

Glenfinnan Viaduct – Mallaig King Pier (left), Fort William King Pier (right)

© R. Paxton

Confirming a West Highland Railway viaduct legend by Professor Roland Paxton MBE

In 1984, when recording the 21-arch, mass-concrete, Glenfinnan Viaduct for the Institution of Civil Engineers' Panel for Historical Engineering Works, the legend of a Robert McAlpine horse and cart being buried in a pier after an accident during construction in c1898 aroused my curiosity. Only two piers might possibly contain the remains, the so-called 'King' piers (from the west, the 8th or 'Mallaig' and the 13th or 'Fort William'), both about 15ft wide, the other piers being much too narrow (see fig.).

In c1986 British Rail determined the thickness of Glenfinnan Viaduct's King pier construction by means of an inspection hole made near the base of each. The walls were found to be about 4ft thick bounding a tall central cavity about 7ft x 12ft in plan.

In 1987 I pursued my quest by means of these inspection holes through the goodwill of British Rail and the generous sponsorship and contribution, via Michael Jones, of the work of Noslen Access Co. (Geoff Nelson). Equipment involving a fish-eye lens camera mounted on a long pole was specially devised. The camera was then inserted via the inspection hole into each pier cavity and photographs taken at 45° intervals i.e. from 0° (vertical) clockwise to 315°. The results, now published for the first time, (see pages 2 & 3) comprise a central vertical image flanked by images taken at 45°. But, disappointingly, they did not show any evidence of a horse and cart, although it was of interest that some upper timberwork left in place after construction still remained.

This outcome laid the legend for me, until learning from Dr Jim Shipway, great grandson of the viaduct's designer, Alexander Simpson, that Ewen Macmillan of Borrodale remembered from local hearsay in his father's time that the accident had occurred at Loch-nan-Uamh Viaduct!

My attention now turned to Loch-nan-Uamh Viaduct, where the centre pier was the only one large enough to have accommodated the remains of a horse and cart. In 1994, having experienced the value of radar scanning I commissioned from scientist Dr Colin Stove in determining hidden ground conditions at Laigh Milton Viaduct, Ayrshire, it seemed worth trying the technique here. Some preliminary work was done in 1997. But, before embarking on what was a truly difficult and unprecedented operation, an inspection hole was made in the pier wall with a view to possible camera investigation. Unfortunately, the cavity had been infilled with rubble!

Undeterred, on 7th April 2001 a joint state-of-the-art radar scanning exercise was carried out by Radar World (Colin and Gordon Stove and Michael Robinson) and myself, sponsored by Sir Robert McAlpine through the good offices of Sir William McAlpine Bt. It required 11 hours of intensive site work involving the transmission of radio waves through walls up to 9ft thick, and the monitoring and interpretation of their passage.

Amazingly, analysis of the data revealed the remains of the horse, propped vertically against the east wall of the cavity above the wreck of the cart (see fig.). This seems consistent with the horse having been dragged down into the cavity from about track bed level as the viaduct was nearing completion by a loaded stone cart.

The outcome of this fascinating quest has been recorded for posterity on identical plaques at Glenfinnan Station Museum and Loch-nan-Uamh Viaduct unveiled by Sir William McAlpine Bt. on 24th July 2008.

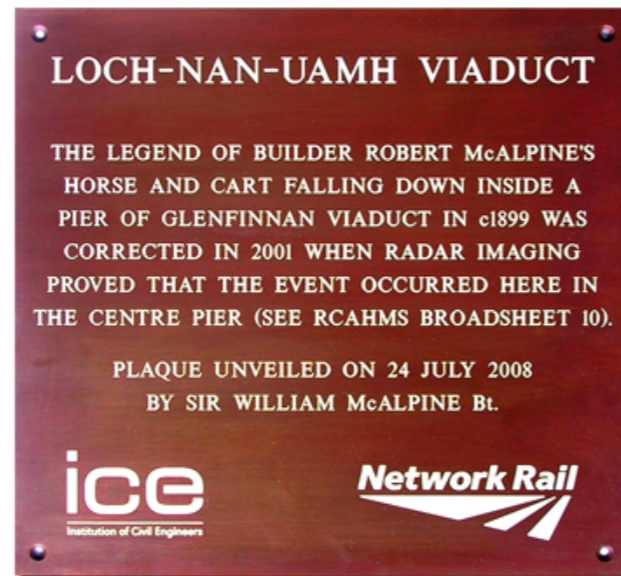
The whole project has been possible only through the generous sponsorship and support of the people and organisations mentioned above and in the plaquing programme, and those present at the unveilings. On behalf of the Institution of Civil Engineers I express my gratitude and thanks to everyone involved.

Further Reading: *RCAHMS Broadsheet 10 The Mallaig Railway*. Edinburgh, 2002.

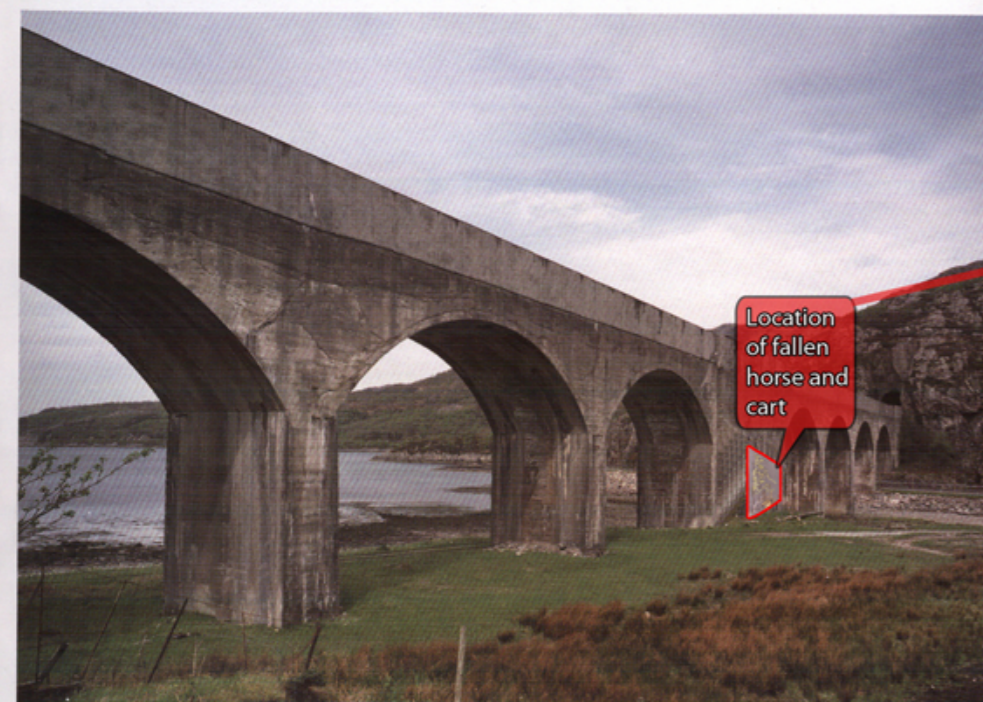
R. Paxton & J. Shipway, *Civil Engineering Heritage Scotland Highlands and Islands*. Thomas Telford Ltd., London, 2007. 184-188.



Loch-nan-Uamh Viaduct – Dr Stove scanning at north face centre pier © R. Paxton



Plaque at viaduct and Glenfinnan Station Museum unveiled on 24 July 2008. © S. Hawkin



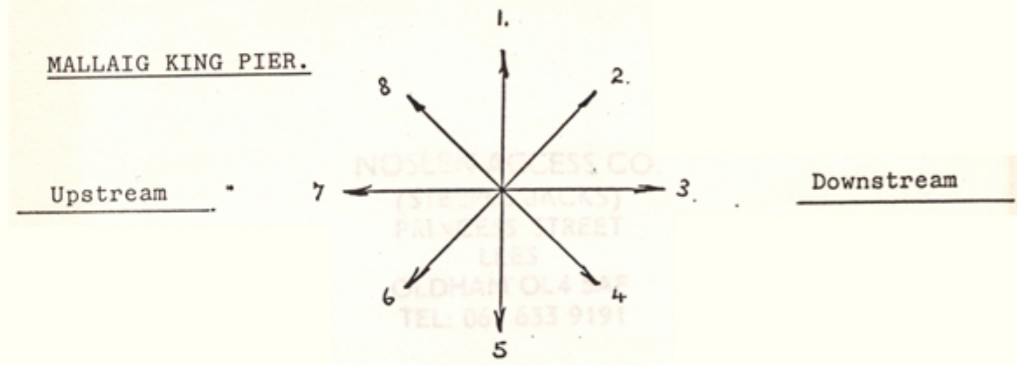
Loch-nan-Uamh Viaduct – Location and remains of horse and cart.



Loch nan Uamh Viaduct; radar scan of remains of horse and cart within central pier. (Courtesy of Radar World)

Crown copyright RCAHMS Broadsheet 10 (excerpt)

Camera Views from inside the Mallaig Pier



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LEWIS & NELSON LTD
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Down View



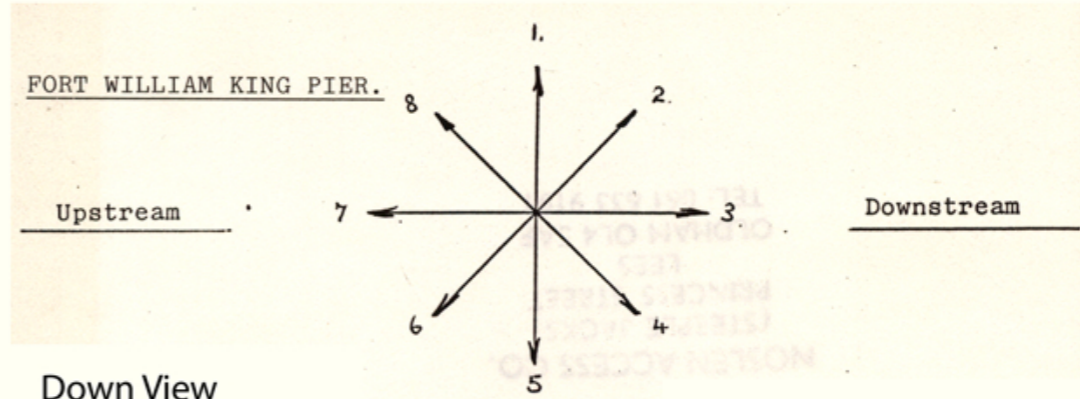
Up View



Glenfinnan Viaduct – Interior of Mallaig King Pier

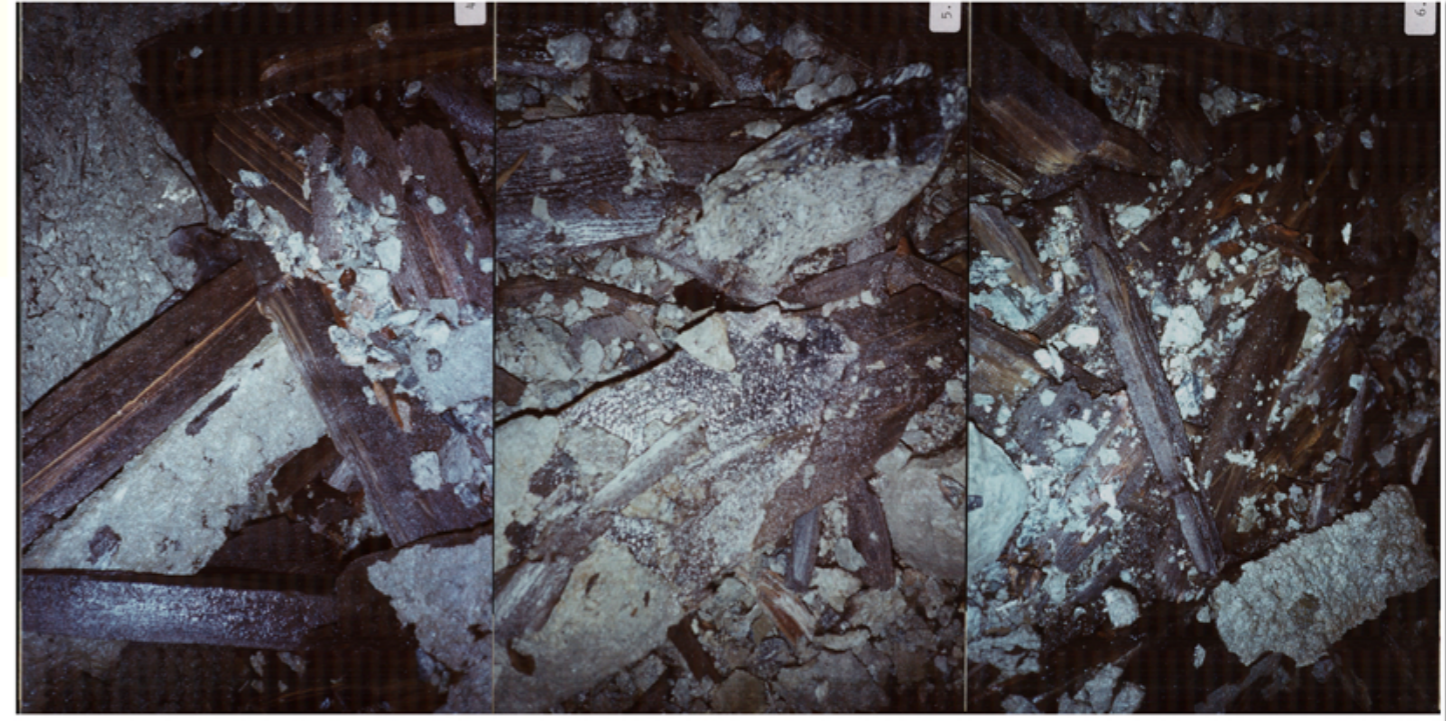
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Camera Views from inside the Fort William Pier

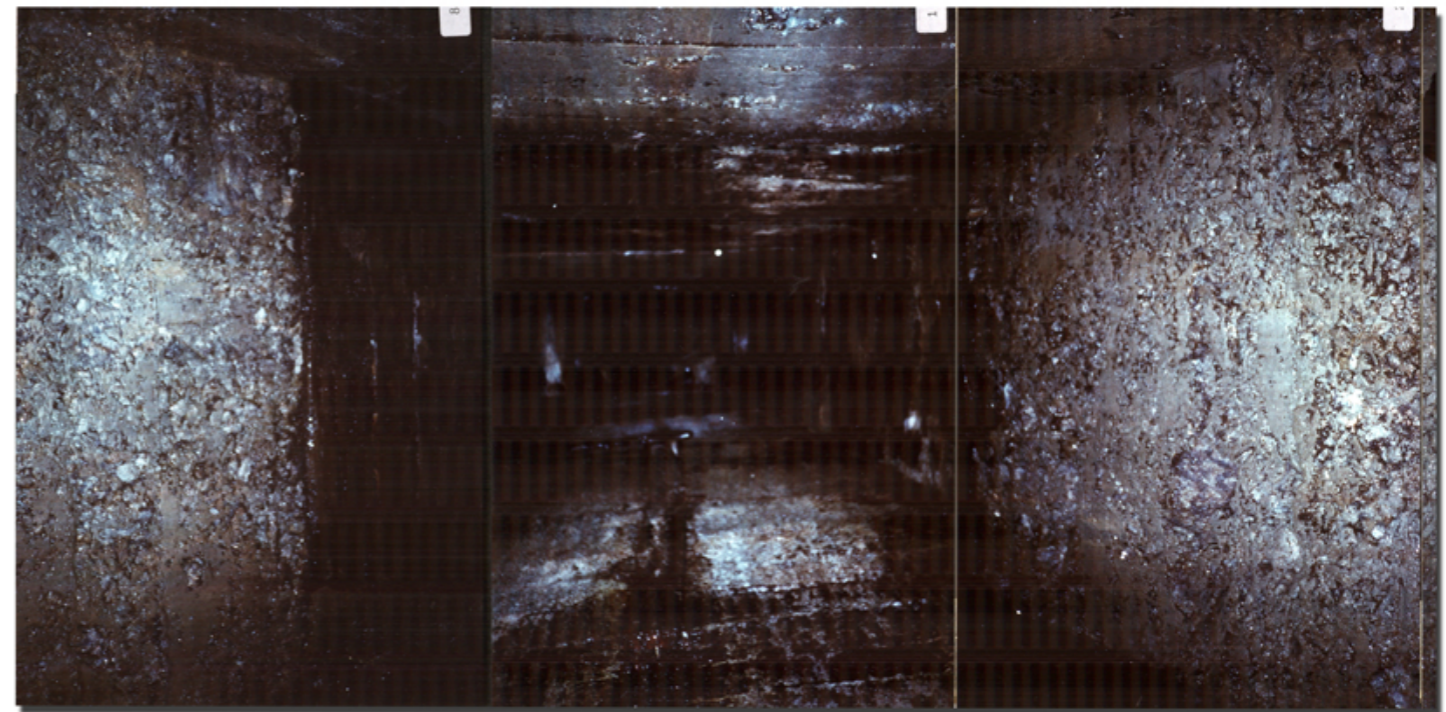


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Glenfinnan Viaduct – Interior of Fort William King Pier

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