Chapter 11

Science, Industry, and Nationalism in the
Dublin Penny Journal

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The history of Ireland is more often conceived as a series of political and economic disasters than as a seamless continuum of events: in scientific parlance, catastrophism rather than uniformitarianism. Each catastrophe leaves the country devastated, sunk in a torpor from which it proves almost impossible to emerge. The 1798 Rebellion, with the loss of over 30,000 lives, and the Act of Union with Britain that followed it in 1800 are noted particularly as a time of great depression in Ireland. The dissolution of the Irish Parliament, and with it the downgrading of Dublin’s status as a capital city, initiated another wave of emigration of Irish intellectuals to England and the consequent loss of resources. As far as publishing is concerned, the extension of England’s Copyright Act to Ireland in 1802 devastated the reprint industry that had been the mainstay of publishers in Dublin and the provinces. Charles Benson quotes the testimony of William Wakeman, bookseller and agent for a London publishing firm in Dublin, before the commissioners of inquiry ‘into the collection and management of the revenue arising in Ireland’:

Do you know anything of the printing of books here?—It is comparatively nothing in Ireland, except a description of Catholic books of a very cheap sort, which are sold at so low a rate, that they could not be printed in England for the same money, and also a few school-books used exclusively in Ireland.

Is it diminished or increased?—since the Act of Union it is almost annihilated; it was on the same footing as America previous to that time, and every new book was reprinted here; but since the Copyright Act has been extended, that cannot now be done openly.1

By the 1820s, however, and particularly with Catholic Emancipation in 1829, the tide seemed to be turning, with a new generation of nationalists ready to begin again. William Carleton, in the general introduction to a new edition of his very successful Traits and Stories of the Irish Peasantry (1843–44), noted with satisfaction that his work was published in Ireland and was selling extremely well both at home and abroad. He continued:
Certainly, by 1833 a host of new periodicals, both conservative and radical, had appeared to compete with their English and Scottish rivals.

The Dublin Penny Journal (DPJ) was one of these, publishing its first eight-page (sixteen-column) issue on 30 June 1832. At the outset its editors and proprietors were Caesar Otway (1780–1842) and George Petrie (1789–1866). Otway was a Church of Ireland cleric and until 1831 editor of the Christian Examiner, a journal published in Dublin from 1825 to 1839 that regularly included selections of fiction, much of it by William Carleton. Otway’s articles in the DPJ appeared under the pseudonym Terence O’Toole. Petrie was an artist, antiquary, and soon to be head of the Historical Section of the Ordnance Survey in Ireland. Petrie’s biographer reported: ‘The success of Lord Brougham’s project of a penny journal, from which politics and polemics were excluded, led the Revd Caesar Otway, a distinguished and patriotic clergyman, to bring out a work of the same class in Dublin, and Petrie, ever ready to help in any effort for public good, became associated with him.’ John Folds, the printer and publisher of the journal, was also a frequent contributor.

In 1832 Petrie and Otway had a clear audience and focus in mind for the DPJ. Their preface to the first volume, dated 25 June 1833, referred to the English Penny Magazine of the Society for the Diffusion of Useful Knowledge and declared it totally unsuited to the minds and preoccupations of the Irish: ‘too useful’, in fact, ‘too foreign or too British’, and too generally serious for the ‘mercurial and laugh- ing-loving temperament of the people of Ireland’. The first issue amusingly noted the superiority of the assumed audience of the DPJ: ‘It is a positive fact that the tone of an Irish Penny Journal must be more elevated than an English one, because the lower classes of the Irish are more intelligent than the English’. What was needed to lift the spirits and engage the energies of a defeated people was a national periodical full of useful information about Ireland itself, but not politics or religion—subjects readily acknowledged as inflammatory. Appropriate subjects would be ‘history, biography, poetry, antiquities, natural history, legends and traditions of the country’. The prejudices the editors faced came not only from a working class used to political tracts and daily newspapers, but also from an intelligentsia with a deep-seated ‘prejudice against what was home-bred and national’. Interestingly, they also noted resistance from booksellers, who made little profit out of selling penny magazines, and from the daily press, who felt threatened by the appearance of a competitor in the market for cheap literature. Two weeks into publication the editors made a plea to readers: ‘We would be sorry to make our little journal a medium for injecting on the public the petty jealousies of trade: but an ungenerous attempt has been made to crush us, and we look significantly for IRISH support.’ Finally, in the preface to the first volume they claimed that after a year the DPJ had not paid its way, despite good sales, and that they had been obliged to depend on the free labour of like-minded patriots. They appealed to the ‘higher orders’, whose duty it should be to sustain a non-political, non-political journal in the interests of social harmony and cultural pride. Again a comparison was made with England, where the patronage of the great had been instrumental in the work of spreading useful knowledge. National interest and honour demanded a similar response from Ireland’s ruling class. That the vast majority of this ruling class, the Anglo-Irish Ascendancy, had studiously ignored the penny press was not lost on the editors. Many articles in the DPJ called on landlords to shoulder their responsibilities: to improve their holdings and consequently the living standards of their tenants by employing new technologies and increasing Ireland’s manufacturing base. Significantly, in the early issues of the journal there was little of the moralizing tone directed at the peasant or working class so frequently found in English penny journals.

At the end of the first number of the DPJ Petrie and Otway again emphasized the national character of the magazine: ‘It is an Irish undertaking altogether—Irish paper—Irish printing, the woodcut was done expressly for this number by an Irishman—Clayton—and we therefore claim Irish support.’ In the second number the editors boasted a circulation of 15,000 copies four days after publication, a circumstance that led them to note that Irishmen are ‘neither deficient in pence or spirit’. By April 1833, following letters from readers claiming that the issues were too local, too scientific, or not scientific enough, the editors began to wonder exactly what kind of knowledge would most benefit the people of Ireland. In three and a half columns John Folds defended the types of articles found in recent issues. Against the charge of ‘dryness’ he called upon Irishmen to show pride in their country rather than holding themselves up to ridicule in periodical stories that ‘would identify stupid cunning as a prominent feature in the character of the nation’. Scientific information was included to ‘give to its possessors a manly and practical cast of mind’. Archaeology was emphasized in order to put right the fantasies in the public mind about Ireland’s past. Chemistry, Agriculture, Astronomy, were there to wean the ‘lower and middle classes’ away from dabbling in the classics; science, he claimed, ‘fills the mind with ideas’, classics with words only. The article was a call for dignity and integrity in a population whom the editors acknowledged were more intelligent, and therefore perhaps more unruly, than the British. Folds returned to this plea in a later editorial entitled ‘The Prospects and Duty of Irishmen, in Reference to the Acquisition of Useful Knowledge’. This second article was apparently an answer and half-apology to readers who were offended by Folds’s seeming deprecation of classical learning, which he persisted in calling ‘a love of unmeaning verbiage’, and his elevation of science as an enjoyable and profitable subject.

Take Dublin, for instance, and we will venture fearlessly to assert, that nine-tenths of the young men who belong to the mechanical departments are ignorant of the simplest details of science. Ask any one of them to give you a rude idea of the working of the steam engine—of the nature of colours—of the refraction of light—of the laws which
Folds appealed to self-interest and to patriotism, to a desire to raise the scientific reputation of the country beyond its literary or other, less salubrious reputations, in the eyes of its neighbours. The articles on applied and pure science in the *DPJ* were therefore heavily weighted towards national subjects. For instance, a series of articles entitled ‘Gleanings of Natural History in Ireland’ began with a woodcut depicting an unknown bird. The editor asked readers to try to identify the bird and more generally to aid the process of classifying Ireland’s fauna. Another article in the series looked at nightingales; an extraordinary correspondence then ensued between several readers, and between readers and editors, all excitedly noting sightings of the bird in their different localities and inviting each other to visit in order to discuss the phenomenon.

Articles on applied science frequently dealt with agriculture and machinery. Folds called for the industrialization of Ireland and declared: ‘He who would oppose the converting of Ireland into a great manufacturing country, supposing it perfectly practicable, on the plea that it will deteriorate the morals of the people, obstructs the entrance of a substantial good because its shadow accompanies it.’ Whatever Folds might have thought, he did not explicitly suggest that it was in Britain’s imperial interest to keep Ireland tied to an agricultural base, rather than allowing it to compete in manufactures.

It is no accident that the *DPJ* appeared just when a profound shift occurred in the way scientists and antiquarians saw the past, with the move away from biblical and Classical frames of reference towards a methodology based on the examination of physical evidence. This was the new geographical tradition of inventory science—apparently able to negotiate class boundaries and political allegiances—the aim of which was to map and catalogue natural phenomena with a view to improving the economic and therefore the cultural outlook of the country. Quantification and statistical analysis—the scientific arm of utilitarianism—would be used to assess Ireland’s strengths and establish a new kind of nationality based on common interests rather than on a shared political or religious history. The ‘public pride, prestige, confidence resulting from scientific achievements’ would bridge ‘cultural and political divisions’. These are words used to describe what inventory science could do for the young dominion of Canada, trying to invent itself beneath the colonial umbrella, but they could easily apply to Ireland. Inventory science was chiefly used to reorganize and reinvestigate Ireland’s past, wrenching it from the clasp of myth and charges of savagery and placing it on a new, critical, documented footing. The work of the Ordnance Survey exemplifies this new direction. When the survey was set up in 1824, its brief was not only to produce a map of each county for the purpose of revaluation and taxation, but also to produce a physical way to investigate the ‘geology, natural history, ancient and modern records, antiquities, economic state and social condition of each and every barony, townland, and parish throughout the length and breadth of the land.’ The colonial impetus for the survey is clear, but it was also seen as having advantages arising from a very utilitarian desire to ‘map’ Ireland’s history as well as its physical geography. The ‘Preliminary Notice’ to the ‘Historical Memoir’ that was to accompany the maps asserted:

A perfect map, with a perfect memoir, should constitute the statistics of a country; such a combination has been attempted in the survey of Ireland, and though it is not to be assumed that perfection has been attained, no pains have been spared to fulfill the enlightened intentions of the legislature. Geogrophy is a noble and practical science only when associated with the history, the commerce, and a knowledge of the productions of a country; and the topographical delineation of a county would be comparatively useless without the information that may lead to, and suggest the proper development of its resources.

George Petrie became associated with the survey in the 1830s and was officially appointed head of the historical section of the topographical department in 1833. For at least a year Petrie managed to combine journalism and scientific enquiry in an attempt to widen and popularize investigation into Ireland’s national past. Petrie’s influence was most obvious in archaeology and the general study of antiquities. In the first volume of the *DPJ* there are at least twenty-seven articles on Irish archaeology, most of these by Petrie (signed with his initial) and accompanied by illustrations, also by him. The topics covered corresponded to the areas currently under investigation by the Ordnance Survey or to artefacts that Petrie had managed to acquire for the Royal Irish Academy. In this sense, then, the journal became a sort of Ordnance Survey/Royal Irish Academy newsletter, a way of publishing quickly and cheaply the results of the Irish inventory while at the same time reaching the widest possible audience. On several occasions Petrie engaged in intellectual battle with Sir William Betham, an established scholar but old-style antiquarian whose ignorance of the Irish language had already led him into some embarrassing mis-translations of inscriptions on ancient artefacts. It is clear that the *DPJ* regarded the Irish language as indispensable to an understanding of Ireland’s scientific and historical past. Earlier antiquarians had dismissed the language as barbaric, and their refusal to learn it, or to use native manuscript sources (or information from native Irish speakers) in their work led them, like Betham, to propose Phoenician or Etruscan origins for Ireland’s antiquities. They were consequently exposed to ridicule when supposedly Etruscan inscriptions were clearly shown to be in Irish. The Ordnance Survey, under Petrie’s guidance,
understood the importance of native sources, and one of its foremost researchers was John O’Donovan, translator of the *Annals of the Four Masters*, portions of which were published in the *DPJ*.

The continuing debate between Petrie and Betham exhibited in microcosm the paradigm shift between what Joep Leerssen calls ‘old-fashioned, entrenched, genteel muddle-headed amateurishness [...] and] newfangled, scientific, pedantic and intolerant factualism as championed by George Petrie’.21 Judging from the correspondence printed in the journal, and despite the grumblings of some, the scientific discussion surrounding the origins of Irish antiquities helped redefine the past as national rather than imported, real rather than surrounded in myth, and unaffected by sectarianism. Again, the location of this debate within the pages of a journal aimed at the common reader is testament to the relative freedom with which the acquisition of knowledge was pursued. Betham remained an enemy of Petrie, and of the popularization of science, and seems to have conducted a campaign against the historical section of the Ordnance Survey under Petrie. Petrie’s use of Catholic, Irish-speaking colleagues in the historical section (which met at his house) also angered others. In May 1842 the government received an anonymous letter, signed ‘a Protestant Conservative’, charging Petrie and his colleagues with being opponents of the government.22 This seems to be one of the inevitable results of the fear with which the Irish language and its associations with Catholicism and political radicalism were viewed in some quarters. In any event the historical section ran short of funds, exhausting the patience of the government in the process, and its work was halted long before the mapping project was complete. The *DPJ* under Petrie, then, embedded informative articles on both pure and applied science within a debate on the nature of science itself and its connections with myth and history; a debate in part about cultural nationalism and the status of the Irish past as Gaelic, home-grown, and of the peasants—the very readers the Anglo-Irish set out to ‘improve’.

The last issue under Petrie and Orway appeared on 27 July 1833. It is assumed that Petrie’s duties at the Ordnance Survey, particularly the writing up of his section’s archaeological findings, proved too onerous. In addition, however, the circulation was falling and the journal was proving a financial burden to its editors. Orway’s time, too, was otherwise engaged. January 1833 saw the publication of the first issue of the staunchly Protestant *Dublin University Magazine*, of which Orway was a founder and contributor. A monthly publication formed on the model of Blackwood’s, the *Dublin University Magazine* was aimed at an entirely different audience than that of the *Dublin Penny Journal*.

The last editor/proprietor of the *DPJ* was Philip Dixon Hardy (1793–1875). Stephen Brown notes that Hardy was an extraordinarily enterprising printer and publisher, with a fairly lengthy list of journals and monographs to his credit. He was politically and socially conservative, as evinced by his publication of *Ireland in 1846 Considered in Reference to the Rapid Growth of Popery and his Fondness for 'stage-Irishman' stories.*23 He was also a member of the Royal Irish Academy and the publisher of Betham’s works. In his ‘Preface to Readers’ Hardy stated his intention to run the enterprise on strict economic principles and to give readers ‘good value for their money’. He promised to promote discussion of industry and
technology, noting that the journal itself provided employment for artists and mechanics who would otherwise have had to emigrate, and justified the corresponding reduction of articles on archaeology and antiquities on the basis of appealing to a more ‘general’ readership. Hardy related the change of emphasis to the lack of support that the DPJ had received in Ireland, observing: ‘with all that has been done to bring forward the beauties and the antiquities of Ireland in the Dublin Penny Journal, and to render it a really creditable publication, it has not been supported as it should have been’. Indeed, other sources indicate that under Hardy it eventually sold more copies in England and Scotland than it did at home, though one would want to investigate more fully the reasons for this.

Accordingly, Hardy began a new series entitled ‘Simple Science’, largely concerned with the discussion of minerals found in Ireland and their technological uses. The steam press and machinery in general were described in terms of their supposed ability to make Ireland competitive with England and Scotland. The coal reserves in County Tyrone—enough to put English companies exporting to Ireland out of business—received a great deal of attention. Science, as opposed to technology, was ultimately reduced to health promotion: short articles, for example, on how to avoid consumption and how to treat cancer or heartburn. These articles were all unsigned, as were most under Hardy, whereas most articles under Petrie and Otway had been signed with full names or initials. Hardy also made extensive use of previously published material, something relatively rare under the DPJ’s first editors.

When Hardy included articles on Ireland’s antiquity, they took the form of travel narratives, as if Ireland were an unknown or vaguely remembered country and the writer a tourist speaking to a foreign or Irish emigrant audience. Altogether the journal under Hardy was a rather poor copy of the English Penny Magazine, except that it called repeatedly for the development of technology as a means of promoting Ireland’s prosperity. Hardy conducted the journal until 1836, when he announced that his other publishing enterprises were demanding too much time and that his health was suffering with the additional burden of the magazine. He claimed a circulation of about 11,000–12,000 copies per issue. The limited penetration of the journal into the wider periodical market is particularly striking when one compares circulation figures for the DPJ with those compiled for the English Penny Magazine. For the same period, the English SDUK could look forward to a print run of between 84,522 and 109,085 copies, with an average of 98 per cent of the print order sold.

It may be helpful to focus on two contrasting representations of Ireland offered by Petrie and Hardy. Figure 11.1 is the first page of the new journal in its second week of production. Emphasizing its national character, both the illustration and accompanying text are self-congratulatory. The emblems of Ireland: the Irish wolfhound, the harp, the oak, the shamrock, the crown, various battle implements, and not least the round tower to the right of the illustration, image a glorious past. Further, the text notes at considerable length that the origin of the round towers has only recently been discovered ‘by an accomplished antiquarian of our city’—Petrie, though the article doesn’t mention him by name—and that the results of his enquiry are shortly to be presented to the members of the Royal Irish Academy.
Thus, investigation into the past through the modern tools of utilitarian science are, the article suggests, providing further evidence of Ireland’s strength and importance as an independent repository of history and culture.

Figure 11.2 is the titlepage of the fourth volume of the *DPJ* under Hardy in 1836. The emblems of Ireland are again present: the oak supports the central outline map of the island; the harp, crown, sword, and spear are in evidence. They are scattered in disarray on the ground, however, half-obscured by the hopeful representation of the improvements the railways will bring to Ireland. A miniature train chugs towards the west in the background, and a diminutive lighthouse replaces Petrie’s round tower and symbolizes the watery boundaries of the country. Technology, then, supersedes history and nationalism; it all but obliterates the cultural evidence that points to Ireland’s difference and suggests through its overwhelming presence that the future (‘intended railways 1836’) lies in conformity. Hardy places his name both above and below this tableau, offering himself—alongside the publisher of the journal in London (Richard Groombridge)—as a frame through which the real Ireland can be glimpsed, like a highly coloured 1950s postcard of the ‘Emerald Isle’. Clearly, the author of The Northern Tourist and Pictures of Dublin envisions Ireland as a tourist destination.

Cultural nationalism is largely a product of the imagination, the way a nation sees itself both past and present. In this sense Petrie and O’Dwyer created within the pages of the *DPJ* a clearing-house, a cultural space in which a debate could exist about what materials constituted ‘Ireland’ and what language could be used to talk about those materials. It helped create an image of Ireland as culturally distinct, with its own history, science, and traditions—pects of nationhood that the Ordnance Survey recorded and tried to quantify. Hardy’s reorganization of the journal in 1833 reduced its distinctiveness, imaging an Ireland badly in need of technological modernization, with apparently nothing essentially interesting in its science except what could be used towards this end. Ireland thereby again became an English problem, a technological puzzle to be solved by the imperial machine. Of course, Petrie’s version of cultural nationalism was swept away by the famine—another catastrophe—and the process was begun again, but never with the openness made possible for Petrie by the new language of science and the dynamics of the periodical press.

**Notes**


4. *DPJ* 1 (1832–33), unpaginated preface.


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**Science, Industry, and Nationalism in the Dublin Penny Journal**


7. *DPJ* 1 (1832–33), 16.


11. *DPJ* 1 (1832–33), 323.


17. Stokes, 87.


19. The role played by the British Ordnance Survey in training Irish scientists is not to be underestimated. The great pity is that the scientists trained were utilized in ways that furthered the aims of the colonial authority rather than Ireland itself. See Roy Johnston, ‘Science and Technology in Irish National Culture’, *Crane Bag* 7 (1983), 58–63.

20. MacSweeney, 89.

21. Leerssen, 128.


