

Season's Greetings to all Friends

A View from the Bridge

for the Friends of the Union Chain Bridge
December 2025

ISSN 2753-698X

Our Patron
Professor Roland A Paxton
MBE FICE Hon DEng PhD MSc

June 29th 1932 – October 30th 2025



Professor Roland Paxton, Patron of the Friends, pictured on the Union Chain Bridge on July 6th 2023
Photograph by Jim Gibson

We were deeply saddened to learn of the death of our Patron and mentor, Professor Roland Paxton, on the 30th October 2025, after a short illness. Professor Paxton had been a Patron of the Friends since their inception in 2014, having given the keynote speech at a launch event in Paxton House.

Professor Roland Arthur Paxton

Edward Cawthorn, Honorary Secretary and friend

The Friends' Trustees were deeply saddened to learn of the death of our Patron and mentor, Professor Roland A Paxton, on the 30th October, after a short illness. Until very recently, he had been active in his office at Heriot Watt University where he had held an Honorary Professorship following his retirement from Lothian Regional Council.

I first met Roland at the launch of the Friends of the Union Chain Bridge in 2014 when he gave an inspirational talk on the history of the Bridge, its designer and engineer Samuel Brown and the pressing need to save it from what was at that time the very real threat of closure (or, at least downgrading to pedestrian-only use). He became one of our first three Patrons, with the late Gordon Miller and Brian Whittle, and worked tirelessly, enthusiastically and, perhaps most importantly, *persuasively*, in support of our campaign for the Bridge's restoration.

In preparation for the Bridge's bicentenary on the 26th July 2020, Roland had – through his extensive engineering network here in the UK, in the USA, Japan and Norway, brought together an impressive group of eminent civil engineers and historians, for a day-long Symposium in Horncliffe to publicly celebrate, advance knowledge and inform the future role of what he described as “Captain Brown's innovative masterpiece” on its Bicentenary.

Disappointingly, his meticulous planning came to nought (or almost so) when the Covid-19 restrictions required the cancellation of the event. Undeterred, however, the talk synopses which, at Roland's prescient request, the several speakers had submitted in advance of the event were brought together into a celebration book – *Spanning the Centuries – An illustrated anthology celebrating the influence and heritage of the Union Bridge on its Bicentenary* - which Roland edited with his usual meticulous attention to detail. Its launch was to have coincided with another event postponed by the Covid restrictions – the unveiling of a superb plaque promoted and masterminded by Roland and sponsored by the civil engineering institutions of the UK, USA and Japan. Fortunately, that plaque was finally unveiled at a ceremony on the 6th July 2023 when a delayed and modified Symposium was held at Paxton House. The plaque, now mounted on a plinth on the Scottish side of the Bridge, is lasting testament to the work of Roland Paxton and his extraordinary support for the Bridge. It was at the Paxton House symposium that Professor Paul Jowitt memorably referred to Roland as ‘The David Attenborough of Civil Engineering’; an epithet that we know amused Roland; and we believe that he was really quite delighted, in his usual modest way, to have been so described.

We saw Roland twice during this last year - on the 18th April, when he joined Otilie Hunter, daughter of our former Chairman, Robert Hunter, in unveiling a Foundation Stone bicentenary plaque (also delayed by Covid) on the English side of the Bridge (*see our July Newsletter*); and on the 10th August when, with his daughter Adele, he came down from Edinburgh especially to join the Friends on their river trip from Berwick to the Bridge (*left, with the Honorary Secretary*).



Thank you, Roland, for everything you did for the Friends in the course of your 11-year relationship with us. We are incredibly fortunate to have enjoyed your Patronage and friendship and will continue to benefit from your extraordinary legacy. We extend our condolences to Roland's family and especially to his daughter, Adele, who had cared for her father for these last three years.

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Extraordinarily and significantly, Roland Paxton's legacy was marked in Parliament through an Early Day Motion on the 4th November, the text of which we reproduce on the following page, together with an Obituary from the ICE Scotland Museum, which its author, Professor Paul Jowitt has kindly permitted us to use. Professor Jowitt's *Laureation* of the 17th July 2003, referred to in the Obituary Note, is also reproduced in full.

The Friends' first Chair, Heather Thompson, her father, Willie Robson of Chain Bridge Honey farm, our Trustee, Stephen K Jones and Dr Hiroshi Isohata of the Japanese Society of Civil Engineers contribute their personal reflections on pages 4 and 5.

An affectionate Obituary, using Jim Gibson's photograph on page 1, was carried in the *Daily Telegraph* on the 12th November, and BBC Radio 4's *Last Words* of 21st November, also broadcast a piece, with a contribution by Professor Jowitt.



**UK Parliament
Legacy of Professor
Roland Paxton MBE, FICE, FRSE
Legacy of Professor Roland Paxton MBE,
FICE, FRSE**

EDM (Early Day Motion)2217: tabled on 04 November 2025

Tabled in the 2024-26 session.

This motion has been signed by 3 Members. It has not yet had any amendments submitted.

Motion text

That this House notes with deep sadness the passing of Professor Roland Paxton MBE, FICE, FRSE on 30 October 2025; recognises him as the United Kingdom's leading civil engineering historian and a tireless advocate for the preservation of engineering heritage; acknowledges his distinguished career, including service with Lothian Regional Council, his appointment as Honorary Professor at Heriot-Watt University, and his prolific research and publications which advanced global understanding of civil engineering history; pays tribute to his leadership as Chair of the Institution of Civil Engineers' Panel for Historical Engineering Works and his receipt of the ICE Gold Medal; commends his pivotal role in saving historic structures such as the Ligh Milton Viaduct, the world's oldest surviving railway bridge, and the Union Chain Bridge, the oldest suspension bridge still carrying road traffic; further notes his creation of the ICE Scotland Museum and the Paxton Archive, safeguarding over 400 historical papers; and celebrates his enduring legacy as a champion of engineering heritage whose work will inspire generations to come.

Dr Arthur Scott
Lab Edinburgh South West

Jim Shannon
DUP Strangford

Adam Jogie
Lab Newcastle under Lyme



Obituary Note:
Professor Roland Paxton
MBE, FICE, FRSE, Hon
DEng, PhD, MSc, Civil
Engineer and Engineering
Historian and Bibliophile
1932-2025 by Professor
Paul Jowitt, (*below*)

It is with great regret that I have to inform you of the death of HWU Honorary Professor Roland Paxton, on 30th October 2025, aged 93. Roland was without doubt, the UK's leading Civil Engineering Historian.



[see the Heriot Watt *Laurentian* reproduced in full on pp 4-6]

When he retired from the Transportation Department in Lothian Regional Council in 1987 he was offered an Honorary Research Fellowship by HWU at my suggestion. It wasn't long before Roland was publishing papers at engineering meetings and conferences and his post upgraded to Honorary Professor. At the time we were able to provide all staff a small travel grant for conference attendance, and he soon came to me to say he'd been by contacted the Societies of Civil Engineers in Japan and the USA to give keynote presentations there on his research on Civil Engineering History. This led him to needing a Passport – he hadn't got one! He soon became one of the Department's leading authors of world class research papers, very handy for successive Research Assessment Exercises. In 1996, for his work in Civil Engineering History and Conservation of Engineering Works, he was Awarded an MBE. He Chaired the ICE's Panel for Historical Engineering Works for many years and was awarded the ICE's Gold Medal.

By the mid '90s he was campaigning against the deteriorating condition of the Forth Bridge, a topic picked up by Tam Dalyell MP (see Hansard 17/4/96, col 740). In 1992 he had discovered the world's oldest surviving railway bridge, the 1811 Ligh Milton Viaduct on the Kilmarnock and Troon Railway, a derelict masonry bridge over the River Irvine in Ayrshire. Unfortunately, the railway had long since gone and the viaduct was on the verge of collapse. Undaunted, Roland set up the Ligh Milton Viaduct Conservation Trust, and then personally bought

the bridge for a pound and raised the £1.1m to restore it*

If that wasn't enough he then got involved in the restoration of the Union Chain Bridge over the River Tweed, between Northumberland in England and Berwickshire in Scotland **

When it opened in 1820, it was the longest wrought iron suspension bridge in the world with a span of 449 feet (137 m). It is still the oldest to be still carrying road traffic. Roland Paxton was Patron of the Friends of the Union Bridge ***

Together with the two local Councils either side of the Tweed, Northumberland County Council and Scottish Borders Council, they co-funded the bridge restoration alongside funding from the National Lottery. Roland has been no stranger to helping save historic bridges. The natural world has Sir David Attenborough. Civil engineering has had Roland Paxton!

The Institution of Civil Engineers Scotland Museum at Heriot Watt is home to a collection of over 670 artefacts relating to civil engineering, many of which have strong local connections including a number of items relating to the Forth bridges. In addition to the collection of artefacts, the website hosts The Paxton Archive which comprises over 400 papers and other documents on a wide variety of historical and biographical civil engineering topics mostly written by or about Professor Roland Paxton over several decades****

The collection is owned by the Institution of Civil Engineers (ICE) and under an agreement between the Museum and Heriot-Watt University the collection is hosted by the University. Roland Paxton was largely responsible for the creation of the Museum in the mid 1990s.

*Professor Paul Jowitt
CBE FREng FRSE FICE*

*(<https://www.nationaltransporttrust.org.uk/heritage-sites/heritage-detail/laigh-milton-viaduct>)

**(https://en.wikipedia.org/wiki/Union_Chain_Bridge).

***(<https://unionbridgefriends.com/>).

****(<https://ice-museum-scotland.hw.ac.uk/the-paxton-archive/>).

We are grateful to Professor Jowitt for his permission to reproduce the above Tribute and the Heriot Watt Laurentian, which appears on pages 6, 7 and 8 below.



A Tribute from Dr Hiroshi Isohata

Japanese Society of Civil Engineers
Former Professor, Nihon University, Chiba, Japan

My good friend and excellent teacher

Roland was not only a good friend but also an excellent teacher for my studies on engineering history and heritage.

The first time I met Roland was in 1992 at a conference held in London jointly by JSCE and ICE, which honoured Richard Brunton, who contributed to the construction of modern lighthouses in Japan. At that time, Roland encouraged me to publish in Japan a book he had edited, "A 100 Years of the Forth Bridge," to commemorate the 100th anniversary of the Forth Bridge. The Japanese edition of this book, translated by several people including myself, was published the following year. During the creation of this Japanese edition, I visited Edinburgh several times and had the opportunity to hear Roland's opinions on the original book's content and also enjoyed visiting the Forth bridge with him.

Since then, I have come to learn about many of the engineering heritage conservation activities Roland has been involved in. In June 1996, the Committee on the History of Civil Engineering of JSCE invited Roland to Japan and asked him to give a lecture on the conservation project of the Laigh Milton Viaduct near Kilmarnock.

Over more than 30 years of interactions with Roland, including the preservation of the Union Suspension Bridge, I learned a great deal about engineering heritage conservation.

I would like to express my gratitude to Roland for sharing with me fascinating, enjoyable, and intellectually stimulating times discussing engineering history and heritage.

*Hiroshi ISOHATA,
PhD. Eng., Fellow of JSCE*

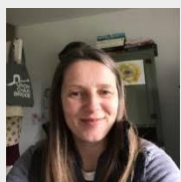
Friends' Trustee, Stephen K Jones, writes:

I first met Roland at a talk he was giving a talk in London in the early 1990's. We had a mutual acquaintance, the late Arthur Turner who was researching Redpath Brown (a different Brown but one still connected with early suspension bridges!) and it was great to talk about that with Roland. We would later meet up at meetings of the ICE Panel for Historical Engineering Works, which Roland chaired for many years. More recently for the Union Chain Bridge bicentenary book and the opening ceremony we frequently talked on the telephone and I miss that depth of knowledge Roland brought to any conversation. He was always cheerful; not only have we lost an exceptional historian and civil engineer but a man who was helpful to everyone, not least his fellow researchers - a true gentleman. SKJ

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Heather Thompson, our first Chair, in 2014, contributes her own personal reflections:



Professor Roland Paxton led a visit of the Institution of Civil Engineers' Panel for Historical Engineering Works to the Union Chain Bridge on 7th July 2013. I

was able to meet him and ask him if he could support our campaign to restore the bridge. He kindly agreed. When we had our inaugural Friends meeting the following year he was the guest speaker. His energy, knowledge and enthusiasm helped the campaign enormously. He spread the word to the USA and Japan, culminating in the presentation of a plaque from the institutions of civil engineers of both countries. I am grateful for everything he did to help. He was highly esteemed in his field, yet so down to earth and approachable. I really appreciate his daughter Adele bringing him to visit the bridge (and the honey farm) in his later years. He will be very much missed.

Willie Robson, proprietor of Chain Bridge Honey Farm, adds:



I have had the good fortune to have known Roland Paxton for a few years, while the bridge was being repaired. Being a very practical person, I was interested in everything

he had to say about his lifetime in engineering, no politics and no philosophy, just knowledge. I was always pleased to see him and listen to him at our table and will remember him with gratitude for his engaging personality and steadfast ability.

There is a specially-commissioned panel at Chain Bridge Honey Farm in appreciation of Roland Paxton and his connection with the Union Chain Bridge.

From our archive:

The *Daily Telegraph* obituary of Roland Paxton includes a story which he recounted to us some time ago – that of a half-proved urban myth that, during the construction of the Glenfinnan Viaduct on the West Highland railway, a horse and cart had tumbled into one of the concrete pillar voids and were entombed. Investigations of the piers using fish-eye lenses produced no evidence of the horse and cart, but working on local hearsay, Roland Paxton arranged for a state-of-the-art laser scan of pillars on another viaduct further up the line. Sure enough, the scan, through walls up to 9 feet thick, produced a clear image of the unfortunate horse. The same technology was used in 2018 by Roland's friend and colleague, Dr Colin Stove of Adrok Ltd of Leith, and the following report was contained in our *Newsletter* of July 2018:

Radar scan survey

The three-week closure [of the Bridge, for pre-restoration survey] also allowed an opportunity for our Patron Prof Roland Paxton of Heriot Watt University, with the ready agreement of NCC, to arrange for Dr Colin Stove and his colleagues from Adrok, an Edinburgh-based geophysical services company, to investigate – pro bono - the location and state of the Scottish-side anchors, for which no reliable data exists. The state-of-the-art atomic dielectric resonance process allowed the team to scan the ground to a depth of 12m, to locate the anchors and chains. Prof Paxton has worked with Dr Stove for many years and the team was responsible for the discovery, in 2001, of an entombed horse and cart which had fallen deep into the core of the central pylon during the construction of the Loch-nan-Uamh viaduct on the West Highland line in 1897. The result of the Bridge investigation is awaited. Prof Paxton said: "Our anchorage investigation venture has the potential to inform decision-making on the Bridge's refurbishment and conservation, and to provide educational and promotional opportunities for a better understanding of the role of this historic international landmark in suspension bridge development"



Michael Robinson and Dr Colin Stove of Adrok investigate the Scottish anchors with Friends' patron, Professor Roland Paxton

[Editor's note: The results of the Adrok survey were as encouraging as those at Loch nan Uamh. Dr Stove's atomic dielectric resonance survey produced an image clearly correlating with a notional model of a 2-ton iron ballast plate on each side of the Scottish approach, at a depth of approximately 7.5m. The works undertaken during the restoration did not excavate to that depth and the two ballast anchor plates remain under the huge new reinforced concrete anchor block which has replaced them.]



HERIOT-WATT UNIVERSITY

LAUREATIAN

BY PROFESSOR PAUL JOWITT • THURSDAY 17 JULY 2003

Chancellor, I have the honour to present, for the degree of Doctor of Engineering, Professor Roland Arthur Paxton. It is often said that an Accountant is someone who knows the cost of everything and the value of nothing. Roland Paxton is not an accountant. Roland Paxton is a Civil Engineer, and a Civil Engineer is someone who knows the value of everything but importantly, how to strike a bargain. I will return to this later, but I simply ask all of you here today to imagine what is the best bargain you could get for a pound? While you are all thinking about that, I will tell you that Roland Paxton is a Jekyll and Hyde character. He has led two lives, which explains why he is still a young man in his prime despite his three score years and ten.

Roland was born in 1932 in Altrincham Cheshire, attended Altrincham Grammar School and then went to work as a Cartographical Surveyor for the Ordnance Survey until 1955. During this period he had a brief spell of National Service in the Royal Artillery – an odd choice for a man who would become – and as you will hear in a moment – a leading Conservationist.

From 1955 he worked as a Civil Engineer in Local and Civic Government, engaged on the planning, design, and construction of major drainage, sewerage, road and bridge works. After studying civil engineering part-time he graduated in 1959 from the Manchester College of Science and Technology, now UMIST – whoever said part-time learning was the educational innovation of the 21st century? And as a member of the British Speliological Association – a society devoted to the study of caves – he surveyed the newly discovered and immense East Gill cave system in 1954.

Roland Paxton is by nature a keen and accurate observer – most of us are content just to look at things, but Roland Paxton has acquired a far better gift – that of being able to see things and recognise their importance. And if all the new Heriot-Watt Graduates here today, whatever their discipline, emulate that skill – of being able to see and observe rather than just to look and spectate – then their contribution to society will be all-the-more useful.

Roland's first civil engineering task was at the then state-of-the-art extensions to the Davyhulme Sewage Treatment Works in Manchester. He was introduced to six ladies of the night, whose names were Mabel, Doris and so on. Actually Mabel and Doris were really just 2 of 6 very attractive and very new 1250HP dual fuel (sludge gas or diesel) pump engines and were named – unbeknown to the Manchester City Fathers – or maybe not! – after some well-known local ladies of pleasure.

(In a Lancastrian accent)

"Paxton: If you go over there you'll find two sewers. Make arrangements to have their effluent introduced to the new works via that Pumping station".

And so he did. The two sewers turned out to be 13ft and 10 ft in diameter and running 2/3 full of the foamy brown stuff. It might have been "heavy" but it wasn't Boddingtons Best...

After that job was done he then went on to oversee the Leicester Eastgate Ring Road Underpass, the River Soar Flood Relief Scheme and from 1965 until his retirement in 1990, he was Senior Principal Engineer with Lothian Regional Council.

In Edinburgh, Roland Paxton worked in a variety of Highway and Transportation projects, including the planning of the Western Approach Road (partially along the lines of the former Caledonian Railway), the part Pedestrianisation of Princes Street and the development of a Cycle Path along part of the former Edinburgh and Dalkeith Railway. In so doing he was responsible for preserving Scotland's oldest railway tunnel at St Leonard's and the oldest surviving Beam Bridge at Braid Burn.

Here then are the clues to the other side of Roland Paxton's character.

Put simply, Roland Paxton is Britain's leading civil engineering historian, in fact, he is probably the world's greatest living expert on the history of civil engineering. You see, for all the time he was carrying out a very successful, though if he will forgive me for saying so, rather a normal career for a leading Civil Engineer, Roland was developing an unequalled body of knowledge about civil engineering history, infrastructure, and its contribution to society. This was accompanied by his voracious appetite for collecting associated books, articles and memorabilia, to the extent that he probably has one of the largest, most comprehensive and historically valuable private collections in the UK and beyond. It has at times led him to contemplate a structural re-assessment of the load-bearing capacity of his loft.

Roland's library and collection of memorabilia consumes not only a large part of his life but also every corner of his home. It is just as well that Roland has enjoyed the unstinting support for the last 47 years of his wife, Ann. We are delighted that Ann is here today. We also welcome his daughter Karen – an Architect with her own art and design practice in the Lake District, and her husband and their two children, Ben and Kirstin, both of whom are talented young flautists. Roland's other daughter, Adele, is a Lawyer-turned-accomplished International Opera Singer who has sung with José Carreras at the Royal Opera House, Covent Garden. Adele now lives and works in Connecticut but is unfortunately unable to be with us today.

Roland's passion is not just that of an addictive and acquisitive collector of books. They have become a personal database of unparalleled importance and which he deploys with great skill and effect in his conservation work. His knowledge is encyclopaedic and his mental search engine of his collection is quite unbelievable. Google? The World Wide Web? Forget it!

In 1990 Roland retired from Lothian Regional Council and came — at my invitation as the then Head of Civil Engineering at Heriot-Watt - to become an history Honorary Senior Research Fellow, and later an Honorary Professor – to pursue his interests in Civil Engineering history and heritage issues. And, just as importantly, to help imbue our students with an appreciation of the heritage and contribution of their chosen profession. His lectures on the history of civil engineering continue to be an invaluable and much appreciated feature of the first year course.

Roland Paxton has had a long connection with Heriot-Watt. In 1975 he was awarded — again after studying part time — an MSc for his thesis on the life of Thomas Telford — the first President of the Institution of Civil Engineers, designer of the Dean Bridge in Edinburgh and the Caledonian Canal. His external Examiner was Professor Sir Alec Skempton FRS of Imperial College.

And 24 years later, in 1999, he was awarded a PhD for a brilliant thesis on the work of the Scottish engineering dynasty of engineers — the Stevenson family — which included the author Robert Louis Stevenson and his grandfather Robert Stevenson, the designer of the Bell Rock Lighthouse.

Roland's external examiner was again the legendary Alec Skempton. I was, if only nominally, Roland's PhD supervisor. At the PhD viva, my role was to help Skempton to make the coffee...

In between all this he co-authored, edited and published a book — "Bright Lights — the Stevenson Engineers 1752-1971" — as well as writing several contributions to the Dictionary of National Biography. If there was an example of the saying "if you want something doing, ask a busy man", Roland Paxton is that example.

There isn't time today to give a complete list of Roland Paxton's scholarly and conservation contributions to the enlightenment, recording, preservation, conservation and the wider appreciation of the world's civil engineering heritage, so I will confine this to a tale of two bridges — The Forth Bridge (which is an international icon of both Civil Engineering and Scotland itself, and which almost everyone here will have heard of), and the Laigh Milton Viaduct, which I guarantee almost no-one here has heard of.

If the Forth Bridge is the world's most famous railway bridge, where, might you ask, is the oldest? Until Roland Paxton demonstrated its provenance in 1992, no-one knew it was somewhere near Kilmarnock: the 1811 Laigh Milton Viaduct on the Kilmarnock and Troon Railway. Unfortunately, the railway had long since gone and the viaduct was on the verge of collapse. In fact it was about to fall down.

Undaunted, Roland set up the Laigh Milton Viaduct Conservation Trust, and then personally bought the bridge for a pound. Can you imagine his wife's reaction when he came home that day and said:

"Ann? Ann! I've bought this bridge for a quid. It's in the middle of nowhere and it's going to cost a million pounds to restore it. A bargain... What's for dinner?"?

He then set about — and succeeded — in raising the £1.1m pounds to restore it. The Kilmarnock and Troon Railway might no longer exist, but the bridge is now resplendent. Railtrack/Network Rail? eat your heart out...

Which brings me neatly to the Forth Bridge, which celebrated its centenary in 1989. Roland Paxton organised the Forth Bridge Centenary Symposium — including a bridge design competition for schools and in which he inveigled me into being a judge — and he gave the opening lecture at the Edinburgh International Science Festival in 1990.

He edited the defining modern text on the Forth Bridge which has now become a collector's item, including a version translated into Japanese. And when, after railway privatisation, the Bridge's repainting schedule fell far

behind that required, Roland Paxton was instrumental in successfully campaigning for its proper maintenance. In 1996 he was appointed to an MBE in the Queen's New Year's Honours list for services to the history of civil engineering. He is a Fellow of the Royal Society of Edinburgh. From 1992-2002 he served on the Royal Commission on the Ancient and Historical Monuments of Scotland — the first Civil Engineer to do so. He is a Trustee of the James Clerk Maxwell Foundation, a former President of the Edinburgh Bibliographical Society, a Founding Trustee of the Forth Bridges Visitor Centre Trust, and Chairman of the Institution of Civil Engineers' Panel for Historical Engineering Works.

In 1999 he was awarded the Institution of Civil Engineers' Garth Watson Medal in recognition of his crucial work on the history of civil engineering and the preservation of civil engineering heritage. In 2001 he was awarded their Robert Alfred Carr Medal for his paper on the Millennium Link — the £78m Regeneration of the Forth and Clyde and Union Canals Restoration, characterised by the emblematic Falkirk Wheel.

As well as giving innumerable invited lectures in the UK, he has undertaken many invited lecture tours overseas — particularly in the USA and Japan, where he has become almost as well known as he is in Britain. He was named by the American Society of Civil Engineers 'College of Fellows Lecturer for 2000' and was recently awarded their 2003 History and Heritage Award, the first non-US citizen to be so honoured. Roland Paxton has made major contributions to civil engineering history, the understanding of its rich heritage, and the conservation of many engineering artefacts that have contributed to a civilised society. And so, Chancellor, in the name of the University and by the authority of the Senate, I invite you to confer the honorary degree of Doctor of Engineering on Roland Arthur Paxton.

We are grateful to Professor Jowitt for allowing us to reprint this Laureatian as part of his ICE Obituary Note. Although it dates from 2003, and Roland Paxton accomplished so much more in the following 22 years, including his enthusiastic espousal of the Union Chain Bridge, it serves as a wonderful, and often amusing, biography of Roland's career up to that time.



Summer Events

The Friends enjoyed two social events during the summer.

River Boat Cruise – 10th August

In glorious weather on a summer Sunday afternoon, some 35 Friends and their guests enjoyed a cruise on the MV *Border Belle* from Berwick quay to the Union Bridge.



The river cruise lasted two hours and took in the three bridges of Berwick, the A1 by-pass bridge and the watermeadows, flora and fauna of the lower reaches of the Tweed; all from a different perspective, including the substructure and under-decking of the Bridge itself.

We hope to arrange further river trips.

Bicentenary +5 Ceilidh – 26th July



This year's "Bicentenary+" event (+5), on the 26th July, was a repeat of the successful 2024 Ceilidh in Horncliffe Memorial Hall.

To the rousing sounds of a strong Glendale Ceilidh Band, and with the encouragement of legendary caller, Alistair Anderson, some 40 Friends and other guests enjoyed a lively ceilidh, with a pan-haggerty supper supplied by the Hall Committee.

...and Bicentenary+6

The Trustees are now considering options for the "Bicentenary+6" celebration, on Sunday 26th July 2026.

We would welcome ideas from Friends, and for events in the following years.

Doors Open and Heritage Open Days

The Friends participated in both the Scottish *Doors Open* and the English *Heritage Open Days* in September. We believe that the Bridge was the only venue in the UK to be open in both events.



Doors Open Days on the 6th and 7th September attracted visitors for guided

walks across the Bridge; while the *Heritage Open Days* on the 20th and 21st September were restricted to static talks on the English side because of the Bridge warranty closure.



Restoration Warranty Works

We reported in the July Newsletter that the Bridge was to be closed for five weeks at the beginning of September, to allow snagging works to be undertaken at the end of the restoration contract warranty period.

In the event, the closure lasted only three weeks and we understand that, apart from the need to replace a number of defective GRP decking panels, little work was necessary – some painting touching-up and minor attention to the chains on the top of the two pylons.

We were, though, pleased to greet old friends from Spencers - Alistair Sceats, Simon Rotherforth, Paul Taylor and Alan Milton – during the course of the works.

Earlier in the summer, Clarke Lawson and Numa Granda Bonilla had also called to pay their respects to the structure on which they had worked for almost three years.



Welcome back to old friends; Spencers' Alan Milton and Simon Rotherforth were part of the warranty snagging team.



FALLAGO
ENVIRONMENT
FUND

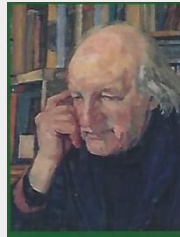


Federated
Hermes

Friends' Archives and Fallago Environment Fund Grant

We were pleased to accept a request from the Estate of our late Patron, Gordon Miller, to add his extensive research archive to the records we have collected and generated over the past ten years.

Gordon Miller (*right*) spent almost half a lifetime – over 40 years – researching the Bridge and the life and career of its designer and engineer, Capt Sir Samuel Brown; in the course of which he undertook extraordinarily intensive research and amassed a huge amount of documents, including correspondence, photographs, plans and reports, the care and cataloguing of which is well beyond our limited means and capabilities.



In addition to the Miller archive, we have our own more - much more - modest, archive as well as a virtually day-to-day photographic record of the restoration work undertaken on our behalf by Jim Gibson.

To ensure that the combined archive is properly curated, preserved and available for unrestricted research, we have arranged with the Berwick Record Office, through its archivist Linda Bankier, to catalogue and store it, in both paper and digital form (where appropriate) on deposit, so that it remains in the ownership of the charity but is available for public reference and research. Digital copies of the archive will be offered to the Scottish Borders Council's Hawick Heritage Hub.

We have been fortunate to receive a grant offer of £3000 towards the £6000 cost of the archive cataloguing and document preservation and storage, from the Fallago Environment Fund.

The Fallago Environment Fund shares the benefits of the Fallago Rig windfarm in the Lammermuir Hills with projects that enhance the natural, cultural and built heritage of the Scottish Borders. The Fund is financed by Roxburghe Estates, Federated Hermes and EDF power solutions and has donated over £2 million to over 170 projects across the region since its formation in 2013. The Fallago Environment Fund is administered by Tweed Forum with grants allocated twice a year. Further information is available via tweedforum.org

The balance of the archiving costs will be met by the Friends.

AGM Diary Date

The Annual General Meeting of The Friends of the Union Chain Bridge will be held on Thursday March 12th 2026 at 7pm in the Horncliffe Memorial Hall, Berwick-upon-Tweed.

It is intended that a Zoom facility will be available for Friends unable to attend the Meeting in person.

The Trustees of the Friends approved the Annual Report and Accounts for the year ended March 31st 2025 at their meeting on the 13th November; the Accounts will shortly be available on the Friends' website at www.unionbridgefriends.com

The opinions and views expressed by contributors to this Newsletter do not necessarily reflect those of the Trustees.

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www.unionbridgefriends.com

Vacancies for Honorary Secretary and Friends' Newsletter

The posts of Honorary Secretary and Editor of the Friends' Newsletter *A View from the Bridge* will become vacant on March 31st 2026; anyone – Friend or otherwise - interested in either of these positions is asked to speak to Edward Cawthorn, Honorary Secretary as possible, *entirely without commitment*. The posts are held as one at the present time but can easily be separated and the Secretary would be happy to shadow and advise for as long as necessary, if desired. No payment is currently made in respect of either post but expenses are of course fully refunded.

Outstanding Restoration Work

Over two years after the Bridge re-opened we continue to be concerned at the lack of progress towards the reinstatement of the ancient track on the Scottish side of the Bridge, which was subsumed in the restoration work. We are looking to Northumberland County Council and the landowner to resolve the reinstatement issues, including restoration of the track, even if the old cobbled surface has gone forever; and to Scottish Borders Council to acknowledge its status as an ancient right of way, possibly even pre-dating the construction of the Bridge.

Salmon Netting at Scotch New Water



From an Aquatint engraving by Robert Scott of Edinburgh from a painting by Thomas Sword Good of Berwick-upon-Tweed 1822, in the collection of Professor Roland Paxton, and reproduced with permission. The postcards illustrating this article are from the Chris Baglee collection now in the Union Chain Bridge archive.

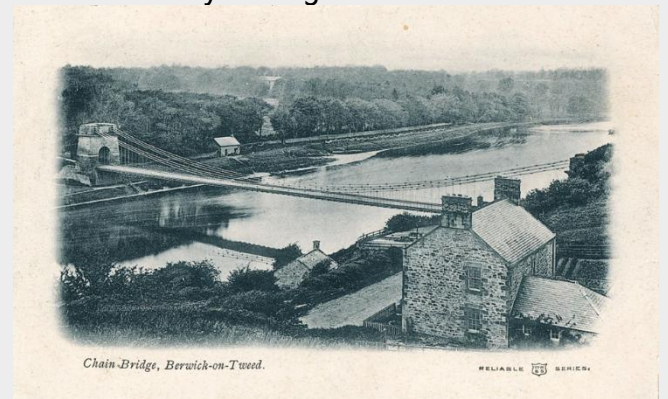
An Ancient and Strategic Place

We have mentioned in previous Newsletters that the River Tweed in the vicinity of the Union Chain Bridge is “an ancient and strategic place” – the encampment of King Charles I just above the present location of the English tower, the strategic crossing point at New Water Ford – the “ford precarious” - and the more recent Blacker Bombard mortar firing point just into Scotland - but the fishing activity at the Bridge can be traced back for almost 1000 years under several names: *Schpwell* - *Scypwell* – *Shipwell* – *Schipswell* – *Scots New Water* – *New Scots Water* – *Water Fords* – and latterly, *Scotch New Water*.

The visitor to Union Chain Bridge cannot fail to notice the distinctive stone and wooden buildings just a few yards downstream from the bridge, on the Scottish side of the river. This is the shiel (shelter or hut) of the Scotch New Water salmon netting fishery, active under a number of names from at least 1230 but very probably centuries before that; and indeed, men will have fished by various means for salmon and other species at this part of the Tweed since time immemorial.

The aquatint at the head of this piece, from 1822, shows the brand new “Union Bridge of Suspension” in the background and the ancient occupation of salmon netting in the foreground. (Imagine the scene, say, four years before, in 1818, without the Bridge; and two years before, in 1819, when the foreground would have been an absolute hive of activity, with blacksmith’s shops, anvils, stonemasons, navvies’ shanty dwellings, lighters and barges off-loading iron components – and, one would imagine, no net fishermen to be seen.

But the shiel shown on the right-hand side, lumb reeking, is Scotch New Water, pre-dating the Bridge construction by centuries and still there today, although now a private residence, since salmon netting throughout the lower reaches of the Tweed finished virtually overnight in 1987.



Postcard from the turn of the 20th century, showing Scotch New Water shiel (note, no wooden shed) and, in the foreground, behind the hedge opposite Chain Bridge House, the Dritness shiel – see below).

Fishwick, that part of the parish of Hutton including the area immediately adjacent to the Scottish side of the Bridge, is mentioned in one of the earliest Scottish records, when, in 1098 King Edgar grants a Charter to Coldingham Priory, which he is building in honour of his patron saint, Cuthbert. He writes “ Know that I give in alms to God and St Cuthbert and to his monks, *Fiscvic*, [now *Fishwick* – literally “the place of the fish or fishings”] both in lands and waters and with all that is adjacent to it, namely that land which lies between *Hornerdene* [now *Horndean*] and *Cnapdene* [now *Knapdean*]”

Two years later, in 1100, Swain, the priest of Fishwick, gives to Coldingham priory his lands at Fishwick amongst other lands.

And in 1230, Clarabald of Esseby (Easby, near Richmond?) a Knight of Huntingdon, gives two fishings to the monks of Coldingham – one below the garden at Fishwick (probably Hornwell or North Ford, further upstream) and the other at **Schipswell [Scotch New Water]**.

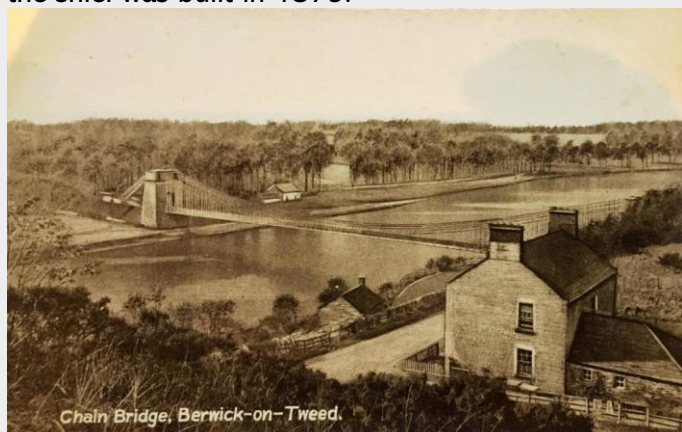
In 1300, the parish of Fishwick includes a mansion house, garden and pigeon house, some 200 acres of arable land and 52 acres of pasture, and the two salmon fishings at North Ford and Schipswell.



Salmon fishermen on the shad at Scotch New Water; early 20C

Almost opposite Scotch New Water, on the English side of the bridge and with its shiel on high ground about 100 yards up the road towards Horncliffe, a few yards down the riverside path to Horncliffe, was **Dritness fishery** [also *Dirkness, Dritt Nest or The Bower*] about which the records are sparse. Dritness is recorded as fishing in 1871, although on the 9th February 1875, the *Berwickshire News* reported that for 11/12 of Dritness Station, there were only two offers of £5 and £6 against a reserve of £50; so the fishery was not let for the 1875 season.

Fishing was, however, recorded again in 1878 and the shiel was built in 1879.



Scotch New Water shiel (far side) and Dritness shiel (beyond the hedge, opposite Chain Bridge House, foreground) Very early 20C
Note the well-maintained riverbank and distinct tracks.

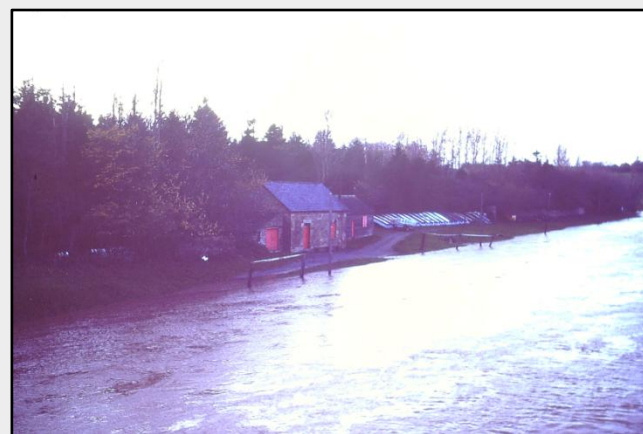
As there was no supply of drinking water to Scotch New Water until early in the 20th century, water for the shiel was obtained from a well just below Dritness and rowed across to the Scottish side.

At some point in the early part of the twentieth century the Dritness fishery was sold to the owners of Scotch New Water and the fishing was combined with that of Scotch New Water. By the middle of the twentieth century the shiel had been abandoned and was a fast-disappearing ruin.

Scotch New Water fishery thrived in the twentieth century and became the workshop for most of the boats of the salmon fisheries on the lower reaches of the river. The photograph below, from 1978, shows the large wooden extension to the original stone shiel built around 1950 and used as a workshop not only for Scotch New Water but also for other fisheries in the lower reaches; the photograph, taken in the close season, shows some 20 cobs laid up against the back wall for storage, repair and painting in their distinctive blue and black in preparation for the next season.



The photograph below, also from 1978, shows the set-up more clearly, but in flood conditions which almost inundated the shiel itself. The same boats are present, escaping the flood, but the posts for drying the nets are well into the flood waters.



At the end of the 1987 season, along with the vast majority of salmon netting interests in the lower reaches of the Tweed, Scotch New Water station closed when the fishing rights were sold to the Atlantic Salmon Conservation Trust and the shiel became a private residence. It remains externally unchanged as a continuing reminder of perhaps the most important and most productive of the lower Tweed salmon fisheries.

On the 18th March 1948 – the year of the great flood – the *Berwick Advertiser* reported that Scotch New Water fishery, under skipper George Purvis, claimed an all-time record of 316 salmon in 22 hours of non-stop fishing with a crew of 5, producing a total of over 700 fish in the week.

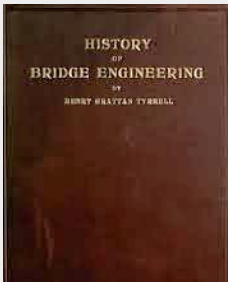
FAKE NEWS!

The strange denials from over the water

Like most brilliant innovators, Captain Sir Samuel Brown had his detractors and critics throughout his career. John Rennie, his collaborator in the design of the pillars of Union Bridge, was critical of the construction and Robert Stevenson pulled no punches in a long and detailed letter to Brown after he had inspected the Bridge a few days after it opened but the criticisms were taken in good part between professional friends.

Brown was the subject of much unfettered criticism by a nom-de-plumed correspondent, 'Inquisitor' in a long-running battle in the letters columns of the *Shields Mercury* after his proposals for a suspension bridge across the mouth of the River Tyne, linking North and South Shields were published.

But the most remarkable calumnies – to use the current term, **FAKE NEWS!**, - emanated from the United States, until really quite recently.



In his definitive work on *A History of Bridge Engineering* published in Chicago in 1911, H G Tyrrell wrote:

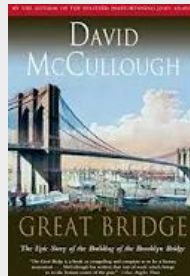
'One of the first engineers in England to develop the suspension bridge was Sir Samuel Brown who, in 1811, proposed the use of flat bars or

links for cables instead of the square and round bars previously used. During the years 1814 to 1830, although several of his structures collapsed, Mr Brown (*sic*) greatly improved designs of suspension bridges but neither he nor Mr Telford used stay cables. It was Brown who, in 1819-20, designed the Union Bridge, over the River Tweed at Berwick. It had (*note the past tense appearing...*) a span of 449 ft and a road 18 ft wide supported by 12 cables, 6 on each side, with versed sine of 30 ft, passing over piers 17½ ft thick at the road level. The cables hung in 3 tiers above each other with 2 chains in each tier and were of round wrought iron, 2in in diameter and 15 ft long, united by coupling links 1⅛ in diameter and 7 in long. The road had wooden floor beams supported by round rods attached alternately to the three cables, loading them equally. **Six months after its completion the bridge was blown down by a violent wind storm.'**

It might have been thought that Tyrrell was simply confusing Union with the fate that befell the pedestrian suspension bridge over the Tweed at Dryburgh, built by John and Thomas Smith of Darnick in 1817, for the Earl of Buchan. That bridge did indeed fall down in a gale five months later (and was replaced).. But Tyrrell is fully aware of that incident and recounts it earlier in his book.

Strangely, the calumny was compounded 60 years later by best-selling author, David McCullough in his "epic story of the building of the Brooklyn Bridge"

The Great Bridge (Simon and Shuster 1972). He appears to have swallowed Tyrrell's account hook, line and sinker. McCulloch doesn't think much of Samuel Brown, damning him in the space of four miserable lines:



"In England in 1831 a suspension bridge had collapsed under the feet of marching troops. (The bridge was the work of Sir Samuel Brown, [not so! Broughton Bridge over the River Irwell (Manchester) collapsed under the strain of 74 troops marching four abreast but is thought to have been constructed by a local blacksmith], whose suspension bridges came down about as fast as he put them up, one after another – at Berwick [!!] Brighton [presumably the Chain Pier, which lasted for over 60 years and about which Roland Paxton wrote in his last article for us in July], Montrose [although it was damaged by a storm in 1839, it was repaired and survived until 1929 when it was replaced by a new structure], and Durham [?? He must have been referring to the Darlington and Stockton Railway suspension bridge which did not fall down but proved unsatisfactory for railway purposes and was demolished; see the next page.]

These two pieces of FAKE NEWS! seem to have had the effect of pushing Union Bridge under the radar, not only in the United States but also in other parts of the world and in this country too, where the success and longevity of the Bridge went largely unnoticed until well into the last century when another of our Patrons, the late P. Gordon Miller began the studies of half a lifetime, painstakingly researching the life and work of Samuel Brown in the most thorough and intricate detail, resulting in the publication, with our Trustee Stephen K Jones, of his *magnum opus*, *Samuel Brown and Union Chain Bridge* in 2017, shortly before his death. When he began his researches in the mid-1970s, even the local press were unaware of the historical importance of the Bridge, hidden in plain sight.

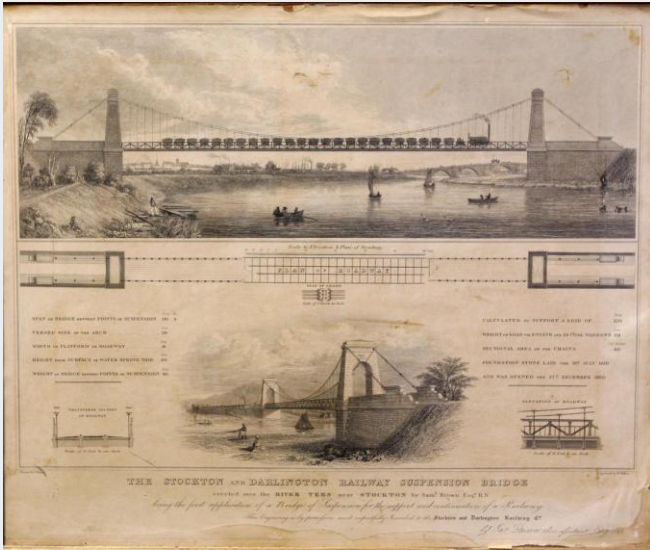
Happily, the work of Gordon Miller and Roland Paxton, and their enthusiastic promotion of the Bridge and the career of its remarkable designer and engineer, has had the effect of rehabilitating the Bridge in the United States and throughout the world, and some of the most enthusiastic supporters of the engineer and his achievements can be found in the American Society of Civic Engineers and the Japanese Society of Civil Engineers where both are now held in high esteem.



Left: Brown's ill-fated suspension bridge on the Darlington and Stockton Railway. See the article on the following page.

“The World’s First, and Worst, Suspension Bridge”

With acknowledgements to the *Northern Echo, Darlington*, and as a reminder of Sam Brown’s involvement (albeit for only a short time) in the world’s first public steam railway, we print this account of one of his less successful ventures.



“MEN sail in little boats on the Tees as seagulls swoop and ducks dabble, and one galloshered man on the bank drifts a net across the surface of the water in hope of catching fish – surely he is in danger of also ensnaring a rowboat or two. Nobody bothers.

In the distance, chimneys smoke proudly and the masts of ocean-going ships stand nobly. And across the middle of it all clatters a steam engine pulling 24 wagons piled high with coal. Again, nobody notices.

The lettering at the foot of this rare print proclaims that this is “the first application of a Bridge of Suspension for the support and continuation of a Railway”. In less flowery language, this was the world’s first railway suspension bridge. But on the day the bridge opened, which the print records as December 27, 1830, the language was probably anything but flowery. It is a fair bet that among the railway pioneers, it was unutterably foul.

Because – and the souvenir print doesn’t say this – the world’s first railway suspension bridge was a disaster.

Work on the bridge commenced in October 1828 when the coal-carrying Stockton and Darlington Railway decided to extend its tracks from Stockton over the Tees to a new port nearer the mouth of the river. That new port was initially called Port Darlington although it grew to become Middlesbrough.

The railwaymen – led by Joseph Pease of Darlington – initially wanted to build a traditional stone arched bridge over the river, but the shipping authorities argued that this would endanger their vessels. Mr Pease called in Captain Samuel Brown of the Royal Navy, an intrepid sailor who had grown tired of his hemp ropes snapping and so had invented the metal chain. With all his ships tied up tightly by chains, the captain turned his attention to dangling bridges from his metalwork. The first of his suspension bridges opened over the Tweed near Berwick in 1820, and his £2,200 Tees bridge was ready for testing on December 10, 1830 – nine months after his suspension bridge in Montrose had collapsed, drowning three people.

The Tees test didn’t go much better. As the first engine, pulling 16 coal trucks, edged onto the bridge, the deck wobbled and shook, and the pillar on the Yorkshire side swayed and cracked. As the train neared the centre, the deck rose up in the middle, creating a mini-mountain, with eight trucks going up the Durham slope while, simultaneously, the other eight rolled down the Yorkshire side.

The coupling in the middle snapped, and while the front eight wagons and the engine proceeded across to Yorkshire, the eight rear wagons ran away, speeding down the hump into Durham.

Hurriedly, the railwaymen propped the bridge up with wooden “starlings”, or piles, and on the opening day, hundreds of people were safely transported across the 281ft deck to Port Darlington.

But, boy, did it sway. It swayed so much that soon orders went out to chain the trucks 27ft apart so that weight was distributed evenly across the bridge.

Not everyone was satisfied with this approach, though. One driver was so worried that as he neared the bridge, he set his locomotive to “crawl” and leapt out of the cab. He dashed across and safely waited on the other side for his train to make its perilous path over the swinging, clanking bridge.

Then he jumped back aboard and, full steam ahead, drove for Port Darlington.

The world’s first railway suspension bridge was such a disaster that in 1842, Robert Stephenson started building a conventional bridge beside it to take the traffic. The suspension bridge was demolished in 1880, although its piles were re-discovered in 2009 near the rail and A66 road crossings of the Tees.

The souvenir print doesn’t portray any of this. Instead it shows the bridge’s masonry piers being true and upright and that the deck is straight and level as the heavy train goes across it with life around it – the sailors, the rowers, the seagulls and the ducks – without batting an eyelid.”