

THE WIPO JOURNAL:

ANALYSIS OF INTELLECTUAL PROPERTY ISSUES

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The Ecological Origins of Copyright Scepticism

Adrian Johns*

Allan Grant Maclear Professor, Department of History, University of Chicago

☞ Copyright; Economics and law; Legal history; United States

That intellectual property (IP) is an ecological topic ought to be obvious. After all, it is a structuring element of the modern creative world, and as such it cannot fail to participate in the ever-shifting relationship between society and nature. But for the most part this has not typically been apparent to commentators on IP issues. And if the situation has changed somewhat in recent years that is only because the domain of creativity has itself become overtly ecological. The debate over genetically modified organisms (GMOs) has inevitably drawn attention to the intellectual property regime within which they are deployed: fears about monocultures are rooted in patent law at least as much as in bioscience per se.¹ As a result, participants in this debate are now sometimes explicit about their positions at least having ecological consequences. That is all to the good. Yet there remain deeper questions about the ecology of intellectual property itself—about the very constitution of IP being in some way essentially ecological. I think it is time to ask them.

Or rather, I think that they have already been asked, and it is time to attend to the answers. For there was a period in the past in which ecological criticism was brought to bear, in particular on copyright, but also on patents. At the origin of what became an ideology of copyright scepticism, protagonists fought over the proper relationships between nature, economics and creativity, with the interaction of natural and social systems very much in mind. In the mid to late nineteenth century this range of reference ceased to characterise debates, for complex reasons. Some of those reasons will be explored here, but for the moment it is sufficient to note that it was at around the same time that *intellectual property* made its appearance as a standard concept.²

Scepticism about copyright, as about intellectual property in general, is an everyday reality in the late-modern world. It pervades our information culture, taking different but related forms in the realms of music, digital media, software, biotech and genomics, not to mention publishing—which is where it began. Some of its manifestations have been extremely passionate (think of protests in the developing world against pharmaceutical patenting or GMOs), some anarchic (Anonymous and Lulzsec) and some extremely consequential. For an example of that, we need look only to the sciences, where “open access” protocols have helped transform the communication and reward system on which our most reliable knowledge depends, or to the Internet itself, which depends on open-source code for its routine operations.³ For all that copyright is a major structuring element of the information age, scepticism about it is undeniably a force to be reckoned with too.

* Early versions of this article were presented at Oberlin College, The New School in New York and University College, London. I am grateful to the audiences there for important and perceptive criticisms, and to James Green at the Library Company of Philadelphia for facilitating my access to the Company’s copy of Henry Carey’s *Harmony of Nature*.

¹ The literature on this topic is large and contentious, but for brief accounts that show the separability of biotech from monoculture, see Alessandro Delfanti, *Biohackers: The Politics of Open Science* (London: Pluto, 2013) and Janet Hope, *Biobazaar: The Open Source Revolution and Biotechnology* (Cambridge, Mass.: Harvard University Press, 2008).

² Brad Sherman and Lionel Bently, *The Making of Modern Intellectual Property Law: The British Experience, 1760–1911* (Cambridge: Cambridge University Press, 1999).

³ Michael Nielsen, *Reinventing Discovery: The New Era of Networked Science* (Princeton: Princeton University Press, 2012), pp.187–207; Steve Weber, *The Success of Open Source* (Cambridge, Mass.: Harvard University Press, 2004), pp.224–272; John Willinsky, *The Access Principle: The Case for Open Access to Research and Scholarship* (Cambridge, Mass.: MIT Press, 2006).

Yet our understanding of where this scepticism came from, and hence of what it really means, is for the most part primitive. Critics view it as essentially derivative—as a set of responses to intellectual property, and in particular to intellectual property law. They do not see it as something with other constituent elements, distinct roots and its own history. In the last few years this has begun to change, as researchers have pointed to the influence of countercultural movements in the 1960s and to classical liberal beliefs inherited from John Stuart Mill. Christopher Kelty has made the sophisticated and suggestive observation that hackers themselves are fond of peddling stories of their affinities with past movements such as Reformation Protestantism.⁴ So there are signs that copyright scepticism may yet be recognised as the complex, historically-shaped and informed ideology that it is. But it remains the case that we have as yet very little comprehension of the different pathways that have brought it to its current position. Its origin and history are still neglected because the consensus is that they do not really matter. It is hard to think of another social movement of comparable consequence the history of which is regarded with such complacent ignorance.

Activists and copyright sceptics themselves represent only partial exceptions to this rule. Declarations of the positive economic, creative and moral virtues of openness, copying and sharing abound in writings by such figures as Cory Doctorow, Chris Kelty, Richard Stallman, Yochai Benkler and Kembrew Macleod, to mention a representative handful from relevant communities.⁵ But even here the assertions tend to be historically superficial. Moreover, when they do venture longer-term stories, they invariably adopt the terms, chronologies and analytical perspectives familiar from standard histories of copyright law, extending all the way back to the initial 1710 Statute of Anne. This is starkly ironic, because such histories, like all histories, are not neutral. They incorporate the conviction that progress, modernisation and even virtue have always aligned with the proponents of copyright: indeed, this is arguably what they were originally *meant* to do.⁶ The very groups who assert alternatives to ever-increasing copyright constraint therefore rely on a received history predicated on their own marginality.

I submit that we can and should do better. The questions of how copyright scepticism arose and of its change over time deserve our sustained attention because this scepticism is far more than a mere idea: it has become, over the generations, a fully-fledged corpus of principles, stances, values and practices. Knowing where an ideology like this came from and how it developed helps us understand what it really is, what motivates its adherents and where it may go next. To see that, however, we shall need to recognise the possibility of defining the bounds of our inquiry more broadly. Excavating the deep history of copyright scepticism requires us to accept the criteria of relevance that previous generations did. It will therefore mean moving beyond our accustomed terrain of legal doctrine, book-trade custom and economics. Indeed, in the case of economics it means questioning the historical salience of the discipline itself.

This matters particularly because of the moment when copyright scepticism appeared. While traces of scepticism can be found in the first days of copyright itself (and arguably even earlier), in our sense it coalesced only later, in the decades from the mid-eighteenth century to the mid-nineteenth. This was a period of imperial expansion and industrial growth. Print went through its own transition, in which steam-powered machines produced the first true mass medium, and the “publisher” came into existence as a stable, recognised profession.⁷ But above all it was a period of radical upheaval in all the intellectual

⁴ Adrian Johns, *Piracy: The Intellectual Property Wars from Gutenberg to Gates* (Chicago: University of Chicago Press, 2009), pp.463–491; Christopher M. Kelty, *Two Bits: The Cultural Significance of Free Software* (Durham: Duke University Press, 2008), pp.65–79; E. Gabriella Coleman, *Coding Freedom: The Ethics and Aesthetics of Hacking* (Princeton: Princeton University Press, 2013), pp.118–119.

⁵ Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom* (New Haven: Yale University Press, 2006); Kelty, *Two Bits* (2008); Kembrew Macleod, *Freedom of Expression: Overzealous Copyright Bozos and Other Enemies of Creativity* (New York: Doubleday, 2005); Richard M. Stallman, *Free Software, Free Society: Selected Essays* (Boston: Free Software Foundation, 2002). For Doctorow’s views, see his many contributions to *BoingBoing.net* [Accessed October 1, 2013].

⁶ See, for example, the explicit discussion in Eaton S. Drone, *A Treatise on the Law of Property in Intellectual Productions in Great Britain and the United States* (Boston: Little, Brown & Co, 1879), pp.67–68, which asserts that “the history of literary property . . . shows” that it existed for more than 200 years before the Act of Anne, and that this fact effectively disqualifies any argument that copyright is a monopoly.

⁷ E.g. Robert A. Gross and Mary Kelley (eds), *A History of the Book in America* (Chapel Hill: University of North Carolina Press, 2010), Vol.2.

disciplines.⁸ The formative years of copyright scepticism coincided with a time when the categories that western society used to sort out the world were in flux, to an extent that has never been matched before or since. Copyright scepticism was especially inflected by the eclipse of older pursuits known as *political economy* and *natural history* by the new enterprise of economics. This process involved a re-sorting of some fundamental categories: nature, society, work, energy, time and space.⁹ As a result, one strand of sceptical commitment was not concerned with property, as such, at all. And far from originating in principles of liberalism and *laissez-faire*—the cornerstones of modern libertarian “hackerdom”—it arose in radical opposition to those doctrines. Instead it engaged different but no less fundamental problems—problems of economy, ecology and empire. These themes had been conjoined in the older enterprise of natural history, but they tended to be formally disconnected in the new approaches associated with figures like David Ricardo and J.R McCulloch. Yet in practice economics could not, even in its liberal guise, shed them entirely. So how they related to each other was a question that came to preoccupy nineteenth-century experts. And the stakes for sceptics at this juncture were both different from and higher than what we now take them to be.

Reprinting as practice and principle

The starting point for this process, at least, is relatively familiar: the “system” (as contemporaries called it) of reprinting in nineteenth-century America. This system has been described too many times to warrant another detailed treatment here. Briefly, the new United States did adopt a copyright law, but it did not involve any commitment to copyrights observed in other countries. That was entirely conventional by the standards of the time. But the United States was unusual in what it wanted the printed book to do.¹⁰ A fast-growing republic proud of its literate population, it sought to develop its own industry and culture, if necessary by helping itself to the technologies and skills of Europeans. As Doron Ben-Atar has described at length, early national Americans invested extensively in the appropriation of European knowledge, men and machines.¹¹ Book publishing in particular had by the 1820s become an industry centred on the reprinting of books originally issued in London and other European cities. The “game”, as players called it, took on an extraordinarily febrile character, as publishers competed for the latest novels, histories, memoirs and travel literature. There was nothing illegal about it; the question was whether there *should* be something illegal. Out of that question came a movement to internationalise—and, at length, to universalise—copyright. But in the meantime, this practice of reprinting shaped what was published in the United States, how it was published, where it was published and how it was read.

Among the most respected players of this game—and in effect its rule-maker—was Henry C. Carey of Philadelphia. Carey’s business had been established before the Revolution by his father, Mathew, a radical Irish émigré who became not only the first major American publisher but also an important political and economic ideologue. His publishing house was by the 1810s one of the largest in the western hemisphere. When he inherited it, Henry perfected the strategies of reprinting, for example by employing the first permanent “agent” in London to actively search for new works. So when Britain mounted the first organised

⁸ Jon Klancher, *Transfiguring the Arts and Sciences: Knowledge and Cultural Institutions in the Romantic Age* (Cambridge: Cambridge University Press, forthcoming); Robin Valenza, *Literature, Language, and the Rise of the Intellectual Disciplines in Britain, 1680–1820* (Cambridge: Cambridge University Press, 2009), pp.10–20; Denise Phillips, *Acolytes of Nature: Defining Natural Science in Germany 1770–1850* (Chicago: University of Chicago Press, 2012).

⁹ See especially Dipesh Chakrabarty, “The Climate of History: Four Theses” (2009) 35 *Critical Inquiry* 197; Fredrik Albritton Jonsson, “Rival Ecologies of Global Commerce: Adam Smith and the Natural Historians” (2010) 115 *Am. Hist. Rev.* 1342; Matt Price, “Economics, Ecology, and the Value of Nature” in Lorraine Daston and Fernando Vidal (eds), *The Moral Authority of Nature* (Chicago: University of Chicago Press, 2004), pp.182–204. This new body of work moves decisively beyond the interesting but schematic assertions relating nature, society and modernity made by Bruno Latour and others—for example, in Latour’s *We Have Never Been Modern* (Cambridge, Mass.: Harvard University Press, 1993).

¹⁰ Trish Loughran, *The Republic in Print: Print Culture in the Age of U.S. Nation Building, 1770–1870* (New York: Columbia University Press, 2007), pp.21–29 and passim; Meredith L. McGill, *American Literature and the Culture of Reprinting 1834–1853* (Philadelphia: University of Pennsylvania Press, 2003), pp.85–87.

¹¹ Doron S Ben-Atar, *Trade Secrets: Intellectual Piracy and the Origins of American Industrial Power* (New Haven: Yale University Press, 2004).

resistance to reprinting in the late 1820s he stepped up to defend it. He became probably the most important Anglophone critic of copyright in the nineteenth century.

Championing a very strong principle of literary property indeed—stronger than anything in the United Kingdom itself—the British publishers denounced American publishers as “Literary Pirate[s]” who not only expropriated works but “dismembered” them.¹² They set up an office in New York, hoping to supplant these pirates. The tactic proved disastrous (the office quickly collapsed), but the moral strategy endured. Charles Dickens and others pressed home the charge repeatedly. For decades, British claims of moral justice confronted American counterclaims of democratic accessibility. Each side framed the issue as a struggle for the very soul of the republic. Henry Carey’s contribution was a strikingly radical argument against universal literary property. His position was complex, however, because it arose in conjunction with a much grander intellectual project. Carey christened this project “societary science.”¹³

Societary science was one of a number of ambitious, totalising visions promoted by intellectuals of the mid-nineteenth century such as Auguste Comte, Herbert Spencer and Karl Marx. It was by far the most influential of them to be produced within the United States. And it was built substantially out of reprints—especially of Comte, copies of whose positivist writings Carey circulated to friends along with his own anti-copyright tracts.¹⁴ Carey agitated ceaselessly in its name for about 40 years, during which he became the foremost American political economist of the age, and a major figure in the early Republican Party. He authored several hefty volumes of societary science itself, plus an unending torrent of letters, tracts, pamphlets and editorials applying its principles to every topic of the day. Copyright was just one of them.

Like Comte—although Carey grew increasingly leery of the comparison—Carey meant to build a unified science based on a hierarchy of natural laws. Briefly, it began with the individual human, “the molecule of society”. This molecule had, he believed, a natural need for “association” with others. By a “great law of molecular gravitation”, humans attracted each other, forming first villages, then cities. This law was “the *indispensable* condition of the existence of man”. These systems did not implode, partly because the attraction of one centre was counterbalanced by that of another (Philadelphia versus New York, for example). But another reason was that attraction was counterbalanced by a principle that Carey dubbed “societary circulation”. A rather slippery entity called “societary force” apparently pursued an endless rotation through any given society, and the faster the better. This force was akin to all the other forces that commanded scientists’ attention at this time: magnetism, electricity and so on. The “correlation”, “conversion” or “conservation” of these agencies was the topic of the day for Michael Faraday and his peers, and like them Carey insisted that the implications of his “force” and “circulation” shaped social forms. Societary science was therefore the discipline devoted to analysing societary force in all its movements and transformations.¹⁵

Carey thought of societary force primarily as analogous to electricity. (Occasionally, but suggestively, he also spoke in terms of that equally mysterious circulating entity, capital.) Electrical circuits became his archetype for societary circulation. Citizens, he announced, played roles as terminals in a battery. As “giver and receiver, teacher and learner, producer and consumer”, everyone could be considered “positive and negative”. When they were properly arrayed, societary force would flow, producing power. A modern, free society thus depended on local diversity. Without distinctions of roles, there could be no “positives and negatives” to create social batteries, and hence no power generated. So Carey spoke admiringly of what he called the “conductors” in any community: the makers of cloth, iron, instruments, ships, houses, mills, furnaces—and books. On the other hand, he despised institutions that acted at a distance, particularly

¹² American, *A Plea for Authors, and the Rights of Literary Property* (New York: Adlard and Saunders, 1838), pp.4–7.

¹³ For details, see Johns, *Piracy* (2009), pp.309–325.

¹⁴ Johns, *Piracy* (2009), p.312.

¹⁵ Henry Charles Carey, *The Unity of Law: As Exhibited in the Relations of Physical, Social, Mental, and Moral Science* (Philadelphia: Henry Carey Baird, 1872), pp.79–84, 111–114 (italics in original).

the merchants and traders he accounted “middlemen”. These he described as insulators: they obstructed flow by eliminating distinctions between neighbours. Much of Carey’s occasional writing was devoted to attacks on middlemen. He blamed them for the worst problems of the period, up to and including the American Civil War.¹⁶

Carey’s claim was thus that civilisation itself depended on the maintenance of diverse, local and decentralised sets of circulations. Government policy must be directed to producing the most effective diversity of citizens’ roles. With good policies in place, he declared, “economic force” would “flow ... smoothly ..., happiness and prosperity, [and] improved mental and moral action, following in its train”. Politics was the art of making circuits. The German *Zollverein* was a favourite example. So was the Union under Lincoln, in which “almost perfect circulation [had] been established throughout a gigantic battery of 20,000,000 pairs of plates”. By contrast, the British Empire always represented for Carey the antithesis of civilisation. Here one found the stultifying effects of middlemen in their purest form. The free-trade empire elevated the interests of commerce above those of locality, and of homogenised class above diversity. Britain’s “machines” of the industrial revolution were all devices for acting at a distance and reducing local diversity: ships, railways and telegraphs. With positive and negative plates kept far apart, free trade imperialism prevented circulation and therefore forestalled “any development whatsoever of mental force”. The result was slavery and stagnation. The great Irish and Indian famines were entirely symptomatic outcomes.¹⁷

The relevant point here is that Carey thought that the wiring of his great societal battery was made out of printed paper. The faster print moved, the more society progressed. Copyright, accordingly, was one of the worst insulators of all—it prevented circulation and therefore progress. Inhibit printers, he declared, and circulation in any society would cease—which was exactly what had happened in Ireland after British copyright was introduced there in 1800. When Dublin reprinting ceased, the country became a land of “slavery, depopulation, and death”. London had never again permitted “Irish positives and negatives to come together in such order as was required for production of any societal force whatsoever”. It was no surprise, then, that “half a century of international copy-right has almost annihilated both the producers and the consumers of books”. The potato famine was on this account a direct consequence not only of British commercial policy, but of copyright in particular. Indeed, Carey believed that the contemporary book trades reinforced the point. The great publishers of the 1830s–1850s, he insisted, were the equivalent of steamship or railroad magnates, and had the same imperial tendencies. A printer who worked for such a copyright publisher experienced, he said, “the nearest approach to serfdom that I know to exist in civilized life”. “Transporters and publishers are alike middlemen”: the only thing restraining either was “a salutary fear of interlopers”. “Precisely so is it with nations”, Carey concluded: a colony’s predicament was “that of the printers”. Printers were to publishers as India was to Britain.¹⁸

Hence the vehemence with which Carey upheld the American reprinting system. “Our present copy-right system looks to the decentralization of literature”, he declared, enhancing “the whole mind of the country”. The epistemology of reprinting that would loom large in digital-era defences of copying—that is, in his terms, the notion that “positive knowledge” rested in facts and as such was “the common property of all”—was here a second-order point, subordinate to his broader argument. Besides, those pressing for “the interests of science” in Britain’s international copyright campaign, he pointed out (and here he had a point), were in truth “literary” figures rather than actual scientists. They were middlemen *par excellence*.¹⁹

¹⁶ Henry Charles Carey, *Review of the Decade 1857–1867* (Philadelphia: Collins, 1867), p.5; Carey, *The Unity of Law* (1872), pp.v–xi.

¹⁷ Henry Charles Carey, *Principles of Social Science* (Philadelphia: J.B. Lippincott & Co, 1858), Vol.II, p.175; Carey, *The Unity of Law* (1872), pp.190–191, 206, 219–223.

¹⁸ Johns, *Piracy* (2009), pp.320–335; Henry Charles Carey, *The Resources of the Union* (Philadelphia: Henry Carey Baird, 1866), p.24; Henry Charles Carey, *The Way to Outdo England without Fighting Her: Letters to the Hon. Schuyler Colfax* (Philadelphia: Henry Carey Baird, 1865), p.31.

¹⁹ Henry Charles Carey, *Letters on International Copyright* (Philadelphia: A. Hart, 1853), pp.10–25.

The natural law of information

The pioneer of a systematic practice of reprinting thus developed an ambitious defence of that practice in terms of a radical and sweeping critique of contemporary political-economic orthodoxy. It was certainly not based on classical liberal economics or opposition to protectionism. Fundamentally, anti-copyright had to do here with localisation and decentralisation—the politics and economics of space itself. And the struggle became, for Carey, the pivot point in an epochal clash between “centralization and civilization”.

But there is a major puzzle here. In fact, Carey had not always been a radical of this kind. During his time as a practicing reprinter he was a notable and adamant *advocate* of laissez-faire and free trade, denouncing his own father as one of the architects of American protectionism. So what motivated him to abandon this orthodoxy at the same time as he ceased the practice of reprinting, and in their place to create such an extravagant and, to our eyes at least, quixotically counterintuitive ideology?

The key to an answer lies in Carey’s own formative experience as an author. He began his writing career at a moment of change both personal and professional. His firm was leaving the frenzy of reprinting behind, to focus instead on science and medicine. As it did so, he decided to retire and write a book. The book he had in mind would confirm and prove the triumph of Adam Smith’s intellectual legacy. He gave it the evocative title *The Harmony of Nature*. But having completed and even printed the book, Carey experienced a dramatic change of heart. He suddenly called it in and destroyed the whole impression. This was the moment when he became a radical enemy to much of the Smithian orthodoxy of political economy. Both he and his friends repeatedly referred to it in quasi-religious terms, as his epiphany. Apparently Carey had realised all at once that laissez-faire was a mere tool of British imperialism, exploitation and tyranny. But all one could do was take their word for it. The book itself did not exist to tell us any more. Or did it?

It has always been clear that some copies of *The Harmony of Nature* survived Carey’s bibliocide. Quotations have surfaced here and there in obscure studies—and some not so obscure: references in *Das Kapital* imply that Marx had read it.²⁰ It turns out that it has been hidden in plain sight for about 150 years. One copy sits ignored in Johns Hopkins University.²¹ And recently another has shown up at the Library Company of Philadelphia, complete with contemporary annotations by a critical friend of Carey’s.²² As a result, we can now see far more clearly what was going on at this pivotal moment in the creation of an anti-copyright ideology. At the heart of the matter was the relation between the powers of nature and society in the creation of wealth and progress.

After Adam Smith, conventional political economists ultimately referred to the fecundity of nature—to soil fertility in particular—as the source of all prosperity.²³ Exemplary in this respect was the work that more than any other defined the dismal science: David Ricardo’s *Principles of Political Economy* (1817). Beginning with the powers of the soil, Ricardo undertook to deduce “iron” laws governing the division of wealth between classes of labourers, landowners and capitalists. He had little time for the natural historians, however, whose expertise had been highly valued by the cameralist governments of the Enlightenment. Ricardo disdained their fine ecological distinctions between landscapes and their calls to manage climate, flora and fauna. For him, the key point was simply that land was inherently productive. Moreover, it combined natural creative power with the property of being enclosable. Unlike air and water, it could therefore be rendered into property, and as a result its “original and indestructible powers” commanded rent. But the other key fact about soil was that it was not uniform: some soils were more productive than others. As populations grew, Ricardo assumed that they must expand from better soils to worse. Rent therefore increased just as food productivity declined. This must produce Malthusian pressures,

²⁰ Karl Marx, *Capital: Volume I* (London: Penguin, 1990), pp.705–706.

²¹ JHU classmark HB161.C23 1836.

²² Library Company of Philadelphia, classmark Carey 91577.D.

²³ Fredrik Albritton Jonsson, *Enlightenment’s Frontier: The Scottish Highlands and the Origins of Environmentalism* (New Haven: Yale University Press, 2013), pp.130–134.

but Ricardo was actually sanguine about their effects: he believed that human ingenuity responded to such pressures, making for progress. Yet it also meant that wealth was in the end a zero-sum game, with the classes in perpetual and inescapable competition for finite resources. The upshot was that classic nineteenth-century combination of laissez-faire and workhouse.²⁴

Ricardo's political economy thus made the powers of the soil into the ultimate explanation for progress and disaster alike. But this was a theoretical axiom, meant to hold true always and everywhere: Ricardo did not see the detailed empirical analysis of particular ecologies as pertinent, although natural historians insisted it was essential. *The Harmony of Nature* went even further, and denied the salience of soil quality altogether. Carey's book was distinctive in not appealing at all to the powers of different soils. In that sense it was an early effort towards the "denaturalization" of political economy, to use Margaret Schabas's term.²⁵ But there was more to it than that. Carey agreed with Ricardo that nature had laws, that they were universal and that they were inexorable in their operation. It was just that humanity's resort to poorer soils over time was not one of them. Carey denounced this central axiom—that progress involved moving to inferior soils—as simply untrue. Soils' powers were in practice too easily alterable by chemicals and machines for the formula to hold good. (He travelled across the Atlantic partly to pay homage to Justus Von Liebig, the apostle of chemical agriculture, whose science, he believed, refuted Ricardo.) And in any case, any differences resulting from soil quality were swamped by the effects of sheer distance. "I say nothing of the *fitness of the soil*", he declared, "because I wish to show why New England, with a barren soil, is more prosperous than Jamaica, with a fertile one". However attractive it might sound, Ricardo's axiom was disproved by the facts—a point that Carey came to see as entirely representative of the methodological problems of British political economy.

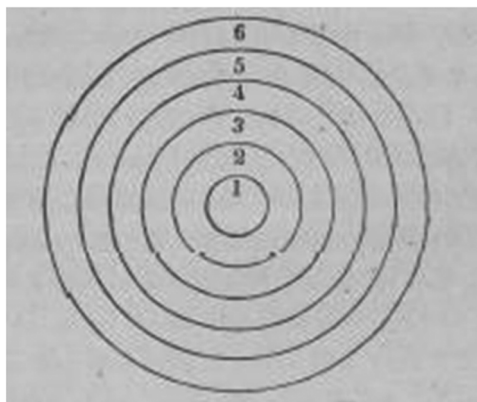


Figure 1: Diagram showing the relative importance of communication and soil quality. H.C. Carey, *The Harmony of Nature* (Philadelphia: Carey, Lea, and Blanchard, 1836), p.16.

To introduce his alternative, Carey indulged in a thought experiment. Posit land of uniform soil quality surrounding a central settlement. The population increases to occupy all the land. Then a trader arrives at the settlement with goods. This amounts to an increase in the ratio of capital to population. Settlers closest to the centre, at (1), begin to buy his goods, exchanging for them the food they have grown. As they do so, they save labour and are therefore able to start accruing capital. Zones (2) to (5) steadily do the same, but the trader charges more as the distance increases, because it is expensive to move goods away from the centre. So (1) accrues more than (2) and so on. This produces a real difference in value between the

²⁴ David Ricardo, *On the Principles of Political Economy, and Taxation*, 3rd edn (London: J. Murray, 1821), p.53; Donald Winch, *Riches and Poverty: An Intellectual History of Political Economy in Britain, 1750–1834* (Cambridge: Cambridge University Press, 1996), e.g. pp.349–350.

²⁵ Margaret Schabas, *The Natural Origins of Economics* (Chicago: University of Chicago Press, 2005), pp.2–21.

zones: rent arises because of that. Divisions of labour thus appear in the centre first, giving rise to a bank and a “market-house”, which becomes “the centre of attraction”. Meanwhile zone (1) can now afford machines to improve the soil’s production and roads to cheapen transport. The beneficial influence is therefore intensified. The effect of the new capital, Carey says, “is felt like that of heat”:

“The two are governed by the same laws. When no obstacle is interposed, they diffuse themselves equally in all directions, decreasing in intensity with the increased distance from the centre.”

In short, it looks like fig.2.²⁶

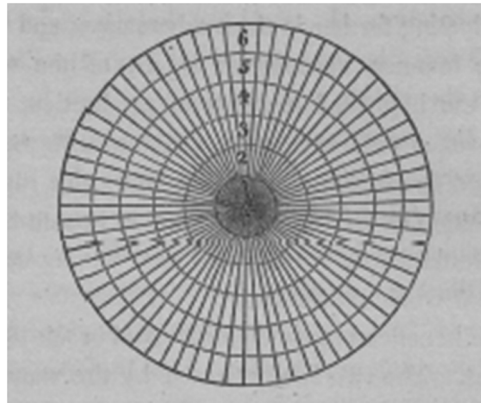


Figure 2: Diagram showing the radial effects of communication. Carey, *Harmony of Nature*, p.20.

So rent does not come from any difference in the natural powers of soils, but from an increase in capital relative to population (“capital” here included roads, manure or threshers—all of which Carey counted as machines). This is confirmed if one imagines a trader now arriving at zone (6), previously the poorest region: now zones (1)–(5) have to go to (6) to make their exchanges. “The tables are turned completely, solely because of the change in the ratio of capital.” The same argument would work for mines, fisheries and even shipping, Carey adds. And in a striking conclusion, he ends by saying that it applies to words too:

“An author receives a large or small rent for his copyrights, according to the amount to be employed and the rate of profit. *In all these cases, rent is paid for the use of capital; it has a tendency to increase with any increase in the ratio which that bears to population.*”²⁷

This, according to Carey, was the *real* law of nature.

The implication was immediate and profound. Ricardo’s class war did not exist. On the contrary, nature decreed that there was no true difference of interests between “the sovereign and the subject; the landlord and the tenant; the capitalist and the workman; [and even] the planter and the slave”.²⁸ Policies devised on the assumption of a fundamental conflict were therefore not only mistaken, but contrary to nature itself. And that made them actively disastrous, because nature was above all a recursive, cycling system, primed to correct imbalances in its own drastic ways. “It might have occurred to them”, Carey remarked of Britain’s rulers:

²⁶ Henry Charles Carey, *The Harmony of Nature: As Exhibited in the Laws Which Regulate the Increase of Population, and of the Means of Subsistence* (Philadelphia: Carey, Lea, and Blanchard, 1836), pp.15–34, 42.

²⁷ Carey, *The Harmony of Nature* (1836), p.58 (italics in original).

²⁸ Carey, *The Harmony of Nature* (1836), title page, pp.299–310. Carey’s comments in *Harmony of Nature* on slavery were gradualist to a fault; he would later become a much more resolute antagonist to the slave states. There is much to be said on how property in persons and property in ideas interacted in the antebellum United States, but it is a complex topic best left for another paper. In the meantime, see Stephen Michael Best, *The Fugitive’s Properties: Law and the Poetics of Possession* (Chicago: University of Chicago Press, 2004).

“that the same great power that devised the laws which govern our planetary system, also devised those under which man is produced; that the same power implanted in him the passions which tend to cause his reproduction. . . . They might have seen, that although, in the system of the universe, there are slight perturbations constantly occurring, there is also established a system of compensations productive of the most perfect harmony, and doing so, they might well have doubted the correctness of their doctrine, and supposed the *apparent* discord to be ‘harmony not understood’”.²⁹

The notion of a natural balance sustained by feedback processes marked this out as what Ernst Haeckel in Germany would soon define for the first time as an “ecology”.³⁰

In effect, then, Carey believed that capital was ecological. He even attributed to it the natural power of reproduction. Prosperity simply depended on its reproducing faster than the population. By nature, fortunately, capital did indeed tend to outpace children—but only as long as trade were not constricted. “The laws under which man exists are sufficient”, he insisted, “if man could be persuaded to let nature alone”.³¹ Freedom of communication was the key. This meant two things: access to market centres, whether by proximity or via canals, roads and railroads; and flows of “information”. Information fed knowledge, and knowledge led to better machines, which were a focused form of capital. Progress rested not on Malthusian pressures, but on the speed and ease of information transfer. This explained why the United States was rising so much faster than Britain: with an unconfined print trade circulating knowledge, “men work every sort of machine, and select those which are most likely to be productive”. By stark contrast, in Ireland poor knowledge, ensured by a constricted print industry, had led to catastrophe. The same was imminent for India, and at length must befall even France.³²

The Harmony of Nature represented America as the closest thing to a natural polity that the world then possessed. That was why the United States had the fastest growing population, industry and exports of any nation. *Contra* Ricardo, inferior land there commanded higher rents than superior, because of proximity to New York or Philadelphia. *Contra* Malthus, too, increasing population there led to greater wellbeing, with progress in sciences, morals and arts. America’s frenetic circulation of information was at the heart of this success, and as it continued so it constantly redoubled the advantage. Pennsylvania alone offered “the most extraordinary spectacle, in regard to artificial communications, that can be found in the world”. Before long, “the United States will furnish, throughout their immense territory, a facility of intercommunication such as will be without parallel”. Even human nature itself was changing, thanks to this law of nature. With improvements, Carey thought, every citizen’s “mind begins to expand”, producing a new “habit of thoughtfulness”.³³

The Harmony of Nature thus contended that the true “system of nature” was laissez-faire, but on very different grounds from Ricardo’s. Only this policy allowed a people to progress, because only it permitted them to enjoy “the advantages arising out of the dissemination of information”. But with it in place, according to Carey, “the same harmony exists on earth, when the laws are properly understood, as has been ascertained to exist among the heavenly bodies”. “Such”, he concluded (decades before Lincoln), “are the results of government *of* the people *by* the people”.³⁴

This, then, was the doctrine that Carey suddenly repudiated, apparently with all the ferocity of a convert. It turns out that his epiphany originated where the doctrine itself had: in the powers of nature. He had already convinced himself that Ricardo’s argument about soils was a false axiom. Now he decided that

²⁹ Carey, *The Harmony of Nature* (1836), p.4, restated verbatim in Henry Charles Carey, *Principles of Political Economy* (Philadelphia: Blanchard and Lea, 1840), Vol.I, p.89. The last quotation comes from Pope’s *Essay on Man*, in the passage culminating with the famous remark that “Whatever is, is right”; it captured Carey’s intent solidly enough that he used it as the epigram on his title page.

³⁰ Robert J. Richards, *The Tragic Sense of Life: Ernst Haeckel and the Struggle over Evolutionary Thought* (Chicago: University of Chicago Press, 2008), p.144.

³¹ Carey, *The Harmony of Nature* (1836), pp.6–7.

³² Carey, *The Harmony of Nature* (1836), pp.191–194, 291–292, 358–361.

³³ Carey, *The Harmony of Nature* (1836), pp.360–369.

³⁴ Carey, *The Harmony of Nature* (1836), p.363.

its falsity tainted everything it touched. It was the principle behind free-trade, for example; so free trade had to go, along with the British Empire that revered it. The immiseration, exploitation and corruption of empire were not effects of poor policy decisions. They *were* the Ricardian system, applied as an ecology and on a global scale. In a string of diatribes, Carey now tackled “this atrocious theory”, as one eulogist put it, with “a demonstration of its falsity that has scarcely a parallel in the history of science”.³⁵ Corraling massive amounts of empirical data from countries across the world, he asserted that real societies always began by cultivating uplands with thin soil, and only moved on to richer, lower country as wealth and technology permitted. After all, this made sense: their natural fertility would make rich lands hard to farm with primitive machinery. History thus showed a common thread of progress from less production to more: from poorer to more sophisticated roads, from simpler to more complex commerce, from primitive to more powerful machines. It was this anti-imperial ecology that Carey went on to develop into his extravagant societal science. And it was to preserve it that he entered the lists against copyright.³⁶

Yet the major reason for that lies in the two convictions that Carey did *not* jettison from *The Harmony of Nature*. First, he remained convinced that true political economy was indeed ecological, and that nature was characterised by self-correcting circulations. Society consequently exhibited not a class war but a harmony of interests, and one grounded in an escapable natural order. And, secondly, progress and prosperity depended on maximising the circulation of information. The origins of anti-copyright ideology lay in those pivotal convictions and in the historical moment that produced them—the moment of nation-building, international reprinting and the splitting of political economy into ecology and economics. In the end, it was not the putative “denaturalizing” of economics that mattered, but its abandonment of spatial ecology.

In that light, Carey’s model of ecological progress was cutting-edge by the standards of its time. As economic expertise increasingly disengaged from natural history—a process as distinctive of the transition to modernity as anything in the sciences—so some practitioners sought to incorporate a spatial component instead.³⁷ Carey’s model offered perhaps the most sophisticated early attempt to do this. In particular, it compares well to what is traditionally identified as the original theory of this kind: that of the German landowner Johann Heinrich Von Thünen, whose *The Isolated State* appeared in 1826. Von Thünen, like Carey, assumed uniform soil fertility and suggested a model of concentric rings. But his rings were crudely assigned to different kinds of agriculture, and his ideal state was, as his title put it, “isolated”. Trade played no part, and the model itself was therefore silent on perhaps the most fiercely contested economic issue of the century. That could certainly not be said of Carey’s. Yet Carey’s model disappeared completely from view with his destruction of *The Harmony of Nature*, whereas Von Thünen’s at least retained a certain niche notoriety. Much later, with the return of environmental perspectives in the social sciences, it would be Von Thünen’s scheme that reappeared, in works like William Cronon’s renowned *Nature’s Metropolis*.³⁸

Meanwhile, however, in 1937 the young Ronald Coase’s famous paper on the nature of the firm turned on a similar diagram. Although Coase avowedly based it on Von Thünen, his version—which focused on industries rather than agriculture, and on information flows rather than production—was much closer in spirit to Carey.³⁹ And this is intriguing for two reasons. One is that Coase’s argument would go on to play a pivotal role in the reappraisal of intellectual property orthodoxies in the age of the internet.⁴⁰ The other is that Coase had at that point been a research assistant to Arnold Plant, who would be the single most

³⁵ William Elder, *A Memoir of Henry C. Carey* (Philadelphia: Henry Carey Baird, 1880), p.15.

³⁶ For the intricacies of Carey’s campaign against international copyright, see Johns, *Piracy* (2009), pp.291–326. The principal primary sources are Carey, *Letters on International Copyright* (1853); Henry Charles Carey, *Letters on International Copyright*, 2nd edn (New York: Hurd and Houghton, 1868); and Henry Charles Carey, *The International Copyright Question Considered* (Philadelphia: Henry Carey Baird, 1872).

³⁷ Claude Ponsard, *History of Spatial Economic Theory* (Berlin: Springer, 1983), pp.13–21.

³⁸ William Cronon, *Nature’s Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991), pp.48–52.

³⁹ R.H. Coase, “The Nature of the Firm” (1937) 4 *Economica* 386, especially 402–403.

⁴⁰ Yochai Benkler, “Coases’s Penguin, Or, Linux and The Nature of the Firm” (2002) 112 *Yale L.J.* 369.

important author of a neo-classical critique of intellectual property in that generation, and the only economist to introduce his analysis of IP with a reappraisal of Henry Carey.⁴¹ Taken together, these observations suggest that the ecological critique of copyright may in the end prove to have greater resilience than has been recognised.

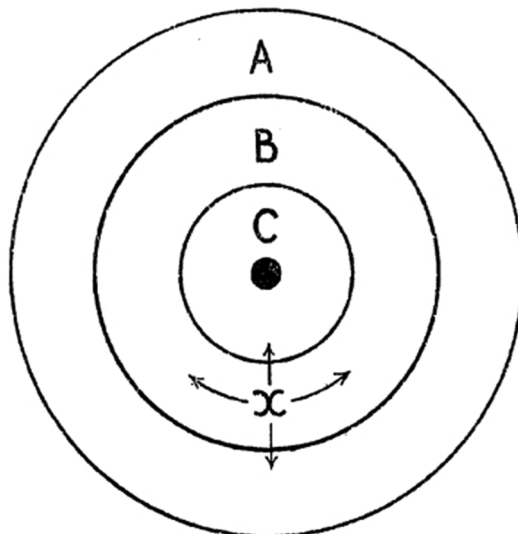


Figure 3. Coase's diagram explaining the role of transaction costs in the formation of firms. R. Coase, "The Nature of the Firm" (1937), p.402.

Certainly, a wide-ranging international debate on intellectual property took place in the second half of the nineteenth century, centring precisely on Carey's nexus of nature, economy and empire. I have only scratched its surface here, and in only one place: it took many forms, and all deserve our attention. But with the consolidation of IP as the guiding concept of an emerging information economy, the earlier debate was forgotten. Or rather, it was very selectively remembered. Campaigners in Roosevelt's America returned to Carey to question the new dominance of AT&T in telecommunications, and in the UK Plant did the same to mount his own attacks on copyright and patents. But those were partial and opportunistic recoveries. The explicitly ecological character of the initial critique was largely lost as the argument now took place on the terrain of modern, "denatured" economics. If we can take notice of it again, that may be partly because the relationship between the natural and the social for so long accepted in economic logics is once more looking artificial, and at a time when the consequences of the conventional separation are coming home to roost. We live in a moment when conversations about intellectual property could and should take a different tack, if not quite an unprecedented one.

⁴¹ Johns, *Piracy* (2009), pp.414–416; Adrian Johns, *Death of a Pirate: British Radio and the Making of the Information Age* (New York: W.W. Norton, 2010), pp.74–78, 96–102.