

Panel for Historical Engineering Works Newsletter

Number 107 September 2005

Contents

Delayed Recognition for Scotland's Railway Hero has Arrived at Platform 4 (*The Scotsman* headline!)

The Challenge – History in the Civil Engineering Curriculum

Historic USA Bridges Under Threat

International Symposium on Civil Engineering History and Heritage – Toronto, 5 June 2005

Scottish Fife Visit

John A Roebling 200th Anniversary – Call for Papers

Letter to the Editor

HEWs in the News

Editor's Note



Sarah Boyack (r) Clarke family & Prof Paxton © Dr S Arthur

Delayed Recognition for Scotland's Railway Hero has Arrived at Platform 4 (*The Scotsman* headline!)

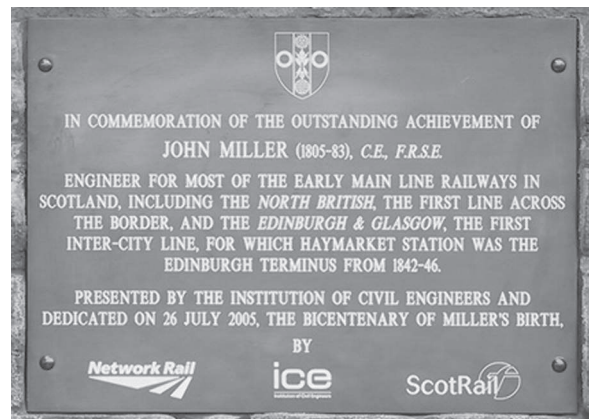
On 26 July, the 200th anniversary of the birthday of *Scottish Railway Engineer Extraordinaire* John Miller CE FRSE, a plaque provided by the Institution of Civil Engineers was unveiled in his honour at Haymarket Station, Edinburgh, by Sarah Boyack, MSP Edinburgh Central.

Sixty people attended the ceremony at the invitation of former ICE East of Scotland Region Chairman, Brian Cooper and Professor Paxton of PHEW including Miller's great, great, grand-daughter Paula Clarke, her husband Michael, and daughter Dr Natasha, who is thought to have a facial resemblance to her forebear. Press coverage included nearly a full page in *The Scotsman*.

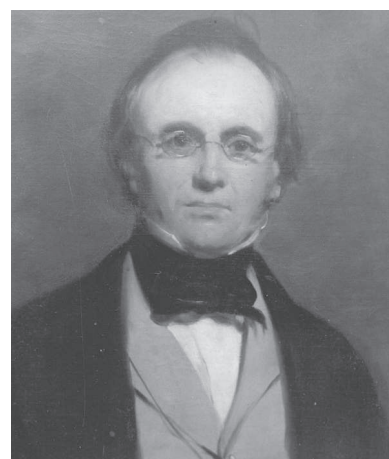
Professor Paxton introduced Sarah Boyack and invited her to perform the unveiling which she did in style, calling for Miller's legacy to be honoured by making the station the modern accessible transport hub for which she had campaigned.

Brian Cooper thanked everyone concerned for their valuable support, particularly Sarah Boyack, John Yellowlees and the staff of First ScotRail, and Duncan Sooman and Bob Gardiner of Network Rail.

The plaque is a welcome outcome of the Institution's policy of encouraging its regions to publicly promote outstanding civil engineers and their works. On being asked by Brian Cooper for an appropriate candidate, Professor Paxton on behalf of PHEW suggested Miller and Haymarket Station and was given the go ahead to organise matters.



Plaque made by Alexander Pollock Ltd. © Dr Scott Arthur



Miller, aged forty-two © Roland Paxton

To furnish a background for the occasion, the School of the Built Environment at Heriot-Watt University, where Miller's portrait is on display, published 70 copies of an illustrated short *Appreciation* of Miller by Professor Paxton based on his research over many years.

Scottish Fife Visit

by Roland Paxton

In order to promote a better understanding of traditional building materials, the Scottish Group of PHEW recently organised visits to the re-opened Cullalo Quarry near Aberdour and the Scottish Lime Centre, Charlestown.

The visit to the quarry was led by Dr Ewan Hyslop of the British Geological Survey, and geologist Norman Butcher. The re-opening of this quarry, which had first operated from c.1820 for about a century, closing as demand reduced with the increasing use of concrete, is a welcome event. In addition to providing a fine stone for new facings, the quarry provides a matching stone for long unavailable Craigleith sandstone, of which much of historic Eastern Scotland is built, e.g., Dean Bridge (Telford 1832). When I worked for the City Engineer in 1965, we were obliged to use Craigleith stone salvaged from Waterloo Bridge, London, for indents to refurbish spalled parapet stonework at Dean Bridge.

Cullalo stone was used in its own right for many prestigious works, such as Edinburgh's Melville Monument (Burn/Stevenson 1821) and St. Mary's Cathedral (Gilbert Scott, begun 1874).

As we examined the quarry's historic and current working faces, we learned from Ewan that Cullalo stone is a *uniform highly siliceous quartz arenite sandstone from the West Lothian Shale Formation of the Lower Carboniferous period*. We stood on an uncovered bedding plane where the operation of splitting off the stone was explained. Small explosive charges were carefully placed in natural fissures in order to obtain large blocks suitable for ashlar work.

The stone is slightly lighter in colour than Craigleith and not so hard. It is soft when quarried, hardens on exposure to air and is long lasting. It is readily cut on site using state-of-the-art Italian machinery with a rotating disc and wire.



Italian stone cutting machine © Roland Paxton

A cubic yard of ashlar cut into thin blocks costs about £3,000. The quarry is operated by Tradstocks of Stirling as a small scale operation with minimal detriment to the environment.

The Panel recognises the valuable input of the Scottish Stone Liaison Group and others in encouraging this venture, the only operational quarry of its kind in Scotland. It gave me much pleasure to thank Ewan and Norman for a most enjoyable and informative visit.

The visit continued at the Scottish Lime Centre, Charlestown, with Roz Artis-Young as host. She began by giving a presentation on the Centre's work and facilities, with emphasis on the properties and use of lime mortar, followed by a practical demonstration of lime slaking.

The party then went to the railway cutting from Glen Hole Quarry where Norman pointed out that the strata visible, ranging from marine to non-marine, was a magnificent example of a *carboniferous cyclothem*. He suggested that consideration should be given to interpreting it and allowing public access. Perhaps Lord Elgin might comment!

Thanks were expressed to Roz for a visit of outstanding interest and members departed feeling equipped to quarry and bed some Cullalo stone in lime mortar – well almost!

John A Roebling 200th Anniversary – Call for Papers

The American Society of Civil Engineers History and Heritage Committee will celebrate the 200th birthday of John A. Roebling with a moderated history symposium to be held 27 October, 2006 at Polytechnic University, Brooklyn Campus, New York City, New York, USA followed by a two day Roebling coach tour on 28 and 29 October, 2006 that will include the Brooklyn Bridge, the Roebling Aqueduct, and the Roebling works in Trenton, NJ

Individuals wishing to present a contribution at the symposium are invited to submit a 400 word (max) abstract (MS-Word, WordPerfect or PDF format) no later than 15 October 2005 for review.

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Letter to the Editor

Dear Sir

The Seven Rail Bridge's demolition in the late 1960s has left a persistent rumour that 15 of the spans were exported intact for construction projects elsewhere in the world. However, no one seems to know where they ended up.

The soundtrack to the newsreel on the following link mentions this ...

http://www.movietone.com/assets/BMN0627/quicktime/BM_N_92745_32.mov

Does any reader have information about their fate?

Thanks and best wishes

Mark Annand

Replies to: mark.annand@zetnet.co.uk or The Editor, address p.8

HEWs in the News

by Brian George

Weirs represent some of our oldest engineering structures and the Association of Drainage Authorities *Gazette* for Spring 2005 discussed work carried out on Northenden Weir in 2002 where it is likely that a structure has existed since the early 1300s. The present weir is a massive stone structure 60m long and 17m wide running diagonally across the River Mersey with a drop in level of over 2m.