

Tordarroch Bridge, Farr, Strath Nairn – its Origin?

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Tordarroch Bridge, 8 miles south of Inverness, is an attractive stone and lime mortar historic Class B listed structure. Currently it is being painstakingly repaired by The Highland Council and Strath Civil Engineering Ltd., after parapet damage and displacement. This project offers a welcome opportunity to investigate why and when the bridge was built?



Fig. 1 Tordarroch Bridge (30ft span) Note 1 in 8 gradient on parapet tops ©Douglas Nelson



Fig. 2 White Bridge (40ft span) on Fort Augustus/Inverness Military Road ©Sandra Purves

Could Tordarroch Bridge be a 'Military Bridge' of the General Wade/Major William Caulfield era [1726-67], perhaps even crossed by Bonnie Prince Charlie? Or maybe, was it one of the 1,075 single-arch bridges erected throughout Scotland under the epoch-making improvements of the Highland Roads and Bridges Act of 1803? Or, was it a local initiative?

I first saw Tordarroch Bridge many years ago when compiling '*Civil Engineering Heritage Scotland Highland and Islands*' [2007] for the Institution of Civil Engineers' Panel for Historical Engineering Works. My impression then was that the bridge was probably late 18th century with earlier 'Military Bridge' design and build characteristics, perhaps partly influenced by White Bridge [1732], about 20 miles south of Tordarroch. [compare Figs 1 & 2].

From a search of old maps, the possibility of Tordarroch Bridge being a 'Military Bridge' can be ruled out, as neither bridge nor road feature on William Roy's definitive military map of Scotland, carefully surveyed from 1747-55. By this time most 'Military Roads' in that part of the Highlands had been built. Also, Tordarroch Bridge and road is not shown on the parliamentary '*Sketch of Military Roads in the Highlands made, and still kept in repair*' by 1814.

The possibility of Tordarroch Bridge being a Highland Roads and Bridges Commission bridge built to its Engineer Thomas Telford's specification was next considered. Perusal of nine published reports of the Commission from 1804-21 relating to its main improvement in Strath Nairn, the 'Inverfarigag Road', did not reveal any mention of the bridge.

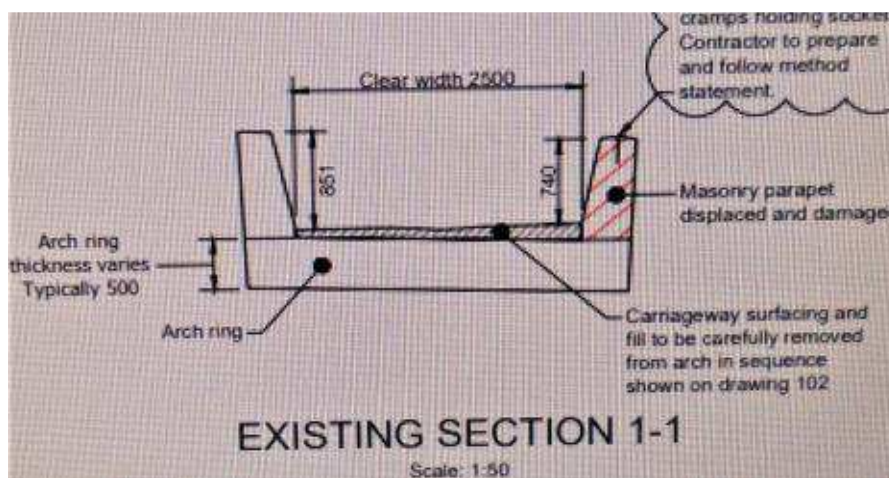


Fig. 3 Tordarroch Bridge 2022 - clear width 2500mm ©The Highland Council [dwg 101]

The ongoing repair work at Tordarroch Bridge has facilitated a comparison of its details with Telford's 1804 specification for Highland Roads and Bridges Commission bridges, a copy of which was forwarded to the project's Highland Council engineers and contractor. Their helpful response included plans, photographs and measurements, a comparison of which with the specification, convinced me that Tordarroch Bridge was not a Telford creation. To mention just two of several significant differences. Telford would have required a minimum road width between parapet faces of 12ft [3660mm], instead of 8¼ft [2500mm – Fig. 3], also, a vertical curved batter of at least 1 in 12 on wing wall/spandrel facings. In elevation, he would probably

have required a bridge top and road surface line in the form of a gentle curve with a minimum gradient of 1 in 12 at the bridge ends, also, tapering pilasters adjoining the arch at each side. An idea of how a Telford designed bridge at Tordarroch might have looked can be seen in [Fig. 4].

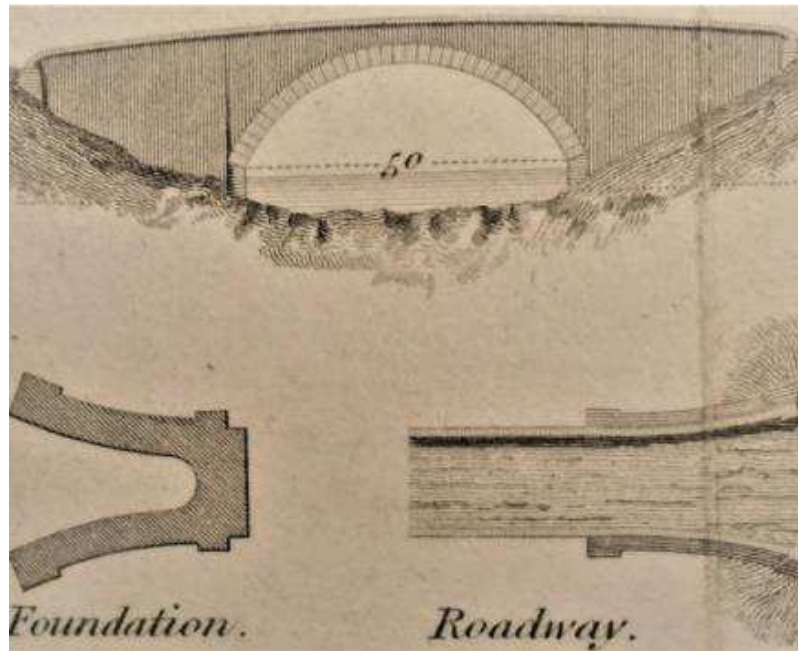


Fig. 4 Loyn Bridge 1814 - 10 miles west of Fort Augustus ©Paxton

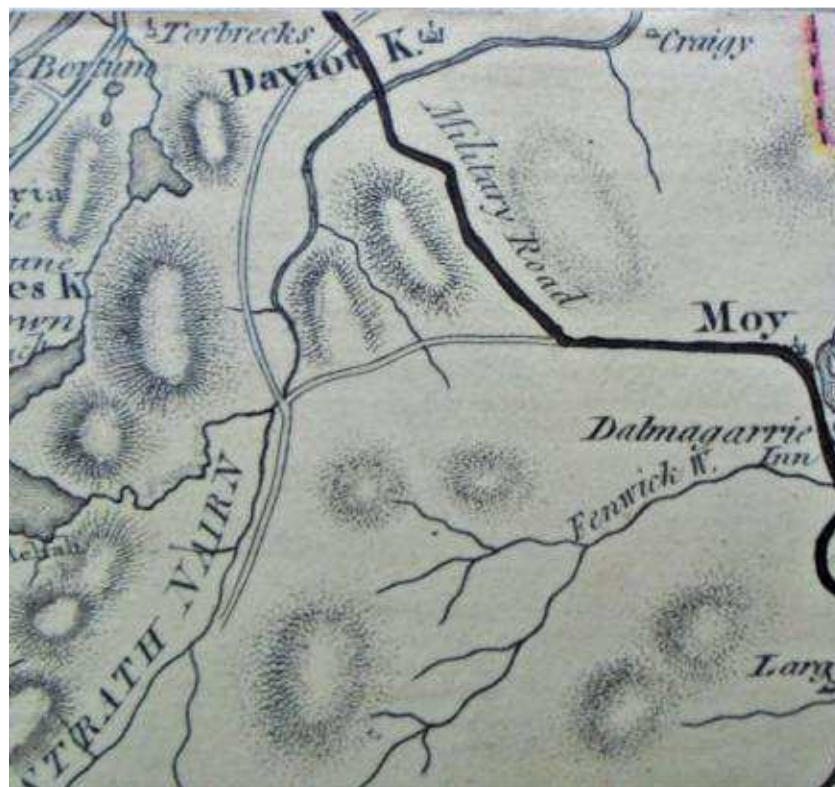


Fig. 5 Ainslie map 1789 - Tordarroch Bridge over R. Nairn [centre-left] ©Paxton

The earliest map I could find showing a bridge and its associated roads at Tordarroch was land surveyor John Ainslie's *'Scotland'* published in 1789 [Fig. 5]. It shows a road starting in Strath Nairn 3 miles south of Tordarroch, bridging the River Nairn at Tordarroch, and continuing north along the west side of the river to join Wade's 'Military Road' from Perth to Inverness near Daviot. As this arrangement still featured on the 11th edition of Ainsley's map in 1840, it can be assumed the route existed. It was more accurately mapped by the Ordnance Survey from 1843.

David Lizars's *'Travelling Map of Scotland from the latest and best surveys'* published in 1808 shows the same road and bridge arrangement at Tordarroch, probably taken from Ainslie's survey. But, by November 1810, narrow Tordarroch Bridge and the road north from it had been bypassed by the Highland Roads Commission's 19½ mile Inverfarigag Road, and Moy Road improvements, made under Telford's direction [Fig. 6]. Tordarroch Bridge, now with only a local function, is not shown on the Commission's map.

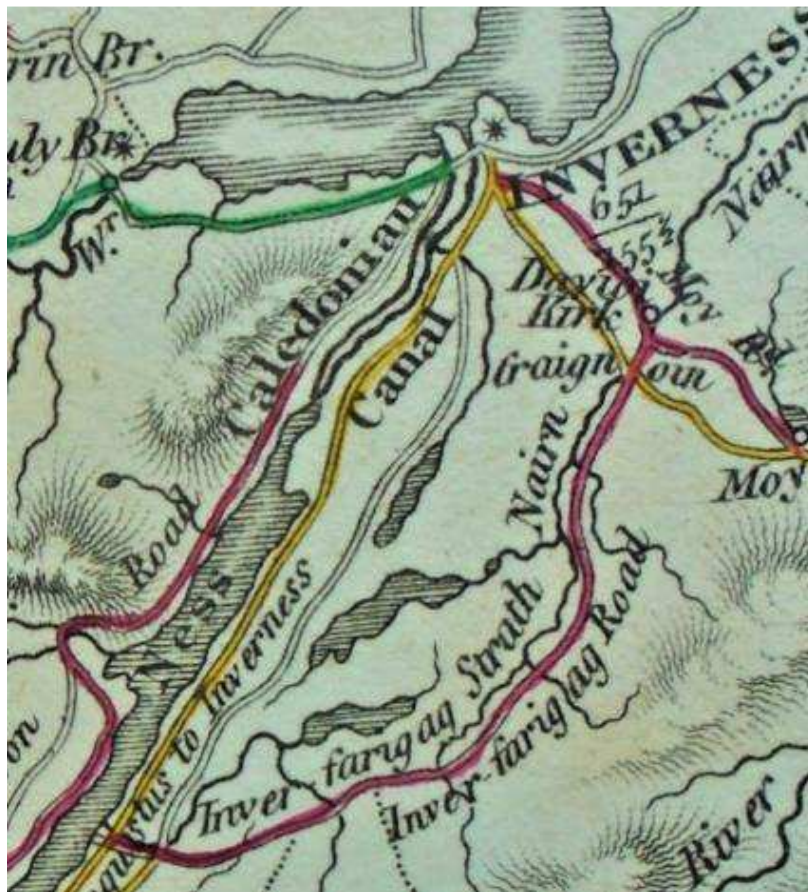


Fig. 6 Highland Roads Commission map showing the **Inverfarigag Road** and **Moy Road** improvements operational from 1810 ©Paxton

The improvements shown on Fig. 6 were incorporated into Aaron Arrowsmith's larger scale improved map of Scotland revised to 1810 [Fig. 7]. Bypassed Tordarroch Bridge and the road north from it are not shown but, interestingly, its continuance from Daviot Kirk to Nairn is, by means of a single line crossing the Moy Road and beyond.

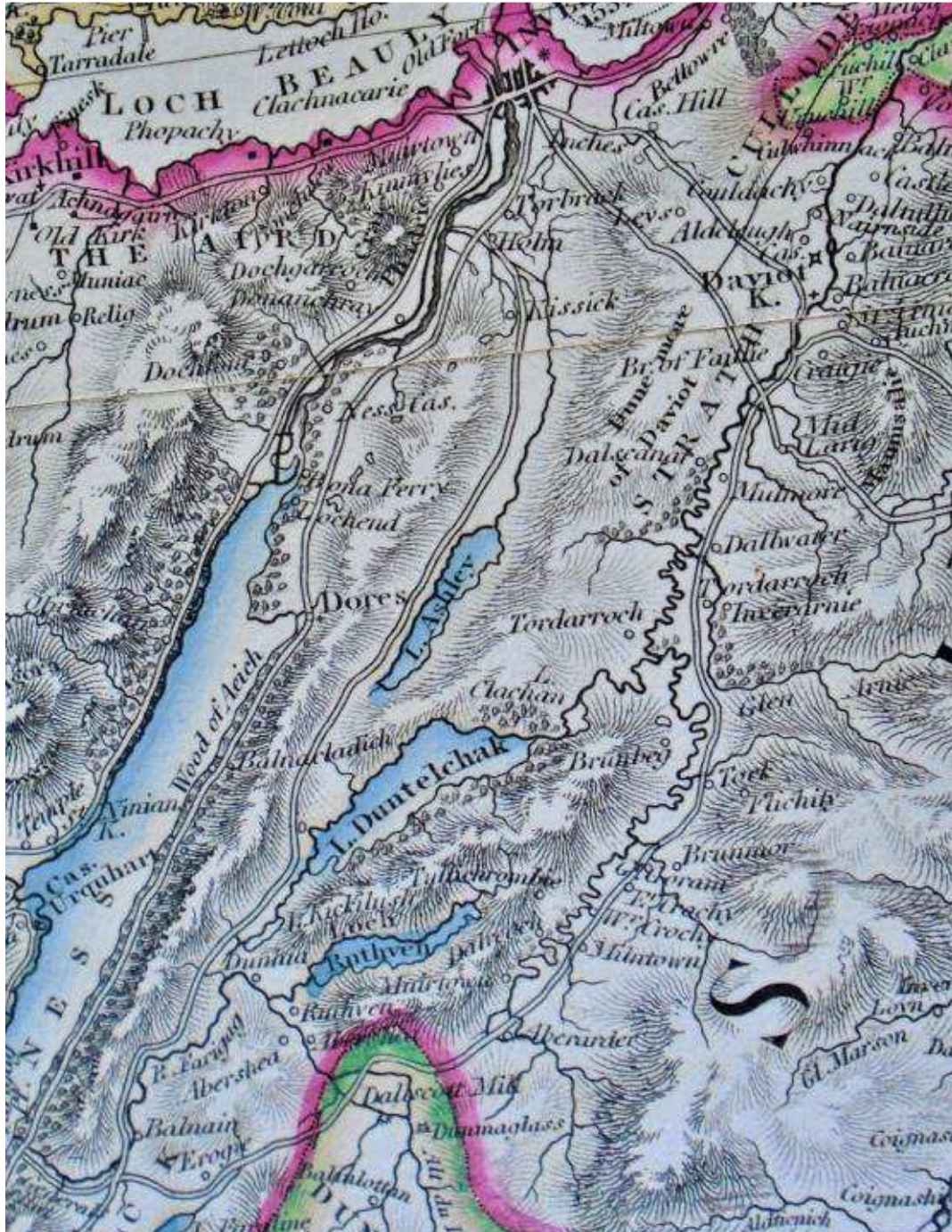


Fig.7 Arrowsmith Map 1810. Note the Inverfarigag Road major improvement from Daviot Bridge via Tordarroch to Loch Ness, but without the bypassed Tordarroch Bridge and road north from it ©Paxton

Confirmation of the down-grading in use of Tordarroch Bridge and the road north from it was found on an Arrowsmith map of 1819. It shows a disconnected stub of road over the bridge serving only the immediate locality west of the river [Fig. 8]. Even so, the road north from the bridge on the west side of the river may have continued to exist as a little-used track and forerunner of the minor road on the west side of the river to Daviot shown on modern maps.

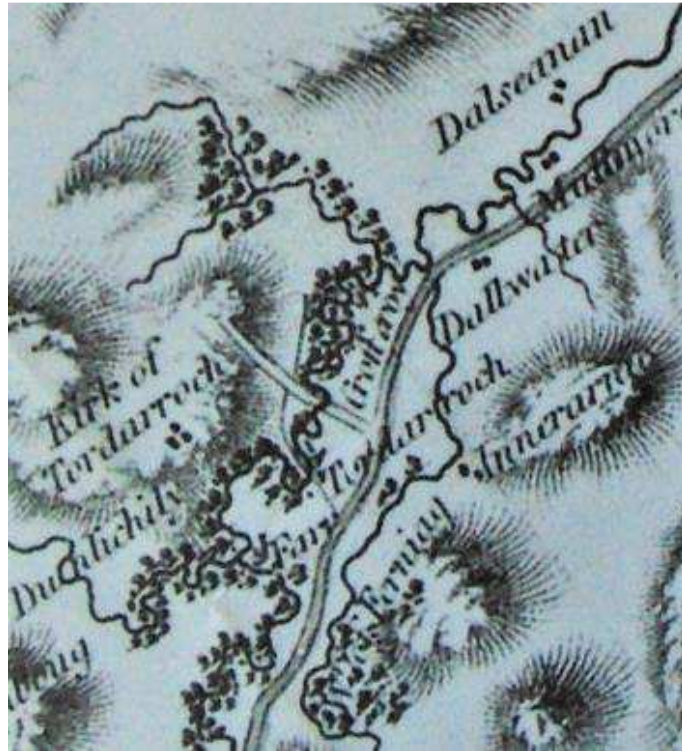


Fig. 8. Arrowsmith 1819 – Tordarroch Bridge & road stub ©Paxton

In the *New Statistical Account of Scotland* [1845] for Daviot and Dunlichity Parishes, the minister, James Macphail, gave a useful overview of communications, but did not mention Tordarroch Bridge. He wrote c. 1835: *'In the east end of the parish of Daviot the Great Highland Road from Perth to Inverness passes through it for nearly 3 miles upon which there is one toll bar in the parish. The Highland coach from Inverness to Perth travels on this road. The Inverfarigag Road under the charge of the Parliamentary Commissioners about 24 years ago, branches off from the Great Highland Road near to the church of Daviot, runs through the parishes to the westwards for nearly 13 miles, and continues to Inverfarigag Pier at Loch Ness.'*

In conclusion, the bridge's origin probably stemmed from a local community initiative in the 1780s. At this time, the spirit of agricultural and public improvement abroad nationally was beginning to gather pace in Strath Nairn. The 1791 *Statistical Account* commented on *'improvements made ... either for ornament or utility'* by four heritors in the parish of Daviot and Dunlichity. To quote one, *'Mr Mackintosh of Farr, by enclosing, draining and planting, has made his paternal estate both valuable and delightful'*. Undoubtedly, he and others would have had an interest in improving road communication with Inverness and Nairn by means of a bridge at Tordarroch and a road northwards on the west side of the river joining the Military Road and beyond. This facility would have enabled the easier conveyance of fuel, manure, materials, goods, produce and people, and provided better access to Tordarroch Kirk.

If any reader knows more about the Bridge's origin, please speak!

Postscript. Tordarroch Bridge is an instructive example of an historic Highland bridge well deserving of its Historic Environment Scotland Class B listing. It was undoubtedly built by a competent stonemason, using such suitable local stone he could procure, to achieve a well-crafted structure [Fig. 9]. In elevation, the arch ring is of circular segmental form, rising about 9ft [2770mm] from each side to its top [Fig. 1]. This form, by then well established in use, is close to what Telford would have required for a bridge of Tordarroch's span in his 1804 Highland bridges specification, that is, a segmental arch with a rise of 10ft [3048mm].



Fig. 9 Tordarroch Bridge repair in 2022 after a parapet collapse – Note the traditional, undressed, arch ring top of tightly packed thin stones under the roadway after c.240 years in service ©The Highland Council

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