

BRUNEL'S OTHER BRIDGE NEWS

January 2023



OUR AIMS

- To preserve and restore the structure to working condition for use as a crossing over the Entrance Lock for pedestrian s and dismounted cyclists.
- To explain the significance, history, and technology of the structure in the context of the Floating Harbour and Brunel's other works.
- To develop the site's educational and amenity value for all.
- To inspire interest in engineering and technology amongst people of all ages

Dear Supporter,

Welcome to the 2023 season which has started well, as you will see below.
Please put the dates of the monthly workdays in your diary, listed on page 4.

Brunel innovation meets modern high-tech

The latest modern laser scanning equipment as used on the new Hinckley Point C power station has been used to scan Brunel's innovative Swivel Bridge, courtesy of the international infrastructure group Balfour Beatty Plc.

Balfour's Digital Delivery Manager, Paco Lluna arranged for the loan of the equipment and skilled staff to operate it. On 23rd January Tom Bush and John Roderno carried out scans from 20 locations around the Bridge putting together a vast 3D digital cloud-model for use in creating accurate images, animations and 'fly-throughs'.



For the technically-minded, a Trimble X7 scanner and software were used, controlled from a portable tablet via a local W-Fi connection. The fully automated equipment simultaneously scanned and photographed, rotating 360° in three dimensions.

The photographic imaging allowed the laser scanner to be programmed to ignore objects not required in the record by recognizing colour. So green grass or the brown plywood walkways could be omitted from the scan, the blanks being infilled later. The machine was digitally self-levelling and even calculated its location in relation to previous scan-stations. Each scan took between four and seven minutes according to the definition, achieving a remarkable accuracy of 2 mm.

As well as the huge potential for static and moving imagery, the data may be able to answer some of our outstanding questions. For example, does the Bridge twist? Is the tail-wheel track a true circle? Is the Bridge centred accurately on the track? It is almost impossible to answer these questions by measurement so we are hopeful that Paco, Tom and John can expand our knowledge.



Thank you Balfour Beatty! Thank you chaps! We look forward to seeing the results.

Three New Papers

The Newcomen Society for the Study of the History of Engineering and Technology is an international learned society that publishes peer-reviewed papers on important engineering subject worldwide. Editor Julia Elton of Clevedon Court has arranged for three papers on Brunel's Swivel Bridge to be published together in one volume of the International Journal accompanied by an introductory paper.

The titles are: *History and Heritage* by Dr. David Geenfield.
Inspection, Survey, & Renovation by Robert Watkins
Preservation Practicalities by Geoff Wallis

See www.newcomen.com for information on how to join the Society and download papers.

Structural Engineering Consultancy

Last spring we reported that funding was in place to carry out the design of structural repairs to the corroded wrought iron deck of the Swivel Bridge.

A consultants' brief has been agreed, Council's Building Practice are waiting to procure the work, specialist firms are ready to tender, and Historic England and Bristol City's Community Partnership Fund are keen to see their monies expended this financial year.

However, the matter was referred to the Natural & Marine Environment Departmental Management Team meeting in June, supported by a report from Harbour Master Tony Nicholls. It then went before the 'Management of Place' Programme Board meeting on 19th August, with a report by Jon Severs, Senior Policy Advisor, Department for Communities and Local Government. Jon Severs has also consulted with senior members of Regeneration, Parks, and Property departments in the Council.

We have not been consulted, nor received any feedback on this process, so Councillor Katy Price (Green Party, Clifton Ward) kindly made enquiries on our behalf, even though the Swivel Bridge is not in her ward.

Jonathan Severs, BCC's Senior Policy Advisor replied, 'I'll check in with those colleagues. We do need to ensure we're all coordinated on this important asset.'

Last year we started out simply inviting the Harbour Team to accept £50,000 grant monies for design work on the Swivel Bridge, which we had negotiated for them. The consultation has now widened to longer-term policy issues, which we welcome, and we look forward to receiving a comprehensive policy report in the near future.

MV Balmoral

The City Council's Cabinet considered budget cut proposals on 24 January, and now final decisions about the 2023/24 budget will be taken by Full Council at its budget-setting meeting on 21 February 2023.

Proposals include an intention to make the Harbour self-funding by significantly raising fees and charges for ships, some of which are historic and owned by charities. Although historic vessels provide vital visual and historic interest in the Harbour, appreciated by visitors and Bristolians alike, there are no plans to exempt them from the new charges, or discount their fees.

The MV Balmoral, a Member of the National Historic Fleet, is currently moored outside the Industrial Museum. Trustee of the MV Balmoral Fund Ltd. David Bassett has written to the Council as follows:



'We must make you aware that if the charges were to apply to this vessel this would hit us very hard, and could well result in us having to give up on any intention to stay in Bristol and in practice would mean disposing / scrapping the ship.'

The MV Balmoral is an important ship and its loss would be a serious loss to the world of shipping, and to Bristol.

Arts Hub in Broadmead

Global Goals Centre and *Artspace Lifespace* announce they will be working together to create an exciting new arts and sustainability hub in Broadmead – *Sparks Bristol*.

Their ambition is to create a vibrant venue where local people and visitors can shop, recycle and explore what a greener, fairer and creative future could look like. It is planned to open in April in the old M&S building for at least 6 months until the site is redeveloped.

By-Election

Following the resignation of the Hotwells and Harbourside Ward councillor, a by-election will take place on 2nd February.

BOB Project Manager Geoff Wallis attended hustings on 17th January in Hotwells Primary School to meet three candidates: LibDem: Stephen Williams, Green Party Pat McAllister and Labour Eileen Means. Asked if they supported the BOB project, all three responded positively and enthusiastically.

Vols Workdays 2023

The graffiti is back, the weeds are growing, rubbish is building up in the corners, and we have an exciting programme of work to do on the Bridge. In fact our method statement submitted to the Harbour Master runs to fifteen activities, so your help is needed.

We meet monthly, nominally on the third Saturday, but please check our website for changes: www.brunelsotherbridge.org.uk Dates for your diary:

February	18th	June	17th
March	18th	July	15th
April	15 th	August	19th
May	20th	September	16th
		October	14th

Remember the Clean Air Zone is now in place so go to the government's clean air zone pages to check if your vehicle will be charged. <https://www.gov.uk/clean-air-zones>

A BIG THANK YOU TO OUR VOLUNTEERS FOR YOUR ONGOING SUPPORT

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