Clansman’
owned by Caledonian Marine Assets Ltd.
Launched in Appledore in 1998



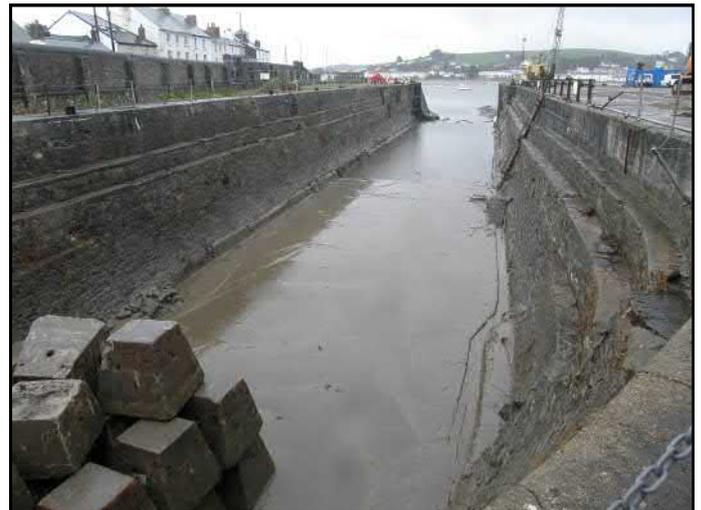
As organiser of the visit to Babcock International Shipbuilders in Appledore I apologise to those members of IASDA who would have liked to have taken part but didn't find out about it until it was too late to apply.

For various reasons Babcock was only able to allow a visit on a single day and date, and which was with very short notice to the event. However, John Pennington and his staff went out of their way to accommodate our group and make the visit as interesting as it was.

Unfortunately it is unlikely that another visit is possible for quite some time but I am optimistic that we would be welcomed again if and when the opportunity arises.

I am very grateful to the staff of Babcock International for their time and effort.

Adrian Wills



Pictured above is Richmond Dock at Appledore in 2012

The committee of **IASDA** strives to keep its membership fully informed of events and items of interest and hopes that those reading this leaflet will find it useful.

Articles on any aspect of Industrial Archaeology, local or national, which members wish to share would be gratefully received especially if accompanied by images.

Should you have articles and images which you feel should be published then please contact

Adrian Wills

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Please note that IASDA may not be held responsible for any views or opinions expressed in its publications.

