Chapter 13

The View from the Hills: Environment and Technology in Victorian Periodicals

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'Is then no nook of English ground secure? From rash assault?' asked William Wordsworth in 1844, protesting against the planned construction of a rail link between Kendal and Windermere. However, poetry goes only so far in public debate about issues with complex technical, economic, and political implications. Wordsworth followed up his initial sally—a sonnet published in pamphlet form—with a more substantial assault on public opinion. In several long letters to the editor of the Morning Post, he celebrated the inviolate beauty of the Lake District while casting aspersions on both the motivations of the railway projectors and the tastes and habits of their prospective customers. In relation to the theme of this volume, what is most interesting about these letters is not their length, or their eloquence, or even their passion. It is certainly not their efficacy, since Wordsworth's cause was lost before they were published. Supported by powerful local interests as well as by its projectors, the Windermere Railway was already in an advanced state of planning by 1844, and it transported its first passengers in 1847. What is significant is Wordsworth's decision to argue his preservationist case before the court of public opinion, as embodied in the periodical press. Of course, this was hardly an unusual choice for a participant in such a debate. On the contrary, Wordsworth's strategy was typical of his time. Although his status as great man and poet laureate gave him privileged access to the national press, especially considering the local nature of his concern, by 1844 journalism had become an obvious option for anyone with a political axe to grind.

In the course of the nineteenth century, many people found themselves in positions similar to Wordsworth's, not just in wishing to air a grievance, but in wishing to air a grievance of the same general type. The installation of the modern infrastructure of transportation and sanitation, as well as the burgeoning growth of population and manufacturing, meant that no life, however remotely and quietly it was lived, was safe from disruption by major land appropriation and vast public works. Any large engineering enterprise was likely to inspire at least some local resistance and published discussion, and many such projects claimed the attention of the national media, at least briefly. For this reason the periodical press offers an essential source of information about what might be considered proto-environmental confrontations. In addition, such issues reciprocally provide a powerful lens with which to examine the periodical press—in particular, the way
that the press explained technological developments and analyzed their potential effects on people and places. Or perhaps it would be more accurate to say, an interesting set of lenses. Even the soberest magazine or newspaper commentators were unlikely to command either the time or the space necessary to present a detached, comprehensive account of an issue that engaged so many conflicting and overlapping interest groups, and posed such a variety of technical problems, as the mere extension of a branch railway line, let alone any of the much grander undertakings with which Victorian Britain was dotted and laced. Even fewer had the expertise or the inclination to explain these complexities to audiences that may have shared their deficiencies. Certainly Wordsworth did not aspire to comprehensiveness or detachment. On the contrary, his letters emphasized aesthetics and emotion; he left serious consideration of, for example, technology and economics to other writers.

Moreover, there were always others; indeed, many others—especially when the planned project (and thus the financial stakes) was larger. Sometimes, when describing the most elaborate enterprises, journalists seemed like the blind men each of whom groped a very different feature of the same elephant. Their interventions—not only the side on which they argued, but the facet of the elephant they chose to emphasize—illustrated the varied ways in which the Victorian periodical press approached technological and environmental issues and the range of audiences thus addressed. Such discussion also implicitly defined the periodical press as a single web or continuum, although retrospective scholarship has tended to consider certain journals—Punch or Blackwood’s Edinburgh Magazine or the Quarterly Review, for example—as distinct islands emerging from an inchoate sea. This paper makes no distinction between different kinds of periodicals, however. Indeed the continuum extended beyond the periodical press per se, into other forms of public expression such as printed ephemera and the records of meetings, which were apt to resurface in journalistic versions with only minimal alterations. With respect to Manchester’s purchase of Thirlmere, for example, the Journal of Gas Lighting, Water Supply, and Sanitary Improvement reproduced the parliamentary debate at length and without any comment at all.3

This purchase was the foundation stone of one of the major public works projects of the last quarter of the nineteenth century, perceived by Wordsworth’s spiritual heirs as a renewed technological threat to the Lake District. It involved the construction of a dam at the northern end of Thirlmere, a long narrow lake that flanked the main road between Ambleside and Keswick. The dam converted the lake into a reservoir for the city of Manchester. In consequence, Thirlmere’s depth and surface area were both significantly increased, and its waters, which had originally drained north into Derwent Water, were carried south to Manchester through a hundred-mile-long pipeline, itself a major engineering project that caused significant disruption in all the territory through which it passed.

The city fathers of Manchester did not commit themselves to this enormous undertaking carelessly or capriciously. Finding the ever-increasing amounts of water required for both industrial and domestic uses was a problem experienced by all Victorian manufacturing towns. The problem intensified with time, because both population and industry increased at unforeseen rates, and also because standards of domestic hygiene, especially for the working classes, rose markedly in the course of the nineteenth century. In the early Victorian period, the Manchester city fathers thought that they had solved their water problem by building a massive series of reservoirs at Longdendale, roughly twenty miles east of Manchester. Even as the first Longdendale water arrived in 1851, however, politicians and engineers began to foretell a not-so-distant future when it would be insufficient to supply the city’s needs. There were no other appropriate reservoir sites anywhere in the vicinity; all had already been claimed by the many smaller industrial towns which surrounded Manchester on all sides. So the search for water was resumed much farther afield, in the relatively hilly, unpopulated, and rainy Lake District. All of the larger lakes were considered for conversion. Ultimately, in the early 1870s, Thirlmere emerged as the most promising candidate. It had several practical advantages. It lay within a circle of steep hills that would make it relatively easy to dam and flood, and its elevation, the second highest of any of the Cumbrian lakes, would simplify the engineering of the hundred-mile-long pipeline. Tests had revealed that Thirlmere’s water was pure and of high quality, which meant that an expensive purification plant would not be necessary. Its shores were undeveloped and lightly populated, which should have simplified the purchase of property.

Once the decision had been made, the Manchester Corporation tried to acquire as many lakesides acres as possible before their intentions became public, after which, they knew as shrewd businessmen, complications would arise at least in the form of inflated asking prices. The complications, which were orchestrated by an ad hoc group known as the Thirlmere Defence Association, turned out to be more formidable than they had anticipated. In 1878, they included the obstruction of the enabling act of Parliament, as well as high-profile opposition in both the national and the international press. The following year, however, the Manchester Corporation Water Bill passed easily into law on the second attempt, and in due course the enormous works were commenced. The water level of the lake was raised; its neighbouring populations of sheep and people displaced; the surrounding roads rebuilt by an army of workmen who made unprecedented social, technical, and environmental demands on the area. In 1894 the first Thirlmere water arrived in Manchester, accompanied by official dinners for the elite (one at each end of the long pipeline), and fireworks and dancing in the streets for the hoi polloi. However, although this event was celebrated (or mourned) as a completion, its finality was more apparent than real. The struggle continued, in the periodical press as well as in other places, as die-hard preservationists attempted to make the corporation keep its promises to respect the scenic, historic, and recreational features of the landscape which had become a kind of rural colony of Manchester.

This sustained enterprise and resistance inspired a stream of commentary in every kind of periodical. What is immediately noticeable about this commentary is its extreme diversity in terms both of the way the subject was defined and of the points of view expressed. The Thirlmere scheme involved a confrontation between two powerful Victorian icons: the Lake District, symbol (however inconsistently) of both natural beauty and unspoiled countryside, and Manchester, symbol of modern industrial progress. Indeed, articles from all perspectives were often headlined ‘Manchester v. Thirlmere’, as if they reported a court case or a boxing
match. Enhancing the sense of opposition—of incompatible alternatives—was the tendency of the preservationists to couch their arguments exclusively in terms of what was to be lost, while the progressives couched theirs exclusively in terms of what was to be gained. Preservationists often adopted a tone that was nostalgic, emotional, and evocative of aesthetic value. Progressives loaded their discussions with statistics and financial estimates. In the course of the initial skirmishing before the enabling legislation was passed, both sides published digests of supportive commentary from the periodical press. The Thirlmere Defence Association published a small pamphlet containing very brief statements (often only a few sentences) of moral commitmen culled from a variety of local and national periodicals. The Manchester Corporation Water Works Committee published a more substantial tome consisting of fewer articles, mostly from local newspapers, in which the technical and economic reasons for selecting Thirlmere were rehearsed in detail, along with the social benefits anticipated from a reliable supply of fresh, pure water.

Clichés fell thick and fast as opposing controversialists nailed their colours to the mast. The lake’s defenders were especially enthusiastic in their embrace of this strategy. Thus Punch flippantly characterized Manchester’s intentions in 1878: ‘we must presume that water cannot be got at by boring to any possible length, for what would be in comparison with so monstrous a bore as the enormity of spoiling, if not abolishing, Thirlmere Lake, by turning it into a reservoir?’ The Spectator proclaimed: ‘it all sounds very big and very ugly and very revolting.’ The Gentleman’s Magazine called it ‘utilitarianism run mad.’ The Builder offered a ‘word as to the real probabilities of the effect upon Thirlmere and the Lake District’, observing: ‘it is to be regretted that the promoters of the scheme have volunteered to say what they mean to do will not spoil the district or the appearance of the lake. That is rubbish.’

This clash of allegiances underlay all more substantive analysis. It often led combatants not only to misrepresent and caricature each other’s positions, but also to misunderstand them. Thus the Pall Mall Gazette implied that the projectors of the Thirlmere scheme were crassly oblivious to all but pecuniary considerations:

> it is time to [...] save Thirlmere from the fate of the Irwell. The visible universe was not created merely to supply materials towards the manufacture of shoddy. If Manchester and the neighbouring towns really need water for necessary purposes, they should be taught that they must not expect to get it in the cheapest market, to the disregard of all but commercial considerations.

If the defenders of Thirlmere based their protests on sensibility, and the appeal to somewhat nebulously defined higher values, their opponents defined the contested issue as one that required expertise. This expertise could be of various kinds. Most frequently it belonged, directly or by report, to John Bateman, the supervising engineer of the proposed waterworks, and his colleagues, or, when the issues were managerial, to the members of Manchester City Council. However, a range of other authorities also contributed their views. For example, the Health Journal (which was published in Manchester for a national audience) claimed that water supply was ‘essentially a sanitary question’ and therefore weighed in to challenge the assumption ‘that a supply of 20 gallons per head, per diem, is sufficient’ as had been suggested by some who wished to minimize Manchester’s need for additional water. Instead it proffered the more generous figure of thirty-five gallons to accommodate baths and water-closets, not to speak of manufacturing. When they were couched in technical terminology and buttressed with statistics, most contributions to the debate supported the dam builders. There were, however, occasional exceptions. Nature identified ‘the question of the amount of compensation water which should be returned to streams which are impounded for the purpose of water-supply’ as an issue of ‘the gravest national importance’, declaring: ‘it is with regret we notice that though he proposes to take eventually 50 million gallons per day from Thirlmere, he only intends to return 5½ gallons a day to St. John’s Beck.’

Technical argumentation was not confined to periodicals that served audiences of specialists. On the contrary, the most elaborate expositions often appeared in general audience periodicals, albeit those with an audience guaranteed to be sympathetic to the massive engineering project. Indeed, the willingness to absorb information in these forms could serve as a polemical distinction between reservoir advocates and their opponents. For example, one lengthy treatment of the topic that appeared in the Manchester Examiner during the early phase of debate began with the condescending suggestion that opposition arose because the scheme was ‘only partially comprehended’ or, still worse, ‘greatly misunderstood’. Armed with a battery of figures—in gallons, pounds, and a range of other units of measure—and with repeated reference to the technical reports voluminously produced by John Bateman, the anonymous author took on the objectors point by point. Was it suggested, he asked (as it had been in the British Architect and Northern Engineer), that ‘the alternative does not lie between the defacement of Thirlmere and the desolation of Manchester by thirst’, that ‘There are other great sources of supply as accessible, more abundant, already preferred by its engineer, with water as pure, pressure as great or greater’? On the contrary, he asserted, all possible alternatives had been considered and rejected. The Bishop of Carlisle’s proposal that ‘in the high moorland above Tebay [...] an admirable water-gathering ground might have been discovered’, which had been made conspicuously in a letter to The Times, revealed only his ignorance of engineering and his indifference to economy. The unsightly mud that some feared would be exposed when drought lowered the level of the reservoir, as it would surely do sooner or later, was a fantasy—there would be no mud to be exposed, only rocks. In terms of beauty, the surroundings of the new lake would be less wild and rugged, but the water surface itself would be enlarged (always a good thing from this perspective), and if the existing islands were doomed to submergence, two noble existing promontories would be converted to more distinguished islands, so that ‘in the matter of islands’ the lake would be ‘immensely improved’.

Of course some of these assertions were more conclusively demonstrable than others, even if all relied on what a Manchester Guardian journalist called the ‘mass of information [...] placed at our disposal through the kindness of the Waterworks
Committee. Moreover, although they preferred the data-rich high ground, the advocates of the dam did not confine themselves to the sober recital of facts or assertions. When the debate became heated they could counter-attack in kind. Alarmists were slyly reassured that the small church at Wythburn would remain on dry land, although the church boasted of ‘no architectural features except those common to barns’. Alternatively, they were bombarded with invective that turned their own elevated rhetoric against them:

It is time that a protest should be made against the tyranny [...] of the people, in whose mouths the cant of aestheticism is always to be found. None but those who are the slaves of modern sham-artistic affectations will venture to suggest that, in the Scheme of Providence, the water which nature stores in Thirlmere is not designed to serve a more important purpose than the addition of one more item of pleasure to holiday makers already almost satiated in their pursuit of the beautiful and romantic. There are fortunately but few who can rise to the height of cynicism implied in the suggestion that hundreds of thousands of dwellers in this district are to suffer, socially and physically, from an insufficient supply of water simply in order that a few dozens or hundreds [...] of tourists should annually be able to find one additional picturesque attraction in the otherwise sufficiently numerous beauties of the Lake District.

When the heat of battle had subsided and the dam had been built, it became possible for journalists to see more than one side of the issue. Indeed, in retrospect, the distorting partiality of the early combatants emerged clearly. Writing in the North Lonsdale Magazine and Furness Miscellany long after the initial clashes, a pseudonymous author reflected:

If the objectors erred in making hasty statements, and charging the Corporation with more in the way of spoliation than was deserved, the promoters erred in want of appreciation of the motives of their opponents, and in impatience, if not in contempt, of the anxiety of the ‘sentimentalists,’ as they called them, to keep the beautiful lonely lake out of the hands of ‘landscape gardeners’. Even this dispassionate Cumbrian was not completely reconciled to the transformed lake, however: ‘I am not one of those who complain that it has very little beauty left, but it cannot be denied that it has lost certain charms since the Manchester Corporation set to work upon it. [...] It is still beautiful; but it is not the natural lake which the engineers found, and which Wordsworth and Coleridge knew.’

Mancunian observers after the fact arrived at similarly predictable conclusions. The Journal of the Manchester Geographical Society noted: ‘the contrast between the Thirlmere reservoir and the other lakes of the Lake District is not [...] so striking as might be expected’, so that ‘to the ordinary tourist [...] there are only one or two places where the artificial nature of the Thirlmere lake, in its present form, is obvious’. A Manchester weekly triumphantly recapitulated the conflict, claiming: ‘there is nothing more lovely in Europe than the [...] Westmorland and Cumberland scenery. […] But for our present purposes we have to look upon Thirlmere and its surroundings, not with the eye of the lover of the beautiful, but with the microscope of the engineer, bent upon securing huge stores of water. And regarded from this point of view Thirlmere is attractive still!’

As periodical journalism about the Thirlmere scheme displayed the variety of discussion inspired by massive technological enterprises, it also illustrated the limits of such arguments in several ways. From what might anarchronistically be called the environmentalist position, it showed how difficult it was to defend intangible values against claims firmly concretized in fact and abstracted in figures. However, these facts and, especially, figures produced their own problems of appeal and comprehensibility. In the period since the Thirlmere scheme was completed, the difficulties of conducting a public discussion that requires participants to master significant technical information have been repeatedly demonstrated. Perhaps the only truly appealing way to package such material for broad public consumption was the road chosen by the Illustrated London News. On the day that the first Thirlmere water flowed into Manchester, it published a celebratory spread that characterized the project as a ‘daring enterprise and a memorable engineering work’. It offered no gory details and conspicuously elided the technical bases for various important decisions. Indeed, the intention to spare readers the more taxing aspects of the story was repeatedly foregrounded. The announcement that it was ‘not necessary to enter in detail into the circumstances which made the abandonment of the old waterworks as a staple source of supply an absolute necessity’, was followed by another, that it was determined, after processes which could be “rapidly passed over, to secure a site in the midst of the Cumberland lakes”, and finally by the assertion that “as to the accuracy with which the laborious work of surveying was performed,” there was ‘no need to speak’. There were, on the other hand, plenty of pictures. Readers could look at the images of the rugged old lake and the imposing new dam, then look into their hearts and judge their own feelings. Half a century of periodical discussion of similar themes and issues proved Wordsworth to have been prophetic as well as past.

Notes
4 ‘Boring for Water’, Punch 75 (1878), 96.
Chapter 14


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Readers of late nineteenth-century books and periodicals were regularly addressed as potential consumers of new technological luxuries. From the early 1880s proponents of the incandescent electric light used such media to present it as a safe, hygienic, and economic alternative for homes hitherto besmirched and poisoned by the effluvia of gas lamps. In October 1880, for example, the North American Review published ‘The Success of the Electric Light’, Thomas Edison’s tendentious attack on the alleged dangers of gas lighting. The new electrical generating technologies of Edison and his rivals were more subtly discussed a year later in ‘The Development of Electric Lighting’, an anonymous contribution to the British Quarterly Review. In his technical survey of recent advances in equipment at the Paris Electrical Exhibition, the freelance inventor and electrician, James Gordon, sought to rebut the prevailing consensus that the provision of domestic electric lighting was a financially unviable enterprise. Importantly, Gordon also aimed to address concerns Quarterly readers might have about the ‘glare’ of the electric light and especially its ‘harsh’ effect on ladies’ complexions. He thus advised that a suitably shaded electric lamp would yield a ‘beautiful soft light’, just like that of its gas counterpart.

Such evidence from the periodical press enables us to challenge a long-held assumption among historians of technology that electricity was a self-evidently superior illuminant to gas, naturally taken up by consumers when economic conditions were congenial. Such accounts overlook the alternative representations of electric lighting as, for example, aesthetically unpleasant for women or a wanton luxury for men, as depicted in the Punch cartoons analysed below. In this chapter I focus on attempts by ‘Mrs J. E. H. Gordon’ to help her engineer husband overcome such consumer scepticism, comparing the gendered assumptions of and projected audiences for her handbook Decorative Electricity and a Fortnightly Review article on the same theme, both published in spring 1891. I then show how reviews of Alice Gordon’s book in a wide range of periodicals cut across such conventional scholarly boundaries of general versus technical, engineering versus domesticity,