

The Institution of Civil Engineers

Panel for Historical Engineering Works

NEWSLETTER

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The Panel's Spring Meeting 29 March 1995

The William Mackenzie Exhibition which had been a great success at Great George Street, was shortly to be transported to the Museum of Transport, Glasgow where it was to be re-opened by the Managing Director of Railtrack and the Glasgow and West of Scotland, Local Association Chairman.

It was reported that work on the restoration of the memorial of Professor Rankine had been put in hand. Costs were to be shared by the ICE, the Institution of Engineers and Shipbuilders of Scotland and Glasgow University.

The Technical Secretary reported on progress related to the development of computer-based records. He distributed a sample printout from the computerised database comparing the headings and information given with the contents of the original Record Form. There are a number of shortcomings with the program. Data cannot be manipulated and additional space is required

under certain headings. Computer Services have taken note of these additional requirements. With new software it should be possible to access and search under the various field headings. In order to speed up the rate of input, it was agreed that Panel members would be responsible for checking the factual information on the Record Forms for their areas. One member reported that he has been trying to set up direct communication between his own computer and the ICE for interchange of information.

The Technical Secretary also reported that there was now a pressing need for additional storage space for the PHEW records, as the existing cabinet is full to capacity. The Archivist suggested that copies of drawings could be stored in a plan chest drawer reserved for PHEW use, to relieve the present situation.

Outline arrangements for the Panel's annual visits to Ironbridge (1996) and London and Thames Valley (1997) were considered.

Encouraging sales figures were reported for the book series *Civil Engineering Heritage*:

Volume	08/94-03/95	Total
Northern England	out-of-print	-
Wales and Western England	174	1598
Southern England	396	1005
Eastern and Central England	353	937

Under 200 copies of the Welsh volume remain in stock and arrangements were made to discuss its revision/reprinting. Regarding the other two volumes in print, some two thirds of the initial print run have now been sold suggesting that revision/reprinting of both volumes may be necessary somewhat sooner than expected. Total sales over the recent period had realised some £10,000 of income.

References

1. *Grimsby Evening Telegraph*, 2 June 1994.
2. David Alderton, *Industrial Archaeology Review*, xvii, 1, Autumn 1994, p.90.
3. James Sutherland, *The Newcomen Bulletin*, 162, August 1995, pp.21-23.
4. Angus Buchanan, *Industrial Archaeology Review*, xvii, 1, Autumn 1994, p.90.
5. Dorothy Stewart, *The Somerset Magazine*, September 1994, p.45.
6. James Sutherland, *SPAB News*, vol.16, no.1, 1995, p.21.

The Chairman's Column Roland Paxton

By now most of our readers will be aware of the Thames Tunnel shotcreting débâcle. I am taking this opportunity to express the Panel's thanks to Sir Alan Muir Wood, James Sutherland and our representative Denis Smith, for their valuable time and effort in serving on the panel of experts set up by English Heritage to consider and report on the matter. They deserved better than at first having their investigations cut short (*New Civil Engineer*, 8 June) and then apparently having their findings ignored by the Secretary of State for the Environment John Gummer before he decided against a Public Inquiry (*New Civil Engineer*, 27 July). The disregard of these findings and London Underground Limited's unconvincing case for spending millions of pounds on shotcreting does nothing for the reputations of the bodies concerned. It is perhaps some slight comfort that the efforts to achieve a better solution have resulted in an improvement on the original proposal for total shotcreting. It is understood that now some four bays are to be retained in their original form at the Rotherhithe end of the tunnel. The most should be made of this opportunity in terms of interpretation and display. As the whole outcome would probably have been different if the bore had been listed years ago, because decisions would not have been subjected to such strong financial and operational transport pressures. The Panel will check that all important historical engineering works known to its members are listed.

Preservation work at Jessop's Laigh Milton Viaduct formally started at the beginning of June (*New Civil Engineer*, 1 June, see also *HEWs in the News*, p.7). The honours were done by Project Chairman Lord Howie who moved a block of freestone with a large excavator, the assembled gathering of sixty or so gave him plenty of elbow room!



Laigh Milton Viaduct
opening ceremony 2 June 1995 (note leaning pier 1)

The Institution's discreet name panel organised by Peter Griffiths and Mary Murphy is now displayed for all to see on the site signboard. During the past two months work has progressed well. The River Irvine has been dammed with open-graded stone fill immediately upstream of the bridge, it is designed to be overtopped if the river level rises, and the water at the bridge has been lowered to reveal foundations in better condition than had been feared. Arches 2 and 3 have now been skilfully secured and preparations are in hand for securing arches 1 and 4. Nearly £200,000 of work has been done.



Laigh Milton Viaduct
state of work 3 August 1995 looking west

Panel members in Scotland, as part of the Saltire

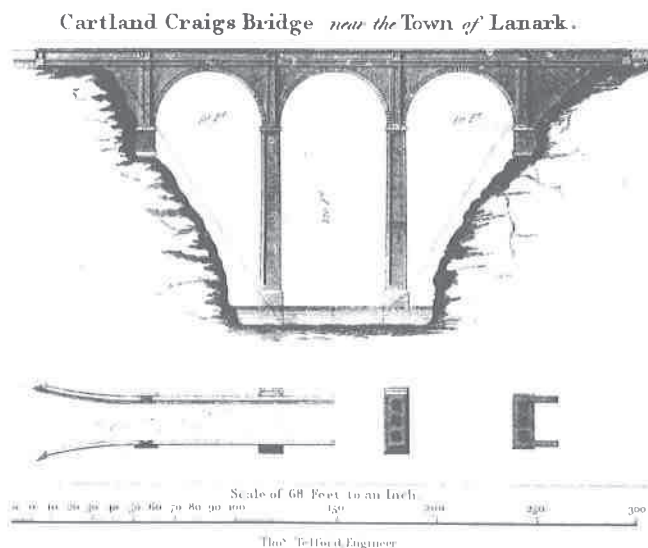
Society's Civil Engineering Awards process, are currently assessing three submissions for a conservation award this autumn. These are the widening of the cast-iron Bridge of Newe (1858); the extension of Denburn masonry viaduct in Grampian Region, and a rock stabilisation scheme which has secured the future of Telford's tallest Scottish bridge at Cartland Craigs near Lanark.

Thomas Telford - A Request for Information

Professor W F Williams

Dear Editor

Can your readers help me with the following two problems concerning Thomas Telford?



Cartland Craigs Bridge

1. In the early 1940s I was an occasional visitor to Llangollen, North Wales, and came across a suspension footbridge over the Dee about 2 miles West of the town. On the South bank was a plaque on a post claiming that the bridge had been built by Telford as a try out for the system he was designing for Menai and Conway. A post is still there but the plaque has disappeared. The people in the hotel on the North bank say that the original bridge, which they believe was built by Telford, was rebuilt in the 1920s; it certainly looks like a rebuild, not an original, though the wrought iron chains could be Telford's. The bridge, which the locals know as The Chain Bridge, is in a bad state and the local council are planning to demolish it, the cost of repair, about £60,000, being prohibitive. I can find no mention of the bridge in any of the Telford literature. Do any of your readers know anything about the bridge and its history? If it is a Telford construction, though not in its original state, should efforts be made to stop it being demolished?

2. Some weeks ago there was this question in the Notes and Queries section in *The Guardian*:

"In a recent article on the Pontcysyllte aqueduct, *The Guardian* quoted Telford as stipulating no more than three narrow-boats to be on it at one time. Why? Surely the number of boats does not make any difference to the weight on the piers?"

The questioner was not quite correct in attributing that limit to Telford. What the very short article (14 April) said was: "A passing local muttered: Five boats on the aqueduct! Telford said there should never be more than three!"

The first response agreed with the questioner, expounding on the weight of water displaced etc., later replies were nonsensical. My question to our readers is: Does anybody know of any such limit being proposed by Telford? Again I can find nothing in the literature.

In response to Professor Williams' letter Mike Chrimes (ICE Librarian) writes:

My Panel connections recently resulted in my attendance at the naming of the 94m four-span, steel reinforced post-tensioned concrete aqueduct carrying the 173 year old Union Canal over the Edinburgh City Bypass, the 'John Scott Russell Aqueduct'. As well as being a shipbuilder (which Brunel knew to his cost) Russell is believed to have been the first to observe and record the Soliton wave. His wave experiments were conducted on this part of the Union Canal c.1835 with a view to facilitating the movement of 'swift' passenger boats at 10mph! Professor Alwyn Scott performed the naming ceremony in front of a large international gathering of scientists and mathematicians attending a conference on Soliton waves, after which, an only moderately successful wave was produced in the aqueduct trough.



Union Canal
creating a Soliton wave above the Edinburgh City Bypass