

Transatlantic Exchange, Urban Development, and Heterogeneous Engineering in the West of Ireland: Belmullet's Unbuilt Railways, c. 1820–1920

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Abstract

This chapter focuses on technological and geo-spatial dreams of modernity through a study of the unexecuted proposals for developing the town of Belmullet in Co. Mayo as a transatlantic packet station via a railway from Dublin. It adds to the growing literature on north Atlantic exchange and the development of early steamship and railway routes in Ireland. Theoretically, it engages with the concept of Ireland as a functional networked unit within a transnational geo-political infrastructure of certain fixities and flows, and of railways as a core new technology in the development of the nineteenth-century state. The chapter shows how a hypothetical Ireland of the future might leave what was seen as its impoverished past behind and embrace a political and cultural transformation that would reduce its dependence on British exchequer funding. The scheme's proponents believed that Belmullet, in one of the poorest and least developed outer edges of pre-Famine Ireland, could become an infrastructural node of national and international importance. This chapter focuses on the advocacy of landlords, 'boosters', and especially engineers for Belmullet's development. It concludes with some brief comments on a much later scheme from 1915 – also unexecuted – to bring steamships and railways to Belmullet.

Keywords

Urban history, Ireland, railways, technology, North Atlantic

Bio

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In the book *British America*, published in 1832 and widely read in Ireland, the Scottish writer John MacGregor (1797–1857) offered some tantalizing remarks on what he termed ‘intercolonial and transatlantic steam navigation’.¹ Reflecting on his first-hand experience of stormy journeys back-and-forth in ‘abrupt dangerous sea[s]’, he dreamed that a future steam packet route might revolutionize the movement of people and goods across the north Atlantic. Believing that steamships would transform geo-political and socio-cultural relationships across a key maritime axis of the early nineteenth-century British empire, he argued that ‘steam is the mighty giant that Great Britain can send forth to bring her possessions in North America and the West Indies within half the distance, morally speaking, that they now are to Europe.’² MacGregor was unsure what role – if any – Ireland might play in this new infrastructural network: aware of a failed enterprise from 1825 that would have established Valentia Harbour in County Kerry as a transatlantic packet station, he thought that in order to be profitable, future steamships would need to depart from much larger ports such as Liverpool.³ However, MacGregor’s underlying

¹ John MacGregor, *British America* (2 vols, Edinburgh: Blackwood, 1832), 1:423–38, 1:423; *First and Second Reports from the Select Committee appointed to Inquire into the Amount of Advances made by the Commissioners of Public Works in Ireland*, H.C. 1835 (573), xx, p. 175; and J.M. Bumsted, ‘MacGregor, John’, in Frances G. Halpenny, et al. (eds), *Dictionary of Canadian Biography* (15 vols, Toronto: University of Toronto Press, 1985), 8:547–49.

² MacGregor, *British America*, 1:423–25 and 1:431–32.

³ MacGregor, *British America*, 1:426–38; and *Evidence before Commissioners of Revenue Inquiry, referring to Western Harbours of Ireland*, H.C. 1834 (592), li, pp. 24–39.

assumption was of steam at sea but horse on land: *road* networks, not rail. Within a few years of the publication of his treatise, the prospect of steam locomotives moving across a network of railways spanning England, Wales, and Ireland changed fundamentally the potential role for Ireland as a land-bridge that could bind together the British north Atlantic. Cutting substantial time off the journey from London to St. John's or New York via a series of railways and steamship routes across north Wales, Dublin, and a western Irish harbour – and thus avoiding the rough seas and unfavourable winds of the English Channel – the 'Atlantic railway' promised a political and economic transformation for Ireland by granting it a new strategic position within north Atlantic exchange (**Fig. 1**).⁴

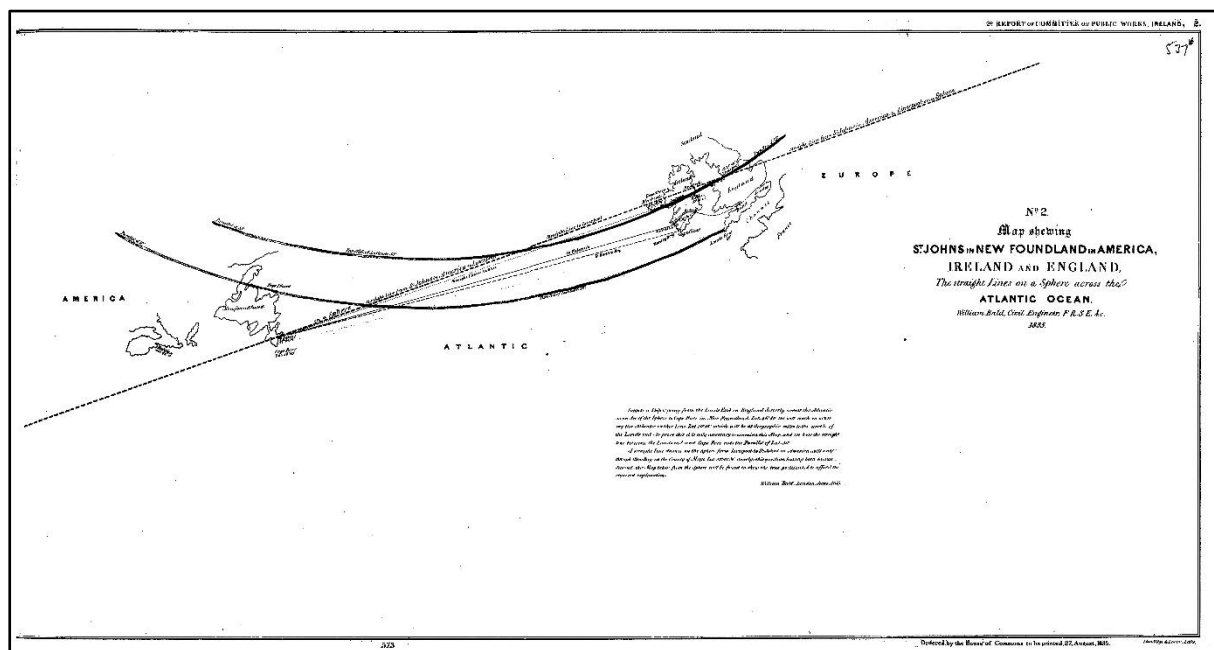


Fig. 1. William Bald's map of the north Atlantic showing latitudes and the shortest distances between England, Ireland, and Newfoundland, 1835. *First and Second Reports from the Select*

⁴ Patrick Knight, *Erris in the Irish Highlands, and the 'Atlantic railway'* (Dublin: Keene, and London: Longman, 1836), p. vii. Though overlooked by Knight and his fellow advocates, sailings west across the Irish Sea also tended to suffer from similarly disadvantageous wind and sea conditions.

Committee appointed to Inquire into the Amount of Advances made by the Commissioners of Public Works in Ireland, H.C. 1835 (573), xx, appendix, map 2.

This chapter focuses on technological and geo-spatial dreams of modernity. It analyses the unexecuted proposals for developing the coastal town of Béal an Mhuirthead (Belmullet) in the west of Ireland as a transatlantic packet station via a railway from Dublin. In the early nineteenth century, many western Irish harbours were considered for such a role, including Castletownbere, Valentia, Tarbert, and Galway. However, Belmullet – and County Mayo more generally – has been overlooked in scholarship to date. This chapter thus adds to the growing literature on north Atlantic exchange and the development of early steamship and railway routes in Ireland.⁵ Theoretically, it engages with the concept of Ireland as a functional networked unit

⁵ John Mannion, ‘The Waterford Merchants and the Irish-Newfoundland Provisions Trade, 1770–1820’, in L.M. Cullen and Paul Butel (eds), *Négoce et industrie en France et en Irlande aux XVIIIe et XIXe siècles* (Bordeaux: C.N.R.S., 1980), pp. 27–43; Kevin H. O’Rourke and Jeffrey G. Williamson, *Globalization and History: the Evolution of a Nineteenth-Century Atlantic Economy* (Cambridge, MA.: M.I.T. Press, 1999); Paul Butel, *The Atlantic* (London: Routledge, 2002); Peter M. Solar, ‘Shipping and Economic Development in Nineteenth-Century Ireland’, *The Economic History Review*, 59:4 (November 2006), pp. 717–42; Douglas Kanter, ‘The Galway Packet-Boat Contract and the Politics of Public Expenditure in mid-Victorian Ireland’, *The Historical Journal*, 59:3 (September 2016), pp. 747–74; Crosbie Smith, *Coal, Steam and Ships: Engineering, Enterprise and Empire on the Nineteenth-Century Seas* (Cambridge: Cambridge University Press, 2018), p. 60; Morgan Kelly and Cormac Ó Gráda, ‘Speed under Sail during the early Industrial Revolution (c. 1750–1830)’, *Economic History Review*, 72:2 (May 2019), pp. 459–80; Richard J. Butler, ‘Charles Blacker Vignoles and the Irish Picturesque’, in Niamh NicGhabhann and Danielle O’Donovan (eds), *Mapping new Territories in Art and Architectural History: Essays in honour of Roger Stalley* (Brepols, forthcoming 2020); Richard J. Butler, ‘“The Whole of the Approaches ... are Full of Difficulties”: Early Proposals for

within a transnational geo-political infrastructure of certain fixities and flows, and of railways as a core new technology in the development of the nineteenth-century state.⁶ The hypothetical Ireland of the future, envisaged as a thoroughfare of transatlantic trade, might leave what was seen as its impoverished past behind and embrace a political and cultural transformation that would reduce its dependence on British exchequer funding. The scheme's proponents believed that Belmullet, in one of the poorest and least developed outer edges of pre-Famine Ireland,

Railways in Cork City, c. 1835–1850', *Irish Architectural and Decorative Studies*, 22 (forthcoming 2020);

Richard J. Butler, 'Transatlantic Visions of a Technological Modernity: Geo-Politics, Engineering, and Dreams of a North American Packet Railway in the West of Ireland, 1825–38', forthcoming; and Peter Hession's chapter in this volume.

⁶ Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley, CA.: University of California Press, 2002), pp. 19–53 and 84–93; Colin Divall and George Revill, 'Cultures of Transport: Representation, Practice and Technology', *Journal of Transport History*, 26:1 (2005), pp. 99–111; Patrick Carroll, *Science, Culture, and Modern State Formation* (Berkeley, CA.: University of California Press, 2006); Greet De Block, 'Designing the Nation: the Belgian Railway Project, 1830–1837', *Technology and Culture*, 52:4 (October 2011), pp. 703–32; Jo Guldi, *Roads to Power: Britain Builds the Infrastructure State* (Cambridge, MA.: Harvard University Press, 2012); and Frank Trentmann and Elizabeth Shove (eds), *Infrastructures in Practice: the Dynamics of Demand in Networked Societies* (London: Routledge, 2018). For railways, see Frank Dobbin, *Forging Industrial Policy: The United States, Britain, and France in the Railway Age* (New York: Cambridge University Press, 1994); Colleen A. Dunlavy, *Politics and Industrialization: Early Railroads in the United States and Prussia* (Princeton, N.J.: Princeton University Press, 1994); Divall and Revill, 'Cultures of Transport'; Mark Casson, *The World's First Railway System: Enterprise, Competition, and Regulation on the Railway Network in Victorian Britain* (Oxford: Oxford University Press, 2009); Chandra Mukerji, *Impossible Engineering: Technology and Territoriality on the Canal du Midi* (Princeton, N.J.: Princeton University Press, 2009), pp. 18–19 and 203–28; and Simon Knowles, 'Railway Visions: William Hyde's Re-Imagining of London as a Networked Space', *London Journal*, 42:3 (2017), pp. 291–310.

could become an infrastructural node of national or even international importance.⁷ In bringing prosperity to Mayo, the new network would simultaneously strengthen and bind the political and economic Union between Great Britain and Ireland. This chapter presents the advocacy of landlords, ‘boosters’, and especially engineers for Belmullet’s development as examples of what John Law and Bruno Latour term ‘heterogeneous engineering’: a discourse that blended social and technological questions.⁸ The building of railways and a steamship harbour was more than an issue of iron and masonry: it was part of a broader political economy of improvement, modernization, and dreams for a better future.⁹ At the centre of all this were engineers, who are considered in this chapter, following Thomas Zeller, as agents of ‘technological utopianism’ who

⁷ W.H. Crawford, ‘Development of the County Mayo Economy, 1700-1850’, in Raymond Gillespie and Gerard Moran (eds), *‘A Various Country’: Essays in Mayo History, 1500–1900* (Westport: Foilseacháin Náisiúnta Teoranta, 1987), pp. 67–90; James Killen and Enda Murphy, ‘Communications’, in F.H.A. Aalen, Kevin Whelan, and Matthew Stout (eds), *Atlas of the Irish Rural Landscape* (2nd edn, Cork: Cork University Press, 2011), pp. 287–301; and Brendán Mac Suibhne and David Dickson (eds), *The Outer Edge of Ulster: a Memoir of Social Life in Nineteenth-Century Donegal* (South Bend, IN.: University of Notre Dame Press, 2000).

⁸ John Law, ‘Technology and Heterogeneous Engineering: the Case of the Portuguese Expansion’, in Wiebe E. Bijker, Thomas P. Hughes, and Trevor Pinch (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge: MA.: M.I.T. Press, 1987), pp. 111–34; Bruno Latour, *Aramis, or the Love of Technology* (Cambridge, MA.: Harvard University Press, 1996), p. 33; De Block, ‘Designing the Nation’, p. 706. Carl Abbott, *Boosters and Businessmen: Popular Economic Thought and Urban Growth in the Antebellum Middle West* (Westport, CT.: Greenwood Press, 1981); Stephen V. Ward, *Selling Places: the Marketing and Promotion of Towns and Cities, 1850–2000* (London: E. and F.N. Spon, 1998), pp. 1–32.

⁹ *First and Second Reports ... into ... Public Works in Ireland*, pp. 131–37.

asserted the empirical ‘truth’ of their technical assertions.¹⁰ ‘Seeing like an engineer’, in Martin Ruess’s words, implied a mastery of new developments in cartography, geology, building materials, structural mechanics, and statistical analysis.¹¹ Many of these traits defined the life and work of the two men at the centre of this chapter – the Scottish engineer William Bald (c. 1789–1857) and his Irish *protégé* Patrick Knight (fl. 1809–1843) – who are both heavily associated with cartography and public works in early nineteenth-century Mayo yet remain relatively understudied in existing histories.¹² The discussion will also briefly comment on a much later scheme from 1915 – also unexecuted – to bring steamships and railways to Belmullet.

¹⁰ Thomas Zeller, *Driving Germany: the Landscape of the German Autobahn, 1930–70* (New York: Berghahn, 2007), p. 53; De Block, ‘Designing the Nation’, p. 707; Erik Swyngedouw, *Liquid Power: Contested Hydro-Modernities in Twentieth-Century Spain* (Cambridge, MA.: M.I.T. Press, 2015); and Massimo Moraglio, *Driving Modernity: Technology, Experts, Politics, and Fascist Motorways, 1922–1943* (New York: Berghahn, 2017).

¹¹ Antoine Picon, *French Architects and Engineers in the Age of Enlightenment* (Cambridge: Cambridge University Press, 1992), pp. 1–15; Robert G. Angevine, ‘Individuals, Organizations, and Engineering: U.S. Army Officers and the American Railroads, 1827–1838’, *Technology and Culture*, 42:2 (April 2001), pp. 292–320; and Martin Ruess, ‘Seeing like an Engineer: Water Projects and the Mediation of the Incommensurable’, *Technology and Culture*, 49:3 (July 2008), pp. 531–46.

¹² For Bald, see Margaret C. Storrie, ‘William Bald, F.R.S.E., c. 1789–1857: Surveyor, Cartographer and Civil Engineer’, *Transactions of the Institute of British Geographers*, 47 (September 1969), pp. 205–31; Richard J. Butler, ‘British Solutions to Irish Problems: Representations of Ireland in the British Architectural Press, 1837–53’, *Victorian Periodicals Review*, 47:4 (Winter 2014), pp. 577–96, pp. 581–82; and Dictionary of Irish Architects (DIA) (www.dia.ie [accessed 11 November 2019]). For Knight, see Knight, *Erris in the Irish Highlands*; Sean Noone, *Where the Sun Sets: Ballycroy, Belmullet, Kilmcommon & Kiltane, Co. Mayo* (Naas: Leinster Leader, 1991), pp. 71–92; Noël P. Wilkins, *Alexander Nimmo, Master Engineer, 1783–1832: Public Works and Civil Surveys* (Dublin and Portland, OR.: Irish Academic Press, 2009), pp. 181, 189–90, 205 and 348; Kathleen Villiers-Tuthill, *Alexander Nimmo & the Western District: Emerging Infrastructure in pre-Famine Ireland*

This chapter employs an urban focus. Alongside Clifden, Co. Galway, Belmullet represents a distinct typology within Irish urban settlement: a planned early nineteenth-century coastal market town, underwritten by new government-funded road schemes (**Fig. 2**).¹³ William Henry Carter (1783–1859), Belmullet’s landlord, laid out a grid of new streets, a square, and a quay from the early 1820s onwards.¹⁴ He believed that his town was ideally suited to become a major settlement, and he located it at the narrowest point of a long isthmus, where it gave easy access to two sheltered bays: Blacksod to the south and Broadhaven to the north.¹⁵ Samuel Lewis, writing in 1837, commented that:

‘It is a rapidly improving town: the surrounding district, about 20 years since, was scarcely accessible; but since that period, by the construction of several lines of road by Messrs. [Alexander] Nimmo, [Patrick] Knight, and [William] Bald, the engineers, ..., the

(Clifden: Connemara Girl Publications, 2006), pp. 122–24; and DIA. Knight’s biographical details are sketchy, but he had died by 1854 – see *Connaught Telegraph*, 20 December 1854; for proof of Knight’s associations with Bald, see Knight, *Erris in the Irish Highlands*, p. 3.

¹³ T.W. Freeman, ‘Irish Towns in the Eighteenth and Nineteenth Centuries’, in R.A. Butlin (ed.), *The Development of the Irish Town* (London: Croom Helm, 1977), pp. 101–38, p. 109. For Clifden, see Samuel Lewis, *A Topographical Dictionary of Ireland* (2 vols, London: S. Lewis, 1837), 2:570; and Henry David Inglis, *Ireland in 1834: A Journey Throughout Ireland, during the Spring, Summer and Autumn of 1834* (2 vols, London: Whittaker, 1834), 2:71–72; Villiers-Tuthill, *Alexander Nimmo*, pp. 124–25.

¹⁴ Noone, *Where the Sun Sets*, pp. 71–73; Theresa Bingham-Daly, *The Mayo Bingham* (Edinburgh: Pentland Press, 1997), pp. 87–88; and Villiers-Tuthill, *Alexander Nimmo*, pp. 122–24.

¹⁵ Carter was also in competition with another local landlord, Major Bingham, who was at the time developing the nearby settlement of Binghamstown – see Knight, *Erris in the Irish Highlands*, pp. 4, 68–71; and Bingham-Daly, *Mayo Bingham*, pp. 87–99.

whole barony has been thrown open, and a great improvement has taken place in the agriculture of the district and the commerce of the port. ... The town owes its origin to the establishment of the head-quarters of the commander of the coast-guard here, in 1822. It is uniformly built, and contains 117 houses; it has a penny post to Ballina'.¹⁶

Belmullet's economic development in the 1820s was inseparable from the new roads that brought it into the national cash economy and gave it a larger market for its produce.¹⁷ For John Bernard Trotter, writing some years before the town was founded, the infrastructural deficit in west Mayo was obvious: 'The great wants of the people of [the barony of] Erris are roads and markets', he thought, adding that 'the nearest market-town is forty miles distant from some parts of it'.¹⁸ To resolve this problem, Knight, Bald, and another Scottish engineer, Alexander Nimmo (1783–1832), worked together in the design and construction of many kilometres of new roads suitable for relatively fast horse-drawn carriages (**Fig. 3**).¹⁹ These roads linked Belmullet (1841

¹⁶ Lewis, *Topographical Dictionary of Ireland*, 1:202.

¹⁷ David Dickson, *Old World Colony: Cork and South Munster, 1630–1830* (Madison, WI.: University of Wisconsin, 2005), pp. 427–36; and Peter Hession "'Wholesome Regulation and Unlimited Freedom": Governing Market Space in Southern Ireland before the Famine', *Urban History*, 46:1 (February 2019), pp. 21–43, pp. 27–31. Knight commented in the 1830s that women's traditional dress in west Mayo had been 'nearly obliterated' in the previous two decades by 'the introduction of cheap English goods into shops' – see Knight, *Erris in the Irish Highlands*, p. 120.

¹⁸ James McParlan, *Statistical Survey of the County of Mayo, drawn up in the year 1801, with Observations on the Means of Improvement* (Dublin: Graisberry and Campbell, 1802), pp. 93–94; John Bernard Trotter, *Walks through Ireland in the years 1812, 1814 and 1817: Described in a series of Letters to an English Gentleman* (London: Phillips, 1819), p. 494; and Knight, *Erris in the Irish Highlands*, pp. 11 and 79.

¹⁹ Knight, *Erris in the Irish Highlands*, pp. 3, 100, 125–27 and map of Erris showing roads in the barony (dated 1832).

population: 637) with the three largest towns in the county: Ballina (pop. 7,012), Castlebar (pop. 5,137), and Westport (pop. 4,365).²⁰ These engineers relied on sophisticated new maps for County Mayo, which had been drawn by Bald following a commission in 1809 from the Mayo Grand Jury (the local government); these were published in 1816.²¹ Belmullet's urban development thus depended on a range of scientific and technological advances – most notably cartography and civil engineering. On the eve of the Great Famine, it boasted a hotel, a dispensary, a Catholic chapel, a Protestant church, a courthouse, and in planning was a short ship canal to link the two bays (**Fig. 4**).²² Caesar Otway, visiting in 1841, considered Belmullet 'the youngest town in Ireland, and like all young things, it is comparatively fresh and fair'.²³ The particular focus of this chapter – debates mostly from the 1830s about potential transatlantic steamship routes and associated railway links with Dublin – must be seen as a continuation of this same discourse of urban improvement, infrastructural development, and (trans)national connectivity. Developing an Atlantic steamship route via Belmullet would have had a profound and obvious impact on the town's development, while also transforming more generally Ireland's

²⁰ Knight, *Erris in the Irish Highlands*, p. 3; and Wilkins, *Alexander Nimmo*, pp. 187–213. For 1841 populations, see *Report of the Commissioners Appointed to Take the Census of Ireland for the Year 1841*, H.C. 1843 (504), xxiv, p. 398; and W.E. Vaughan and A.J. Fitzpatrick (eds), *Irish Historical Statistics: Population, 1821–1971* (Dublin: Royal Irish Academy, 1978), pp. 40–41.

²¹ Villiers-Tuthill, *Alexander Nimmo*, pp. 34–38.

²² Ordnance Survey six-inch map for Belmullet, Co. Mayo, surveyed 1838, published 1839 (Trinity College Dublin, sheet no. MO010); Patrick Knight to Alexander Nimmo, 5 February 1826 (National Archives of Ireland, Dublin, CSORP 1826/1272); Knight, *Erris in the Irish Highlands*, pp. 66 and 144–47; *Fifteenth Report of the Commissioners on Public Works, Ireland ... for the Year 1846*, H.C. 1847 (847), xvii, p. 8; and Noone, *Where the Sun Sets*, pp. 71–76. The canal superseded a much smaller eighteenth-century intervention known as 'Shaen's Cut' to the north of the town.

²³ Caesar Otway, *Sketches in Erris and Tyranny* (London: Longman, Orme, and Co., 1841), p. 48.

place within British and north American exchange. The proposed steamship route thus served local (urban) as well as national and even international economic and geo-political aims and offered a ‘solution’ to what contemporary writers saw as the endemic social and economic ‘problems’ of nineteenth-century Ireland.²⁴ It promised, in the words of a letter-writer to the *New York Courier and Enquirer* in December 1834, a future where Ireland

‘would become, of necessity, the thoroughfare between the two hemispheres: and the occupation of the public mind in such an enterprise, and the constantly increasing fruits of its progress, would do more to pacify the fearful dissensions of the people, and ameliorate their most lamentable condition, than any legislation of even the best disposed Parliament.’²⁵

²⁴ Alexander Somerville, *Letters from Ireland during the Famine of 1847* (ed. K.D.M. Snell, Dublin: Irish Academic Press, 1994); and Niall Ó Ciosáin, *Ireland in Official Print Culture, 1800–1850: a New Reading of the Poor Inquiry* (Oxford: Oxford University Press, 2014), pp. 3–25.

²⁵ *New York Courier and Enquirer*, 24 December 1834.

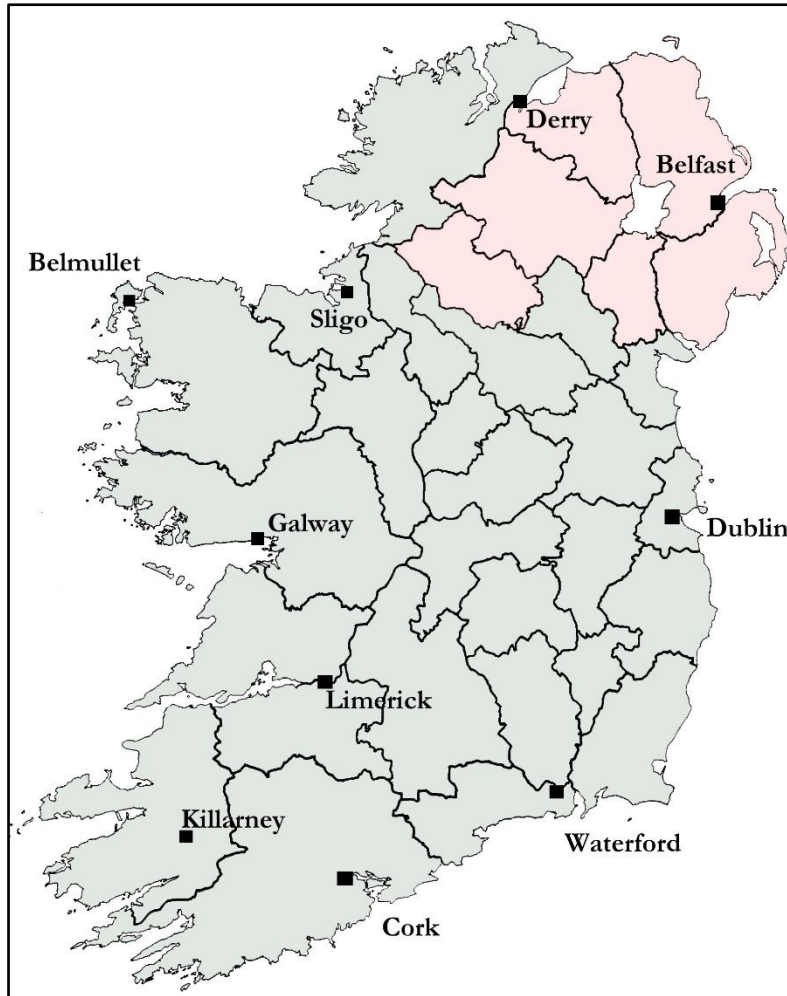


Fig. 2. Ireland, showing the location of Belmullet, Co. Mayo. Map created by the author (based on a template in the public domain).

Fig. 3. County Mayo, the barony of Erris, showing the road network as it existed in 1832, and the town of Belmullet. Patrick Knight, *Erris in the 'Irish Highlands,' and the 'Atlantic railway'* (Dublin: Keene, and London: Longman, 1836).

Fig. 4. Ordnance Survey six-inch map for Belmullet, Co. Mayo, surveyed 1838, published 1839
(Trinity College Dublin, sheet no. MO010).

The background to Belmullet's transatlantic dreams

Belmullet's advocates were not alone in dreaming that their coastal town might become a gateway for transatlantic commerce. The most intense period of competition can be traced to the years between the late 1820s and the late 1830s, and to two governmental enquiries in particular: the *Evidence before the Commissioners of Revenue Inquiry, referring to the Western Harbours of Ireland* (published in 1834, but relating to evidence gathered in 1829–30); and the *First and Second Reports from the Select Committee appointed to Inquire into the amount of Advances made by the Commissioners of Public Works in Ireland* (1835).²⁶ The fast pace of technological development in these years is evident in the shifting focus in these reports from sailing vessels to steamships, locomotives, and railway development. The first enquiry heard from eight witnesses from both sides of the north Atlantic: industrialists in Canada, the governor and postmaster general of New Brunswick, a public servant from Newfoundland, a politician from Halifax, Nova Scotia; as well as a Kerry aristocrat (Maurice Fitzgerald), and a celebrated Irish hydrographer and scientist (Francis Beaufort). Its purpose was to investigate potential 'Packet Harbours' in the west of Ireland for Post Office communications between Great Britain and 'the British North American

²⁶ *Evidence ... referring to [the] Western Harbours of Ireland; and First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland.*

Possessions'.²⁷ Its focus on statecraft – intra-imperial postal communications – rather than the development of a new private commercial network reflected its pre-railway assumptions of land travel and the limitations, for example, of moving bulk goods across Ireland by canal or by horse. Similarly, there was Beaufort's detailed analysis of prevailing winds, which assumed passages by sail rather than steam (or at least vessels that relied on some combination of the two).²⁸ At this early stage, all of the witnesses – including of course the hardly impartial Fitzgerald – assumed that Valentia Harbour could serve as a future packet station. Belmullet and other potential ports were not discussed. Howard Douglas, governor of New Brunswick, thought that Valentia 'would be an important point for departure and arrival'. Beaufort, using his longitudinal calculations showing the shortest distances across the Atlantic, his study of prevailing winds, and his preference for a harbour with two separate entrances (to suit different wind conditions), also settled on Valentia.²⁹ 'It is the most western port of Europe', his calculations showed, adding that he had 'no hesitation' in saying that steamships would be 'generally introduced some day or another' between the west of Ireland and north America.³⁰

Valentia maintained its preeminent position in transatlantic proposals until around 1835. This reflected Fitzgerald's early advocacy for his home county and his unsuccessful business ventures for transatlantic sailings from the harbour in the mid-1820s.³¹ The coming of railways – with Ireland's first line, the Dublin & Kingstown (Dún Laoghaire) opening in 1834 – only

²⁷ *Evidence ... referring to [the] Western Harbours of Ireland*, p. 1.

²⁸ *Evidence ... referring to [the] Western Harbours of Ireland*, pp. 40–43; and Carroll, *Science, Culture, and Modern State Formation*, pp. 143–63.

²⁹ *Evidence ... referring to [the] Western Harbours of Ireland*, pp. 4–5 and 42–43.

³⁰ *Evidence ... referring to [the] Western Harbours of Ireland*, p. 43.

³¹ *Evidence ... referring to [the] Western Harbours of Ireland*, pp. 24–39.

strengthened Fitzgerald's case, and he simply included in his revised plans a network of railways across Wales and from Dublin to Valentia, and onwards by steamship across the Atlantic.³² However, by this time, landlords, boosters, and engineers began to promote other coastal towns, keenly aware of the considerable economic potential. The report of a government-appointed committee to investigate the finances of the Irish Board of Public Works provided an unexpected opportunity – in its questioning of more than 20 witnesses – to hear these competing proposals for transatlantic exchange by railway and steamship.³³ Straying beyond its narrow remit, the committee concerned itself with 'remedial measures proposed for the improvement of Ireland', believing that what they saw as the country's deep social problems demanded creative solutions beyond the usual demarcations of the liberal state. This, they considered, did 'not admit of comparison with other parts of the United Kingdom.'³⁴ The engineers who gave evidence stressed their role as scientific experts with deep technical knowledge, which would be required to 'solve' these broader socio-economic problems.³⁵ Landowners and capitalists, such as Fitzgerald and others discussed below, also relied upon these engineers – using them to their

³² *Dublin Penny Journal*, 2:103 (21 June 1834), pp. 404–05; Kevin Murray, 'Dublin's First Railway, Part I', *Dublin Historical Record*, 1 (1938), pp. 19–26; and Kevin Murray, 'Dublin's First Railway, Part II', *Dublin Historical Record*, 1 (1938), pp. 33–40. For Fitzgerald's plans, see *Kerry Evening Post*, 15 and 18 April 1835 and 16 May 1835; and John Armstrong and David M. Williams, 'The Perception and Understanding of New Technology: a Failed Attempt to Establish Transatlantic Steamship Liner Services, 1824–1828', *The Northern Mariner/ le marin du Nord*, 17:4 (October 2007), pp. 41–56.

³³ The Irish Board of Public Works had been reconstituted under the Public Works (Ireland) Act, 1831 (1 & 2 Will. IV, c. 33).

³⁴ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 7. See also Ó Ciosáin, *Ireland in Official Print Culture*; and Hession's chapter in this volume.

³⁵ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 11, 13–15 and 25–26.

advantage – to make purportedly disinterested technical cases for the development of their preferred coastal towns. The witnesses focused largely on the question of which of two towns would make a better transatlantic packet station: Valentia or Belmullet.

Valentia, Belmullet, and the engineer William Bald

The 1835 select committee report left little doubt that the preferred transatlantic packet station remained Valentia. Its backers provided a multitude of reasons why it was ideally suited for this purpose, and these were reinforced in the evidence given by all the engineers except Bald, who alone advocated for Belmullet. One Valentia supporter was the solicitor and Kerry landowner Pierce Mahony (1792–1853), who had interests in the Dublin & Kingstown Railway.³⁶ He began by making the case for a ‘safety harbour’ for British vessels plying the north Atlantic. Each year, he argued, hundreds of thousands of pounds of goods were lost when ships were caught in storms and this was ‘paid for in England by the insurers at Lloyd’s and elsewhere.’ ‘A large proportion of their losses’, he added, ‘arose from wrecks on the Irish coast’. A state-funded refuge harbour for ships, suitable for all wind conditions, would alleviate the problem, and Mahony was clear that this would be best placed somewhere on the ‘south-western shore’ – though only later in his testimony did he state that he had a clear financial interest in developing a new railway-steamship route linking Dublin, Valentia and America.³⁷ The stockbroker James

³⁶ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 71–75, 173.

³⁷ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 86, 173–75. Debates on the need for safety harbours in British waters continued well into the 1840s and 1850s – see for example *West India Mails: Copy of the Third Report of the Commissioners appointed to inquire*

Pim (1796–1856), who served as the treasurer for the Dublin & Kingstown Railway, was similarly interested in extending his company's network to Valentia.³⁸ He quoted from a resolution adopted at a meeting of the directors of the company on 15 May 1835, which stated that a direct link from Kingstown to Valentia

‘claims the serious consideration of all who are interested in the welfare of Ireland and are sensible how deeply her condition must ever affect the general prosperity of the British Empire. ... Valentia Harbour, which is the most westerly and considered by some of the first nautical authorities one of the safest and most accessible ports in Europe, is capable of being rendered the great packet station of the United Kingdom, through which the intercourse between the British Islands and the New World, ..., might be carried on, exempt from the delays and dangers’.³⁹

The resolution added that the journey time from London to New York would be cut from a month to under a fortnight. Furthermore, the new railway would bring into the Dublin market ‘the principal towns of the South and West of Ireland’. Hoping for government assistance of some kind, the directors referred to the proposal as ‘this great national project’.⁴⁰

respecting the Port to be selected for the Arrival and Departure of West India Mails, H.C. 1841 (67), xxvi. I am grateful to Dr. Peter Hession for this reference.

³⁸ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 112.

³⁹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 125.

⁴⁰ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 125.

For expert opinion on the technical aspects of the proposal, Mahony and Pim relied on the engineers William Cubitt (1785–1861) and Charles Vignoles (1793–1875).⁴¹ Neither were, of course, in any way impartial witnesses: Cubitt was in the employment of Valentia’s backers, tasked with surveying potential routes across Ireland, and Vignoles had been the engineer for the Dublin & Kingstown Railway.⁴² Cubitt confidently asserted that the route would ‘connect London with Valentia via Dublin’, allow for easy troop movements, and link up southern Irish market towns. He was sure, without offering any evidence, that Valentia was ‘the most western point in Ireland’, thus affording what he thought would be the shortest Atlantic crossing, and furthermore that from studying ‘the charts’ (though not from first-hand experience), Valentia was a harbour with ‘great capabilities’.⁴³ Keen to emphasize the potential for political and economic transformation, he referred to the proposal, tellingly, as a ‘plan for the amelioration of the South and South-west of Ireland’.⁴⁴ Vignoles was even more enthusiastic, praising Cubitt’s proposed Dublin-Valentia route as a ‘perfectly practicable line, much less difficult than that between London and Liverpool’.⁴⁵ He saw the building of an Irish transatlantic trade route via Holyhead (then also being developed at this time), Dublin and Valentia as offering the same potential for geo-political advancement as the new railways in Belgium that linked the port of Antwerp with the Rhine, and the ‘great impulse’ of railway building in France and the United States, serving in both countries a broader purpose of binding together relatively young nation

⁴¹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 153, 158. For Vignoles, see Butler, ‘Charles Blacker Vignoles’; Butler, ‘Transatlantic Visions’; and DIA.

⁴² *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 131 and 173.

⁴³ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 129. The end of the nearby Dingle Peninsula is very marginally further west than Valentia Harbour/Island.

⁴⁴ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 173.

⁴⁵ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 131.

states. Valentia Harbour, he stated, was recommended by ‘nautical men’ (such as Beaufort) and ‘statesmen’ as a ‘most eligible’ port.⁴⁶ ‘In short’, he concluded, ‘Ireland would become the great highway ... from the Old to the New World, – the thoroughfare between the two hemispheres’.⁴⁷

Bald had the unenviable role of challenging this consensus by advocating for a Dublin-Belmullet railway line, and the development of that town as a transatlantic packet station. He came with impressive credentials: as well as his cartographic and road-building work in Mayo and elsewhere, he had extensive experience in draining Irish bogs, surveying railway lines, and in building harbours and bridges.⁴⁸ Faced with relentless hostile questioning from Andrew Lynch, the MP for the borough of Galway, Bald put forward three reasons why Belmullet would make a better gateway for north Atlantic traffic.⁴⁹ The first concerned the shortest distance between Liverpool and St. John’s, Newfoundland. Rather than simply a longitudinal question of the most

⁴⁶ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 131–34. Vignoles, like Cubitt, admitted to having no first-hand knowledge of Valentia Harbour – see *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 136.

⁴⁷ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 134; and Butler, ‘Transatlantic Visions’.

⁴⁸ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 212–18; Storrie, ‘William Bald’; and Butler, ‘British Solutions to Irish Problems’, pp. 581–82.

⁴⁹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 210.

Lynch (elected 1832) was a Repealer MP and thus naturally sympathetic to Daniel O’Connell’s native west Kerry; O’Connell also called publicly for the building of a Dublin-Valentia railway – see *Hansard*, 3 ser., vol. xxx, col. 1 (3 August 1835); and Stephen Farrell, ‘Galway’, in D.R. Fisher (ed.), *The History of Parliament: the House of Commons, 1820–1832* (7 vols, Cambridge: Cambridge University Press, 2009), 3:772–79, 3:778.

westerly port, Bald calculated the shortest ‘arc of the sphere’ distance between the two cities and found that this line crossed through County Mayo. This approach continues to shape our travel today, as when calculating the shortest routes for transatlantic flights, and it gives the appearance of a curved line on a traditional Mercator cylindrical projection of the Earth’s surface.⁵⁰ Journeys today from Europe to the west coast of America, for example, bring passengers close to the Arctic Circle. Though the differences between Belmullet and Valentia are in fact almost negligible, Bald used the latest scientific and mathematical advances to argue that Belmullet had a small but significant advantage.⁵¹ Furthermore, the cliffs of nearby Achill Island – ‘the most remarkable headland on the west coast of Ireland’ – would serve as ‘one of the most unerring guides to the mariner’, and a lighthouse on nearby Black Rock island, at the entrance to Blacksod bay, would guide steamships to safety.⁵² Bald’s second argument was that it would be substantially less costly to build a railway from Dublin to west Mayo than to Valentia. Using his first-hand knowledge of bogs in the north midlands, he argued that ‘no part of Ireland’ offered ‘greater facilities to the making of a rail-road’. The country was mostly level, unlike the mountainous south-west, and there was ‘an abundance’ of good limestone for building. The straight-line distance from Dublin to Belmullet, he added, was more than 20 nautical miles shorter than to Valentia, even before taking account of the circuitous route that would be required to avoid upland areas.⁵³ His third reason centred on what he saw as the excellent natural

⁵⁰ Mark S. Monmonier, *Rhumb Lines and Map Wars: a Social History of the Mercator Projection* (Chicago, IL.: University of Chicago Press, 2004).

⁵¹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 126, 218–20, 269–70.

⁵² *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 220.

⁵³ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 218–19.

features of the harbours of Blacksod and Broadhaven. Overlooking the fact that both essentially dry out near Belmullet at low tide, he described them as ‘large and roomy’ and ‘excellent’.⁵⁴ The building of a canal across the narrow isthmus at Belmullet, and the creation of two ‘magnificent floating basins’, would only add further to the town’s facilities.⁵⁵

Upon a request to give further testimony to the committee a week later, Bald returned with maps showing the ‘arc of the sphere’ lines from Dublin, Liverpool, Valentia and Bantry Bay, to St. John’s, Halifax, and New York.⁵⁶ Another map (**Fig. 5**) showed various proposed Irish railways, including Bald’s routes linking Dublin with Galway, Roundstone and Belmullet. Comparisons with modern maps today show that while Bald’s shortest routes across the north Atlantic were remarkably accurate for their time, his sketch outline of the western Irish coastline was very hastily drawn – giving a particularly inaccurate representation of west Connacht and omitting an entire peninsula in the south-west. Nevertheless, these maps, and the various statistical tables and mathematical calculations that accompanied them, were deployed by Bald in a second attempt to convince the committee of the merits of the Belmullet route. Linking Blacksod and Broadhaven bays with a canal, he stressed, would allow for ‘perfect and full security’ for vessels in all wind conditions. He confidently argued that the town’s advantages would be ‘clearly understood’ by a reference to ‘any good map of Ireland’ (not his, then), adding

⁵⁴ Norman Kean (ed.), *Sailing Directions for the South and West Coasts of Ireland* (14th edn, Kilbrittain, Co. Cork: Irish Cruising Club, 2016), pp. 290–301.

⁵⁵ Kean, *Sailing Directions*, pp. 290–301.

⁵⁶ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 256–71 and appendix, two maps by Bald showing the Ireland Britain, and the north Atlantic (both dated 1835).

that its superiority could ‘only be fully appreciated by those versed in nautical affairs’.⁵⁷ To further his point, he quoted from the descriptions of the Scottish cartographer Murdoch Mackenzie (1712–1797) of various western Irish harbours.⁵⁸ Mackenzie, who Bald referred to as ‘a man of science’, thought that both bays were ‘well sheltered’ but cautioned – awkwardly for Bald – that the winter gales ‘set in a great swell’ in Blacksod.⁵⁹ To counter this, Bald took the liberty of including Mackenzie’s lengthy assessment of Valentia, replete with worrisome comments about submerged rocks and shoals, and a warning that the western approach to the harbour requires ‘high water and a skilful pilot’ as there are ‘shoals on each side, and the channels between them narrow and irregular.’⁶⁰ This served, of course, to demonstrate Belmullet’s advantages over Valentia.

⁵⁷ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 267–68.

⁵⁸ Murdoch Mackenzie, ‘The West Coast of Ireland, from Achill I. to the Staggs of Broad Haven’, chart 15 (surveyed 1775), in Murdoch Mackenzie, *A Maritim [sic] Survey of Ireland and the West Coast of Great-Britain, taken by order of the Right Honourable the Lords Commissioners of Admiralty, accompanied with a Book of Nautical Descriptions and Directions to each Volume* (4 vols, London: the author, 1776), 1:42; Daniel R. Headrick, *When Information Came of Age: Technologies of Knowledge in the Age of Reason and Revolution, 1700–1850* (Oxford: Oxford University Press, 2000), pp. 108–15; and Diana C.F. Webster, ‘Mackenzie, Murdoch, the elder’, in H.C.G. Matthew and Brian Harrison (eds), *Oxford Dictionary of National Biography* (60 vols, Oxford: Oxford University Press, 2004), 35:613–14.

⁵⁹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 268.

Bald also here added a footnote dismissing concerns about Blacksod Bay: ‘I have not heard of ships not being able to ride out safely the heaviest gales in that harbour’.

⁶⁰ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 268–69; and Mackenzie, *A Maritim Survey of Ireland*, chart 8 and 1:81.

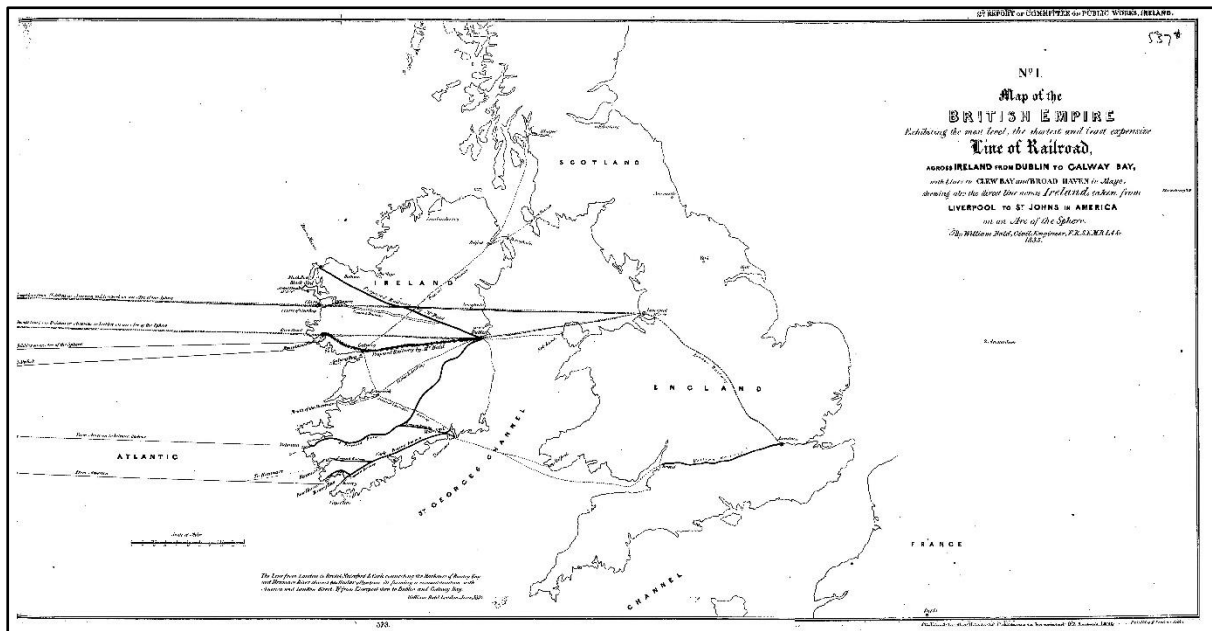


Fig. 5. William Bald’s map of Ireland and Britain showing railway and transatlantic packet routes, 1835. *First and Second Reports from the Select Committee appointed to Inquire into the Amount of Advances made by the Commissioners of Public Works in Ireland*, H.C. 1835 (573), xx, appendix, map 1.

One of the intractable problems facing Bald was that a railway from Dublin to Belmullet would have passed through relatively few market towns in the north midlands, unlike the proposed line to Valentia. These towns were also, in general, smaller and poorer than in the agricultural heartlands of the south midlands and south-west. Richard Griffith (1784–1878), an engineer with extensive experience building roads in Cork and Kerry, was quick to dismiss Belmullet’s dreams of becoming a transatlantic packet station.⁶¹ Giving evidence to the same committee immediately after Bald, he was asked to express a preference for developing either

⁶¹ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, pp. 220–21; Butler, ‘Transatlantic Visions’; and DIA. Griffith had extensive knowledge of Mayo and had surveyed bogs there around 1812 – see Knight, *Erris in the Irish Highlands*, p. 2.

town; his reply was unequivocal: 'I have no hesitation in preferring the south-western one, that to Valentia'. Its two entrances – however narrow one of them was in practice – gave it a 'great advantage' over ports such as Galway, and Belmullet would need a ship canal to make full use of both bays.⁶² While admitting that 'near to Valentia, considerable difficulty would arise' in building a railway through mountainous districts, he still thought it preferable to a Galway or a Mayo route, and its branches could link up major cities and towns such as Kilkenny, Cork, and Limerick. Connacht, he thought, would be better served by extending the Grand Canal from Ballinasloe to Galway.⁶³ Another critic at this time was the English travel writer John Barrow, who, with a keen interest in nautical affairs, read the select committee's report and visited the west of Ireland in late 1835. 'The mania for rail-roads has seized upon Ireland', he remarked, adding that he assumed the various transatlantic proposals all depended upon substantial government assistance. 'In this', he cautioned, 'I suspect they will fail'. He was especially downbeat about Belmullet:

'The distance from Dublin to Black Sod Bay, the latter part through a mass of mountains, is one hundred and fifty-two miles, which, ..., will amount to [£] 3,040,000. ... Black Sod Bay has good and well-sheltered anchorage, but difficult for ships to get out in westerly and northerly winds; the projectors however talk of making a cut from it into Broadhaven, which would remedy the inconvenience. ... Black Sod appears to me to have the least claim for assistance from Government'⁶⁴

⁶² *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 224.

⁶³ *First and Second Reports from the Select Committee appointed to inquire into ... Public Works in Ireland*, p. 239.

⁶⁴ John Barrow, *A Tour round Ireland, through the Sea-Coast Counties, in the Autumn of 1835* (London: Murray, 1836), pp. 271–75.

Patrick Knight's *Erris in the "Irish Highlands," and the "Atlantic Railway"* (1836)

Belmullet's advocates, undeterred by their many critics, formed a company to advance their ambitious plans with the backing of influential Connacht aristocrats such as the marquess of Clanricarde. The 'Grand Atlantic Railway and Steam-Packet Company' proposed to build a railway from Dublin to Belmullet via Mullingar, Longford, Tulsk, Foxford, Ballina, and Crossmolina – with a branch at Tulsk for Tuam, Galway, Ballinasloe, and Loughrea.⁶⁵ Not only, they dreamed, would steamships soon ply the north Atlantic from Mayo to New York and Halifax but smaller vessels could sail to the Azores, Madeira, Spain, and Portugal. The backers assumed with 'little doubt' that the state would contribute half (£1 million) of what they estimated as the total construction costs. Sensing the risk that the plan posed to Valentia, the *Tralee Mercury* gave the Belmullet proposal extensive coverage, hoping, as they admitted, that this would serve 'the purpose of shaming out of their present apathy – if that be possible – the Nobility, Landed Proprietors, and Gentry' of Munster.⁶⁶ The publicity that the Belmullet proposal received also spurred the engineer and urban booster Patrick Knight to add a substantial epilogue to his encyclopaedic treatise *Erris in the "Irish Highlands," and the "Atlantic Railway"*, published in London and Dublin in 1836.⁶⁷ Knight was the chief architect of the new

⁶⁵ The route of the 'Atlantic railway' would likely have followed the Royal Canal as far as Mullingar and may then have been very close to the as-built Midland Great Western Railway's line to Longford (part of the present-day Dublin-Sligo railway). For more exact details of the route, see Knight, *Erris in the Irish Highlands*, pp. 150–51.

⁶⁶ *Tralee Mercury*, 2 December 1835.

⁶⁷ Knight, *Erris in the Irish Highlands*, pp. vi–vii. Knight made an extensive study of the existing literature on Mayo, including Mackenzie's charts for the coastline (1776), McParlan's *Statistical Survey* (1802), James Hardiman's *History ... of Galway* (1820), W.H. Maxwell's *Wild Sports of the West of Ireland* (1832), and various

town of Belmullet, and was closely associated with its main landlord, Carter, from the early 1820s onwards.⁶⁸ His book was clearly designed to offer to British and Irish readers a shamelessly thrusting endorsement of Belmullet's potential for economic development – only further enhanced by the prospect of a transatlantic railway route. Knight delved into Erris's natural history, its geography, geology, antiquities, infrastructure; the inhabitants' diet, health, occupations, religion, culture, and physical characteristics. He presented the barony as, until his own time, 'almost entirely neglected, or even explored, by persons of science or influence'; it was, he added, a 'terra incognita'.⁶⁹ However, in a lavish dedication, Knight referred to Carter's work as having 'raised up, as if by magic, a town in a wilderness – an *oasis* in the desert, by which cultivation has been extended in a short space of time beyond the most sanguine imaginings.'⁷⁰ He described vividly the sights that greeted a visitor to the new town, stressing its integration into the national market and cash economy, and the new visibility of state judicial and revenue administration:

'Three miles father on, through a partially cultivated but populous country, we reach the town of Belmullet, where you see industry in all its stirring shapes. Large and well-built stores, crowded with sellers of produce; shops well stocked with all kinds of goods; the masts of vessels rising at the end of the principal street lying at the pier, loading and unloading commodities; thronged quays; houses building, the sound of the mason's

reports of the engineers Bald, Griffith, and Nimmo – see Knight, *Erris in the Irish Highlands*, pp. v–vii, 1–3, 11, 29, 47–48, 79, 87, 125–26.

⁶⁸ Knight, *Erris in the Irish Highlands*, pp. 5, 120; and DIA. Knight first visited Erris in 1809 – see *Erris in the Irish Highlands*, p. 120.

⁶⁹ Knight, *Erris in the Irish Highlands*, p. 1.

⁷⁰ Knight, *Erris in the Irish Highlands*, pp. iii–iv. Italics in the original.

hammer and the carpenter's saw alternately saluting your ears; sailors, coast guards, revenue and other police, in their different costumes, and, . . . , the Union Jack floating proudly in the wind to show the residence of the inspecting [coastguard] commander.⁷¹

While Knight celebrated Belmullet's development, he also set out many 'general improvements' – by which he meant infrastructure and civil engineering projects – that would be needed to maximise its economic potential. Predictably, these included more roads and the ship canal across the isthmus at Belmullet. He dreamed that the latter might even suppress illicit whiskey distillation in the area by allowing the revenue police to move quickly along the inner coastline.⁷² More speculatively, he proposed a series of other short canals in the barony connecting the sea with various lakes, circumventing small headlands, and even the foundation of other new urban settlements.⁷³ These were accompanied by a map (**Fig. 6**) showing how a Belmullet of the future might look, with its ship canal built, more new streets, and a transatlantic railway terminus under consideration.⁷⁴ It marked sites for a future Catholic chapel and a markethouse. He hoped that the newer (yellow, northern) and the older (light red, southern) parts of the town could be linked by three drawbridges over the canal, which would have been accompanied by large floating docks, embankments, and land reclamation at both ends. If the 'Atlantic Railway' was built, he added, the canal and dredged channel could be extended, along with the many new stores and

⁷¹ Knight, *Erris in the Irish Highlands*, p. 9. Knight believed that the construction of new roads, and the visible presence of the police and the coastguard was responsible for a decline in smuggling and the illicit distillation of whiskey in his time – see *Erris in the Irish Highlands*, pp. 11, 13, 25.

⁷² Knight, *Erris in the Irish Highlands*, pp. 127–33.

⁷³ Knight, *Erris in the Irish Highlands*, pp. 133–36.

⁷⁴ Knight, *Erris in the Irish Highlands*, 'Plan of Belmullet in 1834, showing the Line of the Cut Proposed in 1824, with Improvements Suited to its Present State and Rising Trade'.

yards that the town would inevitably require. Considering how quickly Belmullet had developed in the previous decade under his watch, these plans were not as unlikely as they might seem from a post-Famine perspective, yet they were clearly still very ambitious.

Fig. 6. ‘Plan of Belmullet in 1834, showing the Line of the Cut Proposed in 1824, with Improvements Suited to its Present State and Rising Trade’. Patrick Knight, *Erris in the Irish Highlands,* and the ‘Atlantic railway’ (Dublin: Keene, and London: Longman, 1836).

Sensing the transformation that a railway might bring to the town, Knight added to his book a lengthy transcript of Bald’s evidence before the 1835 select committee, as well as his own arguments on what he saw as the unique advantages of the town and its natural surroundings.⁷⁵ The other potential harbours – Valentia, Galway, and Clew Bay – were all, as Bald had also stated, deeply unsatisfactory in some way or another. Valentia’s entrances were narrow and strewn with dangers; its inner harbour too small; it was ‘not in the direct line from Dublin to the banks of Newfoundland’; and its railway line would have been impeded by so many mountains as to render its construction ‘next to an impossibility’.⁷⁶ Examining a chart for Valentia harbour, Knight was incredulous that it was being proposed as a transatlantic gateway:

⁷⁵ Knight, *Erris in the Irish Highlands*, pp. 147–63.

⁷⁶ Knight, *Erris in the Irish Highlands*, pp. 148, 151–52.

“The Western entrance ... shoals to ... *seven feet!!!* I count *twenty-three rocks* beyond the line of low water in *two miles* of this entrance!! ... *Directly in the middle of the [other] entrance* is the “Harbour Rock,” to avoid which *four different* sailing marks are given.”⁷⁷

Galway, he argued, was exposed to the predominant winds, offered little shelter, and was far short of the most western edges of the country. Like Bald, he laid great emphasis on mathematical logic and positional geometry, arguably at the expense of a broader consideration of existing urban settlements and political realities on the western coastline. Assuming steamships moving at 10 knots and locomotives moving at twice this speed, Knight calculated that it would take trains almost 6 hours to reach Galway, 8 to Belmullet, and 10 to Valentia, but the extra distance by sea getting in and out of Galway Bay would have made this route uncompetitive when considering the overall transatlantic journey time.⁷⁸ Clew Bay, which Knight dismissed as part of some recent ‘nonsense’ and ‘dreamings’ from individuals unfamiliar with the latest charts and maps for Mayo, was obscured by ‘170 islands which crowd the head’ of the bay. Its entrances were narrow, its depths shallow, and its hazards numerous.⁷⁹ By comparison, Belmullet and its two bays had ‘not a single sunk[en] rock’, were ‘without a bar of any kind’, and had ‘plenty of sea or tacking room, and protection from all weathers’. Blacksod Bay, he suggested, could give safe anchor to ‘the whole British navy’.⁸⁰ While he called for the transatlantic question to be considered ‘fairly and impartially’, he left no doubt that he thought Belmullet was best suited for the purpose:

⁷⁷ Knight, *Erris in the Irish Highlands*, p. 152. Italics in the original.

⁷⁸ Knight, *Erris in the Irish Highlands*, pp. 149–53; and Kelly and Ó Gráda, ‘Speed under Sail’, pp. 469–73.

⁷⁹ Knight, *Erris in the Irish Highlands*, pp. 150, 153–55.

⁸⁰ Knight, *Erris in the Irish Highlands*, pp. 30–32, 150–53.

‘[It] could not probably be equalled in the British Islands. I will not go so far as to say that “God and nature intended these harbours from the beginning for the purpose of a termination for a railroad;” but I will go so far as to state confidently, that there is not, on the West coast of Ireland, any harbour so well suited for that purpose.’⁸¹

Dreams and realities

The publication of Knight’s treatise was the high-water mark for his and Carter’s hopes of developing Belmullet as a transatlantic packet station; in the years that followed its prospects rapidly diminished. This became clear in the reports of a government commission tasked with investigating the development of Irish railways and potential transatlantic steamship routes in 1836–38.⁸² They overlooked Belmullet entirely and instead commissioned surveys of Cork harbour, Castletownbere in Bantry Bay, Valentia, and Tarbert in the Shannon estuary.⁸³ Yet none

⁸¹ Knight, *Erris in the Irish Highlands*, pp. 148, 153.

⁸² *First Report of the Commissioners appointed to Inquire into the Manner in which Railway Communication can be most Advantageously Promoted in Ireland*, H.C. 1837 (75), xxxiii, p. 3. For recent studies of the Irish Railway Commission, see especially Hession’s chapter in this volume, but also Philip Lloyd, ‘The Chester and Holyhead Railway and its political impact on North Wales and British policy towards Ireland, 1835–1900’ (PhD thesis, University of York, 2017); and Philip Lloyd, ‘The Irish Railway Commission (1836–39) aiming to reform railways in the United Kingdom and to improve the governance of Ireland’, *Journal of Transport History*, 40:1 (2019), pp. 123–40.

⁸³ *Second Report of the Commissioners appointed to consider and recommend a General System of Railways for Ireland* [hereafter ‘*Second Report of the [Railway] Commissioners*’], H.C. 1837–38 (145), xxxv, p. 64 and appendix A, no. 1, pp. 1–31. For the proposed railway and steamship route to Castletownbere, see Butler, ‘Charles Blacker Vignoles’; and Butler, ‘Transatlantic Visions’.

were worth proceeding with, they admitted in their final report, on the grounds that no steamship service could ‘compete in any way with those leaving Great Britain direct.’ ‘Ireland has itself little or no traffic with America’, they continued, ‘and the cost and inconvenience of transit would be far too great’.⁸⁴ This pessimism reflected a fast-changing technological horizon: the ever-increasing speed and reliability of steamships and their proven ability to undertake long ocean journeys. The committee noted, for example, the success of the SS *Great Western* in crossing the Atlantic in 1838.⁸⁵ If an Irish route had to be established, they recommended Cork harbour; it would require the least investment in terms of new infrastructure, and a Dublin-Cork railway represented a sound business case in any event.⁸⁶ They argued that building new railway lines to Castletownbere or Valentia – simply for the purpose of a transatlantic packet route – could not be justified as a sensible use of public funds.⁸⁷ By the same logic, Knight’s advocacy of Belmullet was also a hopeless endeavour.

Other scientific advances also worked against Belmullet’s prospects. Advances in hydrography, for example, and new detailed charts for the western harbours of Ireland – in production through the 1830s and 1840s – brought into question Knight and Bald’s endorsement of Belmullet’s two bays. As scientific expertise became more specialised and disciplinary in nature, Knight and Bald – as civil engineers and sometime cartographers – had to

⁸⁴ *Second Report of the [Railway] Commissioners*, p. 63.

⁸⁵ *Second Report of the [Railway] Commissioners*, p. 4; and Smith, *Coal, Steam and Ships*, pp. 70–88. See also John Armstrong and David M. Williams, *The Impact of Technological Change: the Early Steamships in Britain* (St. John’s, NL.: I.M.E.H.A., 2011).

⁸⁶ *Second Report of the [Railway] Commissioners*, p. 71.

⁸⁷ *Second Report of the [Railway] Commissioners*, pp. 64–65.

give way to nautical and hydrographical experts such as Beaufort.⁸⁸ This was painfully clear in the evidence of a Captain Evans of the Royal Navy, presented to the railway commissioners as part of their deliberations. He dismissed outright any prospect of Blacksod bay, and thereby Belmullet, being a transatlantic steamship harbour. Breakwaters, he argued, would need to be constructed to shelter vessels from the winter gales, and ships had recently been grounded on a dangerous rock in the bay. One ship had been saved ‘with great difficulty’, he added, ‘by the exertions of the Coast Guard.’ The ‘worst feature’ of the bay, he thought, was that there was ‘no safe place’ for shelter to the south if a ship was unable to beat into a strong northerly wind. ‘I do not think’, he concluded, ‘Black Sod at all eligible for a packet station.’ Furthermore, Clew Bay, Galway, and Valentia all had significant problems, and his only endorsement came for Castletownbere in the far south-west.⁸⁹

When a Irish transatlantic packet route was eventually established – many years later and in a very different context after the Great Famine – it was Galway that was eventually selected by yet another government commission.⁹⁰ The increasing size and speed of steamships meant that the route was not intended to serve as an intra-imperial infrastructural network connecting Britain and North America on the scale and ambition that had been dreamed in the 1820s and 1830s.⁹¹ The enquiry took extensive evidence from navy officers and maritime experts on nine

⁸⁸ Katharine Anderson, ‘The Hydrographer’s Narrative: Writing Global Knowledge in the 1830s’, *Journal of Historical Geography*, 63 (January 2019), pp. 48–60.

⁸⁹ *Second Report of the [Railway] Commissioners*, appendix A, no. 6, pp. 70–72.

⁹⁰ *Irish Trans-Atlantic Packet Station: Report of the Commissioners appointed to Inquire as to the Proposal for an Irish Packet Station*, H.C. 1851 (1391), xxv, p. 13.

⁹¹ *Irish Trans-Atlantic Packet Station: Report of the Commissioners*, pp. 14–17.

different potential western harbours, but Belmullet was not one of them.⁹² Indeed they used this evidence to end any possibility of Valentia – for so long the front-runner – being developed as a packet route.⁹³ Instead their recommendation was to use the port of Galway – a route known as the ‘Galway Packet-Boat’ or the ‘Galway Line’. This had in turn a very chequered political and financial history and fell far short of the fantastical visions put forward by Bald and Knight.⁹⁴ The report ended any prospect for Belmullet’s development, and the town’s post-Famine history was certainly less remarkable than its first twenty years. As mentioned above, Knight’s ship canal (**Fig. 7**) was eventually constructed. This happened in 1845–51, during the Great Famine, but only with substantial financial assistance from the Board of Public Works.⁹⁵ It was less ambitious in its design and ancillary facilities than Knight had initially proposed and served mostly local fishing needs. As with so many Irish towns, Belmullet’s urban footprint hardly expanded in the second half of the nineteenth century.⁹⁶ Its rate of population increase also slowed dramatically,

⁹² *Irish Trans-Atlantic Packet Station: Report of the Commissioners*, pp. 10–17 and appendices, especially pp. 277–86.

⁹³ *Irish Trans-Atlantic Packet Station: Report of the Commissioners*, pp. 10–11. Yet within a decade Valentia was the site chosen for a new transatlantic telegraph cable, a new technological innovation that echoed these older debates.

⁹⁴ Timothy Collins, *Transatlantic Triumph and Heroic Failure: the Story of the Galway Line* (Cork: Collins Press, 2002); James Mitchell, ‘Galway as a Prospective Packet Station: the Transatlantic Voyage of the “Viceroy”, June 1850’, *Journal of the Galway Archaeological and Historical Society*, 65 (2013), pp. 75–89; and Kanter, ‘The Galway Packet-Boat Contract’.

⁹⁵ *Fifteenth Report of the Commissioners on Public Works, Ireland*, p. 8; *Nineteenth Report of the Commissioners on Public Works, Ireland ... for the Year 1850*, H.C. 1851 (1414), xxv, appendix A, pp. 12–13, 32–33; appendix E, pp. 158–59; and Noone, *Where the Sun Sets*, p. 75.

⁹⁶ Belmullet’s stagnation is apparent in a comparison of the relevant Ordnance Survey six-inch (1838) and the twenty-five-inch (1897) maps.

with an urban population jumping from essentially zero in the 1820s to 585 persons in 1831, 637 in 1841, and a peak of 935 in 1851. This then fell to 852 persons by 1881 and just 566 by 1924, the result of sustained economic decline and emigration.⁹⁷



Fig. 7. The former ship canal, Belmullet, Co. Mayo, looking west. Photograph by author, 2014.

⁹⁷ Knight, *Erris in the 'Irish Highlands'*, p. 146 (for 1831); *Census of Ireland 1881: Area, Population and Number of Houses; Occupations, Religion and Education, volume IV: Province of Connaught*, H.C. 1882 (Cd. 3268), lxxix, p. 321; and *Saorstát Éireann, Census of Population, 1926, volume 1: Population, Area and Valuation of each District Electoral Division and each Larger Unit of Area* (Dublin: Stationary Office, 1928), p. 18.

In terms of railway infrastructure, many of the coastal towns that aspired to be transatlantic packet stations in the 1830s had to wait many decades for trains to arrive. A branch to Valentia was eventually constructed but only in 1893, and this closed in the 1960s.⁹⁸ While the Dublin to Galway route opened relatively early in 1851, in Mayo the Midland Great Western Railway reached Westport only in 1866 and Ballina in 1873.⁹⁹ Both of these single-track lines were extended later in the nineteenth century with substantial government assistance, from Ballina to Killala in 1893, and from Westport to Achill Sound in 1895; neither, however, had the lofty aspirations of serving north Atlantic traffic and both closed in the 1930s.¹⁰⁰ Despite various proposals for railway links to Belmullet in the late nineteenth century, none were in fact built.¹⁰¹ Indeed, in a remarkable inversion of early enthusiasm for developing a transatlantic packet station in Belmullet and Castletownbere, both these places were the only towns of any significance to be more than 30 kilometres (in a straight line) from a railway station when the national network was at its apogee in the early 1900s.¹⁰² There was clearly a great gulf between the early dreams for railway infrastructure in Ireland and the realities of its construction and day-to-day operation.

⁹⁸ *Kerry Sentinel*, 16 September 1893; and *Irish Independent*, 19 November 1959 and 27 March 1961.

⁹⁹ *Connaught Telegraph*, 6 August 1851; *Freeman's Journal*, 2 February 1866 and 2 June 1873; and Ernie Shepherd, *The Midland Great Western Railway of Ireland* (Leicester: Midland Publishing, 1994), pp. 17 and 57–58.

¹⁰⁰ *Western People*, 11 February 1893; *Irish Daily Independent*, 14 May 1895; *Western People*, 3 October 1931 and 5 May 1934; and Shepherd, *Midland Great Western Railway*, pp. 47–48 and 65–66.

¹⁰¹ Shepherd, *Midland Great Western Railway*, pp. 44–47; and Noone, *Where the Sun Sets*, pp. 81–82.

¹⁰² Map of Irish railways produced as part of the 'Viceregal Commission on Irish Railways including Light Railways, 1906'; and Charles A. Fisher, 'Evolution of the Irish Railway System', *Economic Geography*, 17:3 (July 1941), pp. 262–74.

There was, however, one last engineering dream that placed Belmullet at the centre of north Atlantic exchange. This came very late, in 1915, but deserves mention here on account of its extraordinarily ambitious nature, which rivalled Knight's 'Atlantic Railway' of almost a century before, and the survival of architectural drawings showing the proposed design of its vast railway terminus. Its context was the First World War and an attempt to safeguard north Atlantic traffic from attack by German submarines by providing an 'All-Red Route' across Ireland with a deep-water port for the 'largest liners' carrying people and goods from Britain to the United States and Canada.¹⁰³ Labelled the 'Blacksod Bay Railway Terminus Station', this concourse, built of reinforced concrete, was probably intended for Blacksod Point rather than the nearby town of Belmullet. However, the railway would have by necessity passed through the town and might have offered a station.¹⁰⁴ The architects of this remarkable building, the published drawings for which were perhaps more wartime propaganda than serious proposal, were Edward Barclay Hoare (1872–1943) and Montague Wheeler (1874–1937) of London. They proposed a grand neo-classical edifice of immense scale for passengers transferring from train to steamships. Its main 27-bay façade (**Fig. 8**) would have been almost 600 feet in length and decorated with porticos in the Greek Doric style. The entire terminus was to have been built 'on a reef of rock projecting into Blacksod Bay'. Inside, an airy, barrel-vaulted hall (**Fig. 9**) would have given access to waiting and dining rooms, an 'American bar', and outlets for purchasing tobacco, candles,

¹⁰³ *Connaught Telegraph*, 16 October 1915; Noone, *Where the Sun Sets*, p. 82; and Anthony Hickey, 'Story behind Ballina to Killala railway', *Mayo.me*, May 2018 (<https://www.mayo.me/fascinating-story-behind-ballina-to-killala-railway-line> [accessed 11 November 2019]).

¹⁰⁴ The proposed route of this Belmullet railway was to follow the Dublin-Sligo railway as far as Collooney, Co. Sligo, and then veer west along the Sligo and Mayo coastline to Belmullet and Blacksod – see *Western People*, 30 October 1915.

newspapers, and Irish lace.¹⁰⁵ This dream of the future was of course heavily conditioned by the context of war, and its prospects vanished with the end of the conflict and the coming of Irish independence.¹⁰⁶ It also marks a technological shift and the end point of transatlantic visions involving steamships and railways; later concepts were focused not on shipping links via Belmullet but on aeroplane routes via Shannon.¹⁰⁷

Fig. 8. ‘Blacksod Bay Railway Terminus in the Harbour, Mayo, Ireland’, by Edward Barclay Hoare (1872–1943) and Montague Wheeler (1874–1937) of London. Exterior perspective sketch. *The Building News and Engineering Journal* 109:3171 (13 October 1915), opposite p. 410.

Fig. 9. ‘Blacksod Bay Railway Terminus in the Harbour: Interior of the Station Hall’, by Edward Barclay Hoare (1872–1943) and Montague Wheeler (1874–1937) of London. Interior perspective sketch. *The Building News and Engineering Journal* 109:3171 (13 October 1915), opposite p. 410.

¹⁰⁵ *The Building News and Engineering Journal* 109:3171 (13 October 1915), p. 410 and 3 illustrations; Royal Academy exhibition, 1915 (no. 1620); and DIA.

¹⁰⁶ *Freeman’s Journal*, 20 February 1917 and 23 October 1918; *Tuam Herald*, 31 August 1918; and *Sligo Champion*, 1 November 1919.

¹⁰⁷ H.C. Brookfield, ‘Ireland and the Atlantic Ferry: a Study in Changing Geographical Values’, *Irish Geography*, 3 (1955), pp. 69–78, at pp. 74–76.

Conclusion

The prospect of Belmullet forming part of an intra-imperial infrastructural network – forging a link between Britain and North America, between the ‘old’ and the ‘new’ worlds – was a dream for a better future in nineteenth-century Ireland that grew out of the confluence of a range of local, national and international agendas. At its heart was a belief that the island of Ireland could become a land-bridge for the faster, safer, and more efficient movement of people and goods across a critical maritime axis of the early nineteenth-century British empire. The ‘Atlantic railway’ promised in turn an Ireland that could move beyond its peripheral and impoverished past and undergo a political, economic, and cultural transformation that would bring prosperity and cement the country’s position within the United Kingdom and within the British empire. The Atlantic railway thus represented an Anglo-Irish as well as a (trans)Atlantic union and offered the prospect of strengthening British hegemony in the North Atlantic against increasing competition from other European powers and the United States. The scheme might have brought prosperity and a new geo-political importance to a small and recently founded coastal town in west Mayo. While Belmullet was never the front-runner to be selected for such a substantial new infrastructural network, its backers believed that there were several reasons why it was better suited than other western harbours such as Valentia or Galway. Their advocacy in turn rested fundamentally on scientific advance in diverse and rapidly developing disciplines such as cartography, hydrography, geology, astronomy, structural and mechanical engineering, and material science. Belmullet’s prospects grew out of the networks of new roads that made known what contemporaries had referred to as a ‘terra incognita’ in the early nineteenth century, gave a rationale for the town’s development, and brought west Mayo more broadly into the national market and cash economy. At the centre of these transformations were the visions of engineers and urban promoters such as Bald and Knight, who traded in expertise, mathematical precision, and technological utopianism. Their discourse was one of heterogeneous engineering: the

balancing of technical and socio-cultural questions. In the rapidly accelerating technological developments of the early nineteenth century, these engineers saw through their early adulthood a host of rapid transformations: from sail to steam, from horse to locomotive, from road building to railways, from days to hours, from assumption to fact, from generalisations to specifics, and from approximation to precision. It was not without some irony – as they surely must have realised in their old age – that the unstoppable advance in technology with the increasing speed of steamships was what also rendered obsolete their dreams that Ireland could assume a special position within transatlantic exchange. Their technological and geo-spatial dreams of modernity remained just that: extraordinary, unrealized visions of an alternative future.

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