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# Time Machines: Technology, Temporality, and the Victorian Social Imaginary

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## Abstract

Drawing on the conceptual framework developed by Charles Taylor in his *A Secular Age* (2007), this thesis seeks to recast the question of Victorian ‘secularization’ – a notion largely abandoned by historians. It does so by analysing the temporal dimension of three Victorian social imaginaries and their technological performance: railways and the establishment of a uniform national time; newspapers and the public sphere; and Bank of England paper notes and the integration of a national economy. It argues that in all three cases, a concept of secular time was actively invested and embedded on the level of the social imaginary and its material mediation. This allows historians again to speak of a process of secularization, albeit only on this particular level. However—and contrary to Taylor—the thesis argues that the temporal structure of Victorian modernity comprised *two* kinds of time at this very level, articulated together in a dialectic fashion: a secular time conceived as isochronic, abstract, and independent of motion; and a historical time conceived as pure qualitative duration. In this way, the thesis contributes towards the development of a genuinely postsecular paradigm for future research into the nature of Victorian modernity.

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# PART 1

# 1. INTRODUCTION

## Secularization, temporality and material networks

‘We find metaphysics in machines, and machines in metaphysics.’

- Peter Galison, *Einstein's Clocks, Poincaré's Maps*<sup>1</sup>

Big and complex ideas may be found in small and simple things. Equally, big and complex networks of things may be required to uphold apparently simple and obvious ideas. This thesis is concerned with complex—and indeed metaphysical—conceptions of time embedded in technological networks and widespread collective practices in Victorian England, in particular those associated with railways and timetables, daily newspapers, and Bank of England paper notes. It seeks to examine how assumptions about the nature of temporality, while often not articulated explicitly, were carried in and mediated through these material networks, and how big and complex ideas thus came to be taken for granted without needing conscious endorsement from participating individuals. Similarly, the thesis is concerned with how what gradually became obvious and ‘given’ conceptions of time required active construction and constant maintenance. Travelling effortlessly by train; engaging with current events through newspapers; and accepting the authenticity of bank notes – these were practices whose apparent simplicity belied the extent of work needed for making them so simple.

In so doing, the thesis seeks to address two current historiographies. The first concerns the question of Victorian ‘secularization,’ an idea now largely abandoned by historians (if not by sociologists).<sup>2</sup> The second concerns the question of how ‘the

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<sup>1</sup> Peter Galison, *Einstein's Clocks, Poincaré's Maps: Empires of Time* (New York and London: W.W. Norton & Company, 2003), 328.

<sup>2</sup> The historiographical literature will be reviewed below. An overview can be found in Jeremy Morris, “Secularization and Religious Experience: Arguments in the Historiography of Modern British Religion,” *The Historical Journal* 55, no. 01 (2012): 195–219. For current sociological discussions on the meaning(s)—rather than dismissal of—secularization, see e.g. Craig J. Calhoun, Mark Juergensmeyer, and Jonathan VanAntwerpen, eds., *Rethinking Secularism* (Oxford: Oxford University Press, 2011).



social' is actively constituted by and through material networks of technological and embodied performance. It seeks to speak to—and indeed connect—these two historiographies via the conceptual framework developed by philosopher Charles Taylor in his recent work *A Secular Age*, in particular his concept of the *social imaginary* and his definition of 'secularity' as a specific conception of time.<sup>3</sup> As will be elaborated below, Taylor's thesis challenges and advances both historiographies, whilst these in turn complicate and challenge Taylor's thesis, empirically and conceptually. For historians of secularization, Taylor's work provides a new conceptual lens through which to pose the question of secularization in Victorian England; for historians following the 'material turn,' it directs attention to how everyday practices are underpinned by temporal schemas that lend them legitimacy and rationality, thus providing a means of moving beyond the problematic of governmentality and power. However, while Taylor's work helps to illuminate new areas for both historiographies, the exchanges developed in this thesis also generate a fundamental challenge to his central claim that the temporal structure of modernity is essentially and exclusively secular. In this respect, this thesis aligns itself with the general 'postsecular' disposition of the current historiography of secularization.

### *Postsecular histories of secularization*

The existing historiography of secularization in England is rich, nuanced, and intensely sophisticated, in its empirical as well as its conceptual aspects. In the last decades it has, we might say, become predominantly 'postsecular,' in the sense that its main concern has been to revise and challenge the traditional secularization thesis it initially endorsed.<sup>4</sup> Overall, it gives an impression not so much of a decline in

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<sup>3</sup> Charles Taylor, *A Secular Age* (Cambridge, MA.; London: Belknap Press of Harvard University, 2007).

<sup>4</sup> The term 'postsecular' remains contested. At present, it primarily registers a general dissatisfaction with the so-called traditional secularization thesis – the assumption (implicit or explicit) that religion progressively declines as an inevitable effect of the processes associated with modernization. In English scholarship, the most consistent proponent of the traditional theory remains sociologist Steve Bruce. Steve Bruce, *Religion and Modernization: Sociologists and Historians Debate the Secularization Thesis* (Oxford: Clarendon Press, 1992); Steve Bruce, *Religion in Modern Britain*, ed. John Scott, Oxford Modern Britain (Oxford: Oxford University Press, 1995); Steve Bruce, *God Is Dead: Secularization in the West* (Oxford: Wiley-Blackwell, 2002). In the late 1990s, Rodney Stark raised a famous critique of the traditional thesis, arguing that its predictions had failed in light of contemporary empirical evidence. Rodney Stark, "Secularisation, R.I.P.," *Sociology of Religion* 60, no. 3 (1999): 249–273. For some, the term 'postsecularity' has largely denoted either the 'return' of religion as a force in the public sphere from where the traditional secularization thesis postulated its irreversible elimination, or an acknowledgement that there has always been a 'residual spirituality' in the internal critiques of modernity. See e.g. Richard T. Aunton and Mary Elaine Hegland, *Religious Resurgence: Contemporary Cases in Islam, Christianity and Judaism* (New York: Syracuse University Press, 1987); Jürgen Habermas, *An Awareness of What Is Missing: Faith and Reason in a Post-Secular Age* (Cambridge et al.: Polity, 2010); Rosi Braidotti, "In Spite of the Times: The Postsecular Turn in Feminism," *Theory, Culture & Society* 25, no. 6 (2008): 1–24; Eduardo Mendieta and Jonathan VanAntwerpen, eds., *The Power of Religion in the Public Sphere* (New York: Columbia University

British religion *per se*, as an abundance of adaptations, renewals, and geneses of new senses of belief and unbelief.<sup>5</sup> Early accounts of secularization in England were chiefly based on church attendance statistics and polemical texts written by Victorian clergy, largely endorsing the view (which in fact dates from the Victorian period) that increased urbanization led to religious decline, and hence timing the collapse of English religion to the mid- or late nineteenth century.<sup>6</sup> Since the 1970s, however, historians have gradually pushed this postulated moment of collapse forwards in time.<sup>7</sup> Empirical studies have demonstrated that Victorian urban areas comprised a

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Press, 2011). For others what is at stake in the ‘postsecular’ is the very distinction between secularity and religion. Some have seen the term ‘religion’ as a specifically Western construct whose primary function has been to distinguish Western modernity from its political ‘others.’ See e.g. Talal Asad, *Genealogies of Religion: Disciplines and Reasons of Power in Christianity and Islam* (Baltimore and London: Johns Hopkins University Press, 1993); Russell T. McCutcheon, *Manufacturing Religion: The Discourse on Sui Generis Religion and the Politics of Nostalgia* (Oxford: Oxford University Press, 1997); Timothy Fitzgerald, *The Ideology of Religious Studies* (Oxford: Oxford University Press, 2000); Daniel Dubuisson, *The Western Construction of Religion: Myths, Knowledge, and Ideology* (Baltimore and London: The Johns Hopkins University Press, 2003); William T. Cavanaugh, *The Myth of Religious Violence: Secular Ideology and the Roots of Modern Conflict* (Oxford: Oxford University Press, 2009); James G. Crossley and Christian Karner, eds., *Writing History, Constructing Religion* (Aldershot: Ashgate Publishing, Ltd., 2005); Hans G. Kippenberg, *Discovering Religious History in the Modern Age*, trans. Barbara Harshav (Princeton and Oxford: Princeton University Press, 2002); Peter Harrison, *“Religion” and the Religions in the English Enlightenment* (Cambridge et al.: Cambridge University Press, 1990); Derek R. Peterson and Darren R. Walhof, eds., *The Invention of Religion: Rethinking Belief in Politics and History* (New Brunswick, NJ: Rutgers University Press, 2002). In a similar vein, some have focussed on the term ‘secularity’ (sometimes but not always conflated with ‘secularism’), and its fluid meanings beyond the Western context. See e.g. Talal Asad, *Formations of the Secular: Christianity, Islam, Modernity* (Stanford, CA: Stanford University Press, 2003); Rajeev Bhargava, *Secularism and Its Critics* (Oxford: Oxford University Press, 1998); Janet R. Jakobsen and Ann Pellegrini, eds., *Secularisms* (Durham; London: Duke University Press, 2008); Barry A. Kosmin and Ariela Keysar, eds., *Secularism and Secularity: Contemporary International Perspectives* (Hartford, CT: Institute for the Study of Secularism in Society and Culture, 2007). An overview of these developments can be found in William H. Swatos and Kevin J. Christiano, “Secularisation Theory: The Course of a Concept,” *Sociology of Religion* 60, no. 3 (1999): 209–228. In 2006, the journal *History and Theory* published a theme issue on the use of these concepts in historical studies. A good summary of the problems involved can be found in one of the essays, Catherine Bell, “Paradigms Behind (and Before) the Modern Concept of Religion,” *History and Theory* 45, no. 4 (2006): 27–46. Recently, some English theologians and philosophers have called for the dismissal of the ‘secular’ as a universal category altogether. See John Milbank, *Theology and Social Theory* (Oxford: Blackwell Publishing, 1993); Phillip Blond, *Post-secular Philosophy: Between Philosophy and Theology* (London: Routledge, 1998); John Milbank, Catherine Pickstock, and Graham Ward, *Radical Orthodoxy: A New Theology* (London: Routledge, 2002). Reactions from sociologists and continental philosophers of religion to this ‘theological turn’ can be found in William Keenan, “Post-Secular Sociology: Effusions of Religion in Late Modern Settings,” *European Journal of Social Theory* 5, no. 2 (2002): 279–290; Gregor McLennan, “Towards Post-Secular Sociology?,” *Sociology* 41, no. 5 (2007): 857–870; and Anthony Paul Smith and Daniel Whistler, *After the Postsecular and the Postmodern: New Essays in Continental Philosophy of Religion* (Newcastle: Cambridge Scholars Publishing, 2010).

<sup>5</sup> Overviews of the historiography can be found in Jeremy Morris, “The Strange Death of Christian Britain: Another Look at the Secularisation Debate,” *The Historical Journal* 46, no. 4 (2003): 963–976; Morris, “Secularization and Religious Experience”; Dominic Erdozain, “‘Cause Is Not Quite What It Used to Be’: The Return of Secularization,” *English Historical Review* 127, no. 525 (2012): 377–400; J. C. D. Clark, “Secularization and Modernization: The Failure of a ‘Grand Narrative’,” *The Historical Journal* 55, no. 01 (2012): 161–194.

<sup>6</sup> See e.g. E.R. Wickham, *Church and People in an Industrial City* (London: Lutterworth, 1969); K.S. Inglis, *Churches and the Working Classes in Victorian England* (London: Routledge & Kegan Paul Ltd, 1963); A.D. Gilbert, *Religion and Society in Industrial England*, ed. J. Stevenson, Themes in British Social History (London and New York: Longman, 1976). The most quoted source of church statistics among these accounts was Robert Currie, Alan Gilbert, and Lee Horsley, *Church and Churchgoers: Patterns of Church Growth in the British Isles Since 1700* (Oxford: Clarendon Press, 1977). In an early article, Callum Brown challenged how this source was being used. Callum G. Brown, “Did Urbanization Secularize Britain?,” *Urban History* 15, (1988): 2–14.

<sup>7</sup> Historians of secularization have generally held that empirical evidence should guide any grand theory of an ‘unsettlement of faith.’ See e.g. J.N. Morris, *Religion and Urban Change: Croydon, 1840-1914* (Woodbridge: The

range of collective 'life styles,' few of which could be characterized as consistently 'non-religious';<sup>8</sup> that confessional religious groups existed alongside and in dialogue with non-religious groups and wider society;<sup>9</sup> and that churches of all denominations successfully adapted to their changing circumstances, even early in the century and in places often associated with declining church attendance.<sup>10</sup> Likewise, conceptual critiques, acknowledging with Jeffrey Cox that 'religion rarely exists in a "pure" form [but] is almost always intermixed with something else,'<sup>11</sup> have emphasised the fluid nature of terms such as 'secularity' and 'religion' and their changing interplay within the discourses that mark individual and collective identities. Sarah Williams' important work on Southwark between 1880 and 1939, for instance, has demonstrated how, contrary to the perception of contemporary churchmen, the poorer urban classes remained deeply preoccupied with religion, even if in often idiosyncratic ways.<sup>12</sup>

Similarly, intellectual historians such as Boyd Hilton and Frank Turner have shown that religious ideas continued to have a strong influence, not only in the morally charged Victorian domestic sphere, but also in political and economic thought, throughout the nineteenth century.<sup>13</sup> Furthermore, alongside the emergence of self-consciously secular outlooks such as utilitarianism and secularism (a term coined by George Jacob Holyoake in the 1850s),<sup>14</sup> historians have pointed to religious revivals and intense pastoral-promotional work across the spectrum of Christian

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Boydell Press, 1992). This in contrast to accounts such as Owen Chadwick's, where emphasis is on the (assumed) intellectual impact on the population of natural science, historical criticism, or a 'loss' of a transcendent ground for morality. See Owen Chadwick, *The Secularization of the European Mind in the Nineteenth Century*, The Gifford Lectures in the University of Edinburgh (Cambridge: Cambridge University Press, 1975).

<sup>8</sup> Hugh McLeod, *Class and Religion in the Late Victorian City*, ed. J.F.C. Harrison and Stephen Yeo, Croom Helm Social History Series (London: Croom Helm, 1974).

<sup>9</sup> David Nash, "Reconnecting Religion with Cultural and Social History: Secularization's Failure as a Master Narrative," *Cultural and Social History* 1, no. 3 (2004): 302–325.

<sup>10</sup> Mark Smith, *Religion in Industrial Society: Oldham and Saddleworth, 1740–1865*, ed. Sir John Elliott et al., Oxford Historical Monographs (Oxford: Clarendon Press, 1994); Jeffrey Cox, *The English Churches in a Secular Society* (Oxford: Oxford University Press, 1982).

<sup>11</sup> Cox, *The English Churches in a Secular Society*, 16.

<sup>12</sup> S.C. Williams, *Religious Belief and Popular Culture in Southwark* (Oxford: Oxford University Press, 1999). Williams' study distinguishes itself in this historiography in that it considers source material not obviously or directly connected to churches or religious institutions. Taylor quotes Williams' research in Charles Taylor, *A Secular Age*, 439–40. See also Simon J.D. Green, *Religion in the Age of Decline: Organisation and Experience in Industrial Yorkshire, 1870–1920* (Cambridge: Cambridge University Press, 1996).

<sup>13</sup> Boyd Hilton, *The Age of Atonement: The Influence of Evangelicalism on Social and Economic Thought 1795–1865*, New Ed. (Oxford: Clarendon Press, 1991); G.R. Searle, *Morality and the Market in Victorian Britain* (Oxford: Clarendon Press, 1998); Frank M. Turner, "The Religious and Secular in Victorian Britain," in *Contesting Cultural Authority: Essays in Victorian Intellectual Life* (Cambridge: Cambridge University Press, 1993), 3–37.

<sup>14</sup> The term 'secularism' was distinguished from both 'atheism' and 'theism.' See e.g. George Jacob Holyoake, *The Trial of Theism* (London: F. Farrah, 1858), i. For accounts of the British secularism movement, see David Nash, *Secularism, Art and Freedom*, New ed. (London and New York: Continuum International Publishing Group Ltd., 1994); Edward Royle, *Victorian Infidels: The Origins of the British Secularist Movement, 1791–1866* (Manchester: Manchester University Press ND, 1974).

denominations, not least the great profusion of domestic missions in cities like London and Manchester.<sup>15</sup> While there certainly occurred something one could call a Victorian ‘crisis of faith,’ where some widely publicized authors dismissed the particular Christian context in which they had grown up, the period equally saw a high number of (re)conversions to traditional religious orthodoxies among the same generation.<sup>16</sup> In short, historians have shown that, together with ‘partial secularization’ in certain spheres, institutionalized religion and religious discourse and ideas proved remarkably resilient, adaptive, and indeed innovative in the wake of urbanization, industrialization, Darwinian evolution, and mass consumerism, among other features associated with the making of Victorian modernity.<sup>17</sup>

The debate took a crucial turn in 2001, when historian Callum Brown, taking a self-declared ‘postmodern’ approach, introduced the term ‘discursive Christianity.’<sup>18</sup> Religion may take many forms, Brown argued, and while some of these forms have been in decline for a long time, other forms were prevalent far into the twentieth century.<sup>19</sup> In Brown’s terms, the ‘discursive’ form of religion has to do with the protocols of moral (and gendered) behaviour and narrative structures to which people

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<sup>15</sup> Frank Prochaska, *Christianity and Social Service in Modern Britain: The Disinherited Spirit* (Oxford: Oxford University Press, 2006); David Roberts, *Paternalism in Early Victorian England*, Croom Helm Social History Series (London: Croom Helm, 1979); Douglas A. Reid, “Playing and Praying,” in *The Cambridge Urban History of Britain: 1840-1950*, ed. Martin J. Daunton and Peter Clark, vol. 3 (Cambridge: Cambridge University Press, 2000), 745–810; Kathleen Heasman, *Evangelicals in Action: An Appraisal of Their Social Work in the Victorian Era* (London: Geoffrey Bles Ltd, 1962); David W. Bebbington, *Evangelicalism in Modern Britain: A History from the 1730s to the 1980s*, New ed. (London: Routledge, 1988): 75-179.

<sup>16</sup> Timothy Larsen, *Crisis of Doubt: Honest Faith in Nineteenth-Century England* (Oxford: Oxford University Press, 2006); Giles St. Aubyn, *Souls in Torment: Victorian Faith in Crisis* (London: New European Publications, 2009). For a critique of Larsen, see David Nash, “Review: Crisis of Doubt: Honest Faith in Nineteenth-Century England,” *The English Historical Review* 123, no. 500 (2008): 233–235. Nash discusses Larsen’s perspective further in David Nash, “Reassessing the ‘Crisis of Faith’ in the Victorian Age: Eclecticism and the Spirit of Moral Inquiry,” *Journal of Victorian Culture* 16, no. 1 (2011): 65–82.

<sup>17</sup> John Wolffe, *God and Greater Britain: Religion and National Life in Britain and Ireland, 1843-1945* (London: Routledge, 1994); Ira Katznelson and Gareth Stedman Jones, eds., *Religion and the Political Imagination*, 1st ed. (Cambridge University Press, 2010).

<sup>18</sup> Callum G. Brown, *The Death of Christian Britain: Understanding Secularization 1800-2000*, ed. Hugh McLeod, *Christianity and Society in the Modern World* (London and New York: Routledge, 2001), 12. Brown has later reinforced this point. Religion, he states, is a difficult phenomenon to study, since it ‘is founded upon faith – on belief – that is, by its very definition, without proof of its validity.’ In other words, and despite some religious apologists insistence to the contrary, ‘the foundations of the religion rest on the faith, not the proof.’ Therefore, as the essence of religion itself remains inaccessible to the historian, ‘it is the social and cultural significance of religion that we study.’ Callum G. Brown, *Religion and Society in Twentieth-Century Britain*, ed. Keith Robbins, *Religion, Politics and Society in Britain* (Harlow: Pearson Education Limited, 2006), 8–9.

<sup>19</sup> In addition to *discursive* Christianity, Brown’s taxonomy includes *institutional*, *intellectual*, *functional*, and *diffusive* Christianity. Critics have pointed out that Brown’s equation of ‘religion’ and Christianity is problematic, and also his strong emphasis on specifically Evangelical forms of the latter. His book practically ignores not only internal theological debates and differences, but also the very presence of any Roman Catholics in England whatsoever (except for passing remarks that they were very similar to Evangelicals). See Morris, “The Strange Death of Christian Britain: Another Look at the Secularisation Debate.”

subscribe and so ‘subjectify’ themselves.<sup>20</sup> Building on this definition, his argument delayed the definitive secularization of England until the 1960s, when the ‘discourses of evangelicalism’—which until then had persisted and dominated British popular discourse—went into abrupt and rapid decline.<sup>21</sup>

Brown’s emphasis on collective discourses rather than individual belief, as well as his argument that changes in the former are important to changes in the latter (and hence to secularization), spurred renewed debate over the nature and timing of secularization in England. In 2006, a group of scholars published a collection of essays proposing to redefine the entire research agenda for scholars of religion and secularity in modern England.<sup>22</sup> Maintaining that Brown’s conceptual framework ‘[might] be usefully applied to the 40 years after his arbitrary cut-off point in 1963,’ they presented a series of case studies of ‘high levels of residual religion ... still functioning, in some form, as a critical part of British identity.’<sup>23</sup> Utilizing Charles Taylor’s diagnosis of the late twentieth century as an ‘age of authenticity,’<sup>24</sup> the authors argued that ‘traditional’ church practices had not so much been rejected as consciously reconfigured to meet the modern criteria of ‘authentic’ performance. They examined the transmission of ideas and identities across generations, emphasizing the flexibility of religious traditions in contrast to approaches that see them as inherently rigid and monolithic,<sup>25</sup> and pointed to the incorporation of religious modes of ethical thought in contemporary critiques of neo-liberal market theories. Religious traditions have remained important points of reference in public discussions of the common good, so they argued, even though this might increasingly be articulated in ‘multicultural’ terms.

The historiography of English secularization had thus come full circle, so to speak, and stood squarely within what might be called a ‘postsecular’ perspective:<sup>26</sup> religion did not die in the early or late nineteenth century, nor in the 1960s. In fact, it never ‘died’ at all, but was always being re-invented, re-oriented and re-animated,

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<sup>20</sup> Brown, *The Death of Christian Britain: Understanding Secularization 1800-2000*, 152–3.

<sup>21</sup> Several scholars of secularization have followed Brown in emphasizing the 1960s as the key point of religious decline. See for example Simon J. D. Green, *The Passing of Protestant England: Secularisation and Social Change, C. 1920-1960* (Cambridge: Cambridge University Press, 2010); Hugh McLeod, *The Religious Crisis of the 1960s* (Oxford: Oxford University Press, 2007).

<sup>22</sup> Jane Garnett et al., eds., *Redefining Christian Britain: Post 1945 Perspectives* (London: SCM Press, 2006).

<sup>23</sup> *Ibid.*, 6.

<sup>24</sup> *Ibid.*, 12, 21–34. See also Charles Taylor, *The Ethics of Authenticity* (Boston: Harvard University Press, 1992).

<sup>25</sup> Garnett et al., *Redefining Christian Britain*, 12–13, 115–126.

<sup>26</sup> Though the appropriateness of this label will be problematized in the conclusion of this study.

communally as well as individually. Indeed, some historians and sociologists began speaking of processes of ‘desecularization’ to describe the resilience of traditional religions facing direct opposition in many parts of the world, in addition to the innumerable ‘new age’ forms of religiosity that have proliferated in late modern societies.<sup>27</sup> The traditional secularization thesis, its heuristic value exhausted, was finally laid to rest.

Yet, only a year after Taylor’s understanding of ‘authenticity’ had been utilized in order to provide scholars with postsecular alternatives to the secularization thesis, Taylor himself published his book *A Secular Age*, in which he developed nothing less than a revised secularization thesis.<sup>28</sup> For Taylor, modernity is indeed secular, but *only* on a particular level, namely in the temporal dimension of the modern social imaginary; for Taylor, that is, secularity denotes a particular kind of *time* embedded in social practices in which large strata of the population participate, regardless of their religious or non-religious beliefs. We shall return to this below; but in short, Taylor’s revised secularization thesis enables Victorian scholars to recast the question of Victorian secularization on a new level. This requires, however, that we bring both the historiography of secularization and Taylor’s thesis into conversation with another historiographical strand – namely, the history of the ‘social’ and what has recently been called the ‘material turn.’

### *Material histories of ‘the social’*

While both the recent historiography of secularization and Taylor’s work (as we will see) engage with various ‘cultural’ discourses and ways of imagining communal identities, they fail to engage with the material and technological networks through which collectives are mediated and secured. This kind of mediation has become the concern of recent attempts to rethink, relocate, and reassemble the ‘social,’ after this concept was (according to some theorists) relieved of its assumed autonomy during the 1980s and 90s, and ‘dissolved’ into its relative, mainly ‘discursive,’ constituents.<sup>29</sup> Early historiographical debates centred on the contested validity of various conceptual ‘turns’—postmodern, linguistic, and cultural—in other disciplines such as literature

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<sup>27</sup> Peter L. Berger, *The Desecularization of the World: Resurgent Religion and World Politics* (Grand Rapids, MI: Eerdmans Publishing Company, 1999); Vyacheslav Karpov, “Desecularization: A Conceptual Framework,” *Journal of Church and State* 52, no. 2 (2010): 232–270.

<sup>28</sup> Taylor, *A Secular Age*.

<sup>29</sup> See e.g. Scott Lash and John Urry, “The Dissolution of the Social?,” in *Sociological Theory in Transition*, ed. Mark L. Wardell and Stephen P. Turner (London: George Allen & Unwin, 1986), 95–126.

studies or sociology and their relevance to and bearing on historical disciplines.<sup>30</sup> In a narrow sense, the ‘social’ might refer to a sphere distinct from other spheres, domains or systems – economic, political, sanitary, educational, medicinal, penal, and so on: so one might have social policy, for instance, as opposed to legal policy. However, this historiography was concerned with the ‘social’ understood in a broader sense, where the term takes on a more ‘foundational’ meaning as the very basis on which everything rests. In this, more expansive, all-consuming, or ‘sociological’ sense, the ‘social’ is what provides an explanatory ground for phenomena occurring in the spheres which form but parts or aspects of its abstract totality: the economic system *of* ‘society,’ say, or the political system *of* ‘society.’ A central concern for the historians advocating these theoretical shifts was to historicise the ‘social’ in this second sense; they wanted to trace the multiple mediations and constructions of the concept of the modern ‘social’ as an ontological ground that later came to be taken for granted by the equally modern scientific disciplines bearing its name.<sup>31</sup> Through a rigorous questioning of the underlying assumptions of ‘social-scientific’ disciplines—such as the separation of a ‘material’ foundation from a ‘social’ super-structure, where the former might be endowed with ontological and causal primacy—their hope was that a history of the ‘social’ might emerge, and thus to some degree reconfigure the field of social history itself.<sup>32</sup>

Drawing on the conceptual vocabulary of Michel Foucault, whose work became—and remains—defining for this strand of scholarship, historians have primarily written such histories of the ‘social’ in terms of ‘governmental rationality,’ or ‘governmentality.’<sup>33</sup> Crudely, this Foucauldian concept carries two meanings, one

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<sup>30</sup> See the debates following the publication of Gareth Stedman Jones’ analysis of the concept ‘class’ as taking a variety of contextualized discursive forms. Gareth Stedman Jones, *Languages of Class: Studies in English Working Class History, 1832-1982* (Cambridge et al.: Cambridge University Press, 1983). David Mayfield and Susan Thorne, “Social History and Its Discontents: Gareth Stedman Jones and the Politics of Language,” *Social History* 17, no. 2 (1992): 165–188; Jon Lawrence and Miles Taylor, “The Poverty of Protest: Gareth Stedman Jones and the Politics of Language - A Reply,” *Social History* 18, no. 1 (1993): 1–15; Patrick Joyce, “The Imaginary Discontents of Social History: A Note of Response to Mayfield and Thorne, and Lawrence and Taylor,” *Social History* 18, no. 1 (1993): 81–85; James Vernon, “Who’s Afraid of the Linguistic Turn? The Politics of Social History and Its Discontents,” *Social History* 19, no. 1 (1994): 81–97; Geoff Eley and Keith Nield, *The Future of Class in History: What’s Left of the Social* (Ann Arbor: The University of Michigan Press, 2007).

<sup>31</sup> Patrick Joyce, ed., *The Social in Question: New Bearings in History and the Social Sciences* (London and New York: Routledge, 2002).

<sup>32</sup> See e.g. Patrick Joyce, “The End of Social History?,” *Social History* 20, no. 1 (1995): 73–91. See also William H. Sewell Jr., *Logics of History: Social Theory and Social Transformation* (Chicago and London: University of Chicago Press, 2005).

<sup>33</sup> Colin Gordon, “Governmental Rationality: An Introduction,” in *The Foucault Effect: Studies in Governmentality, With Two Lectures and An Interview With Michel Foucault*, ed. Graham Burchell, Colin Gordon, and Peter Miller (London et al.: Harvester Wheatsheaf, 1991), 1–51.

generic and one historical.<sup>34</sup> Generically, it denotes the web of institutions, technical practices and underlying assumptions through which the habits and manners of living humans is orchestrated – the ‘conduct of conduct,’ as it is sometimes put. Historically, it denotes a distinct administrative manner of exercising state power emerging since (approximately) the sixteenth century and gaining pre-eminence during the nineteenth, a form of government at once ‘totalizing’ and ‘individualizing,’ which required (and implied) specific notions of self-governing subjects existing in an all-embracing, if always mutating, administrative context.

This theoretical framework has allowed historians to move beyond the emphasis on language and discourse characterising accounts of typical ‘social’ categories such as ‘class,’ ‘race’ or ‘gender,’<sup>35</sup> and examine how notions of power, rationality, freedom, and subjectivity are embedded in and established through mundane, embodied practices. On this view, the seemingly fixed essences of such entities as ‘the state,’ ‘society,’ or ‘the economy’ exist only as functions of practices of governance. Foucauldian scholars such as Nikolas Rose and Thomas Osborne, for example, have demonstrated how, during the nineteenth century, the ‘social’ was constituted as a realm or domain separate from the ‘economic’ and the ‘political’ through its embedding in the unarticulated collective norms of quotidian conduct, and performed through various mundane technologies such as sewers, street lights, and newspapers.<sup>36</sup> In a similar vein, philosopher Ian Hacking has explored the development of social statistics and statistical bureaucracy as governmental technologies used in order to map a ‘society’ which was also constituted in the very act of measuring it.<sup>37</sup> Other scholars, most notably Patrick Joyce, have explored how the ‘freedom’ of nineteenth-century liberalism was actively manufactured through a complex web of institutions

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<sup>34</sup> See discussion in Mitchell Dean, *Governmentality: Power and Rule in Modern Society*, 2nd ed. (London et al.: Sage Publications, 2010), 24–30.

<sup>35</sup> See e.g. Patrick Joyce, *Visions of the People: Industrial England and the Question of Class 1848-1914* (Cambridge et al.: Cambridge University Press, 1993); Patrick Joyce, *Democratic Subjects: The Self and the Social in Nineteenth-Century England* (Cambridge et al.: Cambridge University Press, 1994); Patrick Joyce, *Class* (Oxford: Oxford University Press, 1995); Joan Wallach Scott, *Gender and the Politics of History* (New York: Columbia University Press, 1999); Dror Wahrman, *Imagining the Middle Class: The Political Representation of Class in Britain, C. 1780-1840* (Cambridge et al.: Cambridge University Press, 1995); Mary Poovey, *Making a Social Body: British Cultural Formations, 1830-1864* (Chicago and London: The University of Chicago Press, 1995); Nikolas Rose, *Governing the Soul: Shaping of the Private Self*, 2nd Revised ed. (London and New York: Free Association Books, 1999).

<sup>36</sup> Nikolas Rose, *Powers of Freedom: Reframing Political Thought* (Cambridge et al.: Cambridge University Press, 1999); Andrew Barry, Thomas Osborne, and Nikolas Rose, eds., *Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government*, 2nd ed. (Chicago and London: University of Chicago Press, 1996). See also Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910*, Illustrated ed. (Chicago & London: University of Chicago Press, 2008).

<sup>37</sup> Ian Hacking, *The Taming of Chance*, Ideas in Context 17 (Cambridge et al.: Cambridge University Press, 1990).



and strategic practices that cultivated precisely the kind of self-governing (and hence also ‘resisting’) subjects required for the liberal state’s emerging and intensely self-critical mode of governance.<sup>38</sup>

More recently, while still thinking with Foucault, these and other scholars have attempted to push the analysis further, remaining sensitive to conceptual developments in other disciplines. Here, another French thinker has become an important source of conceptual tools: the network theorist and philosopher Bruno Latour.<sup>39</sup> Latour’s authorship is wide-ranging and complex, but what has received most attention from historians is his constant challenging of the strict distinction between human and non-human participants in the constantly shifting networks that make up collectives, as well as his insistence that this distinction itself plays an important part in the historical emergence of the ‘social’ as an autonomous entity.<sup>40</sup> As Joyce, a main proponent of these conceptual shifts, summarizes: for historians taking this approach, ‘[i]nstead of viewing culture as *for* or *around* practice, culture is now located *in* practice, and in material forms.’<sup>41</sup>

This ‘material turn’ is not a return to the Marxist historical materialism of the social history of the 1960s and 70s, immensely varied and sophisticated though this was. Nor is it concerned with mixing the ‘mutual interactions’ between originally distinct ‘cultural’ and ‘technological’ spheres.<sup>42</sup> Rather, it generally retains the Foucauldian

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<sup>38</sup> See e.g. Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (London and New York: Verso, 2003); Elaine Hadley, *Living Liberalism: Practical Citizenship in Mid-Victorian Britain* (Chicago & London: University of Chicago Press, 2010); Lauren M. E. Goodlad, *Victorian Literature and the Victorian State: Character and Governance in a Liberal Society* (Baltimore and London: The Johns Hopkins University Press, 2003); David Wayne Thomas, *Cultivating Victorians: Liberal Culture and the Aesthetic* (Philadelphia, PA: University of Pennsylvania Press, 2003).

<sup>39</sup> Bruno Latour’s work has often been classified as sociology (or indeed anthropology) of science. Recently, he has stated that he wants his work to be read as primarily concerned with philosophical speculation. See e.g. Bruno Latour, “Coming Out as a Philosopher,” *Social Studies of Science* 40, no. 4 (2010): 599–608. Latour’s philosophy has been presented in Graham Harman, *Prince of Networks: Bruno Latour and Metaphysics* (Melbourne: re.press, 2009).

<sup>40</sup> As with Foucault, historians utilizing Latour’s conceptual tools do so eclectically, and often modify the terms as they see fit depending on specific historical contexts. This is fully compatible with Latour’s own practice. For Latour’s own hesitancy regarding any ‘final’ definition of any - including his own - theoretical frameworks, see Bruno Latour, “On Recalling ANT,” in *Actor Network Theory and After*, Sociological Review Monographs (Oxford: Blackwell Publishers, 1999), 15–25. The emphasis on material objects as real ‘actants’ in networks is in any case a recurring theme in Latour’s work. See e.g. Bruno Latour, “Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts,” in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, ed. Wiebe E. Bijker and John Law, 1 (Cambridge, MA. and London: The MIT Press, 1992), 225–258; Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*, New Ed. (Oxford and New York: Oxford University Press, 2007). For a discussion of the human/non-human distinction in history, see the essays in Martin Reuss and Stephen H. Cutcliffe, eds., *The Illusory Boundary: Environment and Technology in History* (Charlottesville and London: University of Virginia Press, 2010).

<sup>41</sup> Joyce, *The Rule of Freedom*, 7.

<sup>42</sup> See e.g. the ‘cultural history of technology’ in Ben Marsden and Crosbie Smith, *Engineering Empires: A Cultural History of Technology in Nineteenth-Century Britain* (Basingstoke: Palgrave MacMillan, 2005).

focus on embedded, diffuse notions of power and governance, but with a more articulated concern with the material networks through which these notions are mediated, as well as the active labour required to maintain their relative stability.<sup>43</sup> Put another way, a Latourian premise is that no distinction can be made *a priori* between spheres of human ‘culture’ on one side and non-human ‘technology’ on the other, so that one could then describe their mutual interaction. Instead, the very distinction between human and non-human ‘actants’ (the term ‘actors’ modified by Latour so as to grant agency to humans and non-humans on equal terms) is seen as emergent from particular ways of ordering specific networks in practice. Non-human objects and humans alike are granted certain levels of agency, seen as constituting a single set of shared ‘conditions of possibility,’ where everybody/thing resists (in various modes) complete submission to external mastery.<sup>44</sup> In Joyce’s words, historians’ ‘task of analysis [now] involves following the actants and the networks themselves, particularly those that become “strategic” because of the number of connections they make possible in a highly contingent world.’<sup>45</sup>

Most of the current work in this still novel historiography focuses on the technological constitution of modern state power in domestic and imperial contexts.<sup>46</sup> As yet, however—and in stark contrast to post-colonial scholarship in similar contexts—there has been little explicit concern with the question of secularization, however the process might be construed (or contested).<sup>47</sup> Just as importantly for the present argument, historians following the ‘material turn’ have yet to pay any sustained or critical attention to the implicit temporal schemas and assumptions that underpin and are embodied in the material networks and mundane practices they write about – the conceptions of time that lend these a sense of legitimacy and rationality. Below, we will see that there are resources in the already opened Latourian

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<sup>43</sup> See e.g. James Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, New ed. (New Haven and London: Yale University Press, 1999).

<sup>44</sup> Joyce, *The Rule of Freedom*, 10–13. See also Patrick Joyce, “What Is the ‘Social’ in Social History?,” *Past & Present*, no. 206 (2010): 213–248.

<sup>45</sup> Joyce, “What Is the ‘Social’ in Social History?,” 189.

<sup>46</sup> Patrick Joyce, “Filing the Raj: Political Technologies of the Imperial British State,” in *Material Powers: Cultural Studies, History and the Material Turn*, ed. Tony Bennett and Patrick Joyce, Culture, Economy and the Social 3 (London and New York: Routledge, 2010), 102–123; Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley; Los Angeles; London: University of California Press, 2002); Miles Ogborn, *Indian Ink: Script and Print in the Making of the English East India Company*, illustrated ed. (Ann Arbor and London: University of Chicago Press, 2007).

<sup>47</sup> Postcolonial scholars have often utilized the concept of governmentality in their analyses of how categories of ‘religion’ and ‘secularity’ have been constructed and resisted in colonial contexts. See e.g. Markus Dressler and Arvind Mandair, *Secularism and Religion-Making* (Oxford and New York: Oxford University Press, 2011); Peterson and Walhof, *The Invention of Religion*; Asad, *Formations of the Secular: Christianity, Islam, Modernity*.

conceptual toolbox that might allow us to examine such implicit conceptions of time, even beyond questions of governmentality. But first, we must return to the work of Charles Taylor, whose conceptual framework provides the necessary connections between the historiographies of secularization and material governance, in turn suggesting possible paths beyond both.

### CHARLES TAYLOR: RELOCATING SECULARITY

Taylor's 2007 book *A Secular Age* has been called his *magnum opus*,<sup>48</sup> a work of 'formidable learning and penetrating philosophical insight'<sup>49</sup> both 'magnificent, epoch-making,'<sup>50</sup> 'brilliant yet perplexing,'<sup>51</sup> 'dense and demanding,'<sup>52</sup> and has received celebratory reviews in a range of interdisciplinary as well as discipline-specific academic journals.<sup>53</sup> Incorporating much of his earlier work, it doubtlessly constitutes the most important book in his career-long work for 'non-reductive' accounts of human living.<sup>54</sup> In *A Secular Age*, Taylor's main target of critique is what he calls 'subtraction narratives' of secularization—what we have called the traditional secularization thesis—where the 'secular' is seen as a kind of fundamental reality formerly hidden but now, through various processes of modernization, excavated from underneath layers of religious superstition: when religion is subtracted, secularity remains.<sup>55</sup> In contrast to such narratives, Taylor presents one of how secularity itself had to be constructed both in theory and practice before gradually

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<sup>48</sup> Paul J. Griffiths, "[No Title]," *The Thomist* 72, no. 4 (2008): 665–669.

<sup>49</sup> John Kinsey, "Critical Notice," *Philosophical Investigation* 33, no. 1 (2009): 75–81.

<sup>50</sup> John Milbank, "Review Article: A Closer Walk on the Wild Side: Some Comments on Charles Taylor's *A Secular Age*," *Studies in Christian Ethics* 22, no. 1 (2009): 89–104.

<sup>51</sup> Peter E. Gordon, "The Place of the Sacred in the Absence of God: Charles Taylor's *Secular Age*," *Journal of the History of Ideas* 69, no. 4 (2008): 647–673.

<sup>52</sup> Daniel Ross, "Review Essay: *A Secular Age*," *Thesis Eleven* 99 (2009): 112–121.

<sup>53</sup> See for example Michael Warner, Jonathan VanAntwerpen, and Craig Calhoun, eds., *Varieties of Secularism in a Secular Age* (Cambridge, MA and London: Harvard University Press, 2010). Taylor was awarded both the 2008 Kyoto Prize for Thought and Ethics and the 2007 Templeton Prize for 'progress towards research or discoveries about spiritual realities,' and *A Secular Age* has, perhaps as a result, received much attention from philosophical and theological journals. See for example the dedicated issues of *Modern Theology* 26, no. 3 (2010); *Political Theology* 11, no. 2 (2010); *Thesis Eleven* 99, no. 3 (2009); *New Blackfriars* 91, no. 1036 (2010)

<sup>54</sup> Taylor's authorship has long exhibited an anti-reductive thrust, from his critique of the psychological reductionism of the behaviourist school in 1965 to his arguments against reductive philosophical accounts of the human self in 1989, and recently against reductive accounts of religion. See Charles Taylor, *The Explanation of Behaviour*, International Library of Philosophy and Scientific Method (London: Routledge & Kegan Paul, 1965); Charles Taylor, *Sources of the Self: The Making of the Modern Identity* (Cambridge: Cambridge University Press, 1989); Charles Taylor, *Varieties of Religion Today: William James Revisited* (London: Harvard University Press, 2002).

<sup>55</sup> See in particular Taylor, *A Secular Age*, 423–437.

assuming its role as a neutral and taken-for-granted ‘background’ on which modern life is performed in all its varieties.<sup>56</sup>

Taylor distinguishes between three different understandings of secularization, and focuses primarily on the third.<sup>57</sup> First, there is the understanding of secularization as the gradual retreat of religion from public life (‘secularity 1’). Secondly, there is the understanding of secularization as a decline in religious belief and practice (‘secularity 2’). As we have seen, both of these understandings have been contested in Victorian scholarship. Nevertheless, Taylor insists that secularization has occurred. Pitching his analysis on a third level (‘secularity 3’), he is interested not so much in belief or unbelief *per se* as in their ‘shared conditions’ in modernity; that is, how belief and unbelief both take on new meanings on a shared and constantly changing background. As he puts it, because ‘all beliefs are held within a context or framework of the taken-for-granted, which usually remains tacit, and may even be as yet unacknowledged by the agent, because never formulated,’ and because this tacit background undergoes change over time, ‘belief in God isn’t quite the same thing in 1500 and 2000.’<sup>58</sup> For Taylor, then, to speak of modern secularity is to speak of ‘the new conditions in which belief and unbelief uneasily coexist, and often struggle with each other in contemporary society.’<sup>59</sup>

Taylor’s thesis is an attempt to articulate the process of secularization as a series of mutations in this largely unarticulated background. He wants to trace how we<sup>60</sup> have been able to change our life-world, our common ‘sensed context,’ from one in which belief in God was taken for granted into one where, ‘even for the staunchest believer,’ what is instead taken for granted is the availability of innumerable alternative versions of belief or non-belief.<sup>61</sup> For the purposes of this thesis, two aspects of his thesis are of particular interest. One is the concept of the *social imaginary*. Another is his

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<sup>56</sup> *Ibid.*, 12–14, 172–175.

<sup>57</sup> *Ibid.*, 1–22.

<sup>58</sup> *Ibid.*, 13.

<sup>59</sup> Taylor, *A Secular Age*, 295.

<sup>60</sup> This ‘we’ comprises, for Taylor, the (sometimes unaware) inheritors of Western (Latin) Christianity – that is, the vast majority of those who now live in Europe and North America.

<sup>61</sup> Taylor, *A Secular Age*, 3.

diagnosis of the temporal dimension of modern social imaginaries, which is where he ultimately locates the concept (and performance) of secularity.<sup>62</sup>

### *Social Imaginaries*

Taylor pitches his analysis on a level that echoes the phenomenological thought of thinkers such as Heidegger, Wittgenstein and Merleau-Ponty: he is interested in the ‘life-worlds,’ the unarticulated ‘backgrounds,’ the ‘pre-theoretical’ assumptions that are always-already implicit in the embodied and habitual practices of human collectives<sup>63</sup> – and here he introduces the concept of the *social imaginary*.<sup>64</sup> For Taylor, a social imaginary denotes ‘the way that we collectively imagine our social life;’ the ‘ways in which [people] imagine their social existence, how they fit together with others, how things go [and *ought to go*] on between them and their fellows, the expectations which are normally met, and the deeper normative notions and images which underlie these expectations.’<sup>65</sup> It denotes the basic assumptions that make particular collective practices possible, *together with* the practices in which the assumptions are embedded. As such, the social imaginary is, importantly, not limited to the intelligentsia, but rather ‘shared by large groups of people, if not the whole society.’<sup>66</sup> It is ‘that common understanding which makes possible common practices and a widely shared sense of legitimacy.’<sup>67</sup>

Historically speaking, Taylor contrasts two ‘ideal types’ of social imaginaries, a pre-modern *ancien regime* imaginary and a modern *mobilization* imaginary, and describes a slow shift between the two during the late eighteenth and nineteenth centuries.<sup>68</sup> The former type denotes an order of hierarchical complementarity seen to pre-exist the actual human beings enveloped by it, where different times and places might have

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<sup>62</sup> It must be emphasized that many aspects of Taylor’s complex thesis have been left out of the following summary: the shift from a ‘porous’ to a ‘buffered’ self; the shift from an enchanted cosmos to a disenchanted universe; the establishment of an ‘immanent frame’ and its peculiar ‘closed’ worldviews, and so on.

<sup>63</sup> Ruth Abbey, *Charles Taylor* (Tedington: Acumen, 2000), 178–93.

<sup>64</sup> Originally coined by Cornelius Castoriadis, the term ‘social imaginary’ has been modified for different purposes by a number of thinkers. Taylor elaborates on his own version in chapters 4 and 5 of *A Secular Age*, which consist almost entirely of material published in his earlier book *Modern Social Imaginaries*. See in particular Taylor, *A Secular Age*, 159–211, 212–18; Charles Taylor, *Modern Social Imaginaries* (London: Duke University Press, 2004). For a comparison between Taylor and other scholars’ use of the term, see Claudia Strauss, “The Imaginary,” *Anthropological Theory* 6, no. 3 (2006): 322–344.

<sup>65</sup> Taylor, *A Secular Age*, 171.

<sup>66</sup> *Ibid.*, 172.

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*, 423–72. Here Taylor’s account resonates with J.C.D. Clark’s descriptions of the *ancien régime* in England. J.C.D. Clark, *English Society, 1660-1832: Religion, Ideology and Politics During the Ancien Régime*, 2nd ed. (Cambridge: Cambridge University Press, 2000).

specific meanings inherent to them; where a symbiosis of folk religiosity and institutional religion provides several layers of ‘sense’ to collective rituals; and where individuals are secondary to the community, submitted to the king/lord/local nobility, and seen as belonging to the whole *through* their belonging to local ‘microcosms.’ Taylor’s prime example of this ideal type is the broadly ‘Catholic’ context of pre-revolutionary France, with its sense of belonging to ecclesiastical parishes, and where people participated in collective practices embedding multiple layers of meaning.

By contrast, the ideal type of *mobilization* denotes the notion that whatever political, social, and ecclesial structures people aspire to have must be mobilized into existence; that humans must actively create and put into effect the social reality they wish to live in; that adherence to anything must be voluntary on the individual level; and that God is present only in an abstract sense through the ‘grand design’ of the universe rather than in specific places and/or at specific times. Social imaginaries of this sort imply that human beings are atomistic individuals who co-operate with a view towards mutual benefit, and construct society—albeit according to ‘social’ laws immanent to the universe itself—without any transcendent point of reference.<sup>69</sup> Indeed, this is the case even if there are expressed views that this underlying order has been ‘designed’ by God, as in seventeenth- and eighteenth-century Deism.<sup>70</sup> Taylor’s main example here is the American Declaration of Independence, where society is seen as ultimately grounded in the present action of ‘we the people,’ however much God is invoked as a designer and guarantor of such popular democracy.<sup>71</sup>

As ideal types, these two visions are starkly different (and indeed Taylor is acutely aware of just how ‘ideal’ and simplified they are). The first ideal type speaks of a cosmos – a hierarchical Chain of Being where everything has its rightful place and participates in higher planes and transcendent spheres mediated by privileged structures, entities and persons (kings, clergymen, magistrates and so on); the second speaks of a universe (both ‘social’ and ‘natural’) which is fully autonomous, and existing apart from any relation to or participation in any form of transcendence.<sup>72</sup>

Here, the sources for the full experience of a flourishing human life are seen

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<sup>69</sup> For Taylor this is no simple ‘rise of individualism, but rather a new way of imagining ‘togetherness’ – community imagined as constituted by individuals voluntarily coming together for mutual benefit. See Taylor, *A Secular Age*, 157.

<sup>70</sup> In fact, Taylor sees such providential Deism as *the* turning point from ‘pre-modern’ to ‘modern’ social imaginaries. *Ibid.*, 221–95.

<sup>71</sup> *Ibid.*, 197, 446–8.

<sup>72</sup> *Ibid.*, 59–61, 322–51 .

ultimately to transcend the present order of things, whether related to Christian notions of *agape* or a Platonic realm of Ideas. In the second type, moral sources are seen as inherent to something purely immanent, such as a specifically human nature, or Nature conceived in ‘mechanical,’ deistic terms, for instance. Rather than needing moral sources to be mediated through privileged structures or persons, each individual is seen as having direct ‘unmediated’ access to the world and to ‘society,’ independent of status or inherited personal and familial allegiances.

For Taylor, the processes associated with modernization can be approached in terms of a multi-layered shift from the *ancien regime* type to the *mobilization* type.

However, he is careful to avoid any kind of idealism, or of ‘attributing to “ideas” an independent force in history.’<sup>73</sup> In fact, one strength of Taylor’s concept of the social imaginary is how it challenges the dichotomy between theory and practice, or the perception of these two as ‘rival causal agencies,’ where one could be given precedence over the other. ‘[B]ecause human practices are the kind of thing that makes sense,’ he argues, ‘certain “ideas” are internal to them; one cannot distinguish the two in order to ask the question, which causes which.’<sup>74</sup> Embodied collective practices carry an implicit and often unarticulated ‘know-how,’ or as Taylor says, a certain kind of ‘understanding implicit in practice.’<sup>75</sup> The concept of the social imaginary seeks to capture this seamless interaction between ‘the understanding that makes the practice possible’ and the ‘practice that largely carries the understanding.’

In the course of history, then, the social imaginary mutates and changes in a constant interplay between material practices and the unarticulated meanings implicit in those practices. What is at stake is not whether anyone uses ‘religious’ terms when they articulate their belief or unbelief; but rather the unarticulated understandings of human agency and autonomy, moral sources, and legitimacy that are implicit in the practices they perform. On this level, the very boundaries between the ‘religious’ and the ‘non-religious’ become ambiguous. Indeed, a central point for Taylor is that the (Western) modern notion of human autonomy and ability to remake ourselves and our society without any necessary transcendent basis, stems partly from a specifically Christian concern for ‘ordinary life’—following the orthodox insistence on the incarnation, death and resurrection of God—a concern that came to the fore in

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<sup>73</sup> Ibid., 212.

<sup>74</sup> Ibid., 212.

<sup>75</sup> Ibid., 173.

particular ways during the centuries of the Reformation and Counter-Reformation.<sup>76</sup> Subsequently, religious elites' imposition of practical pietistic disciplines, often motivated by a passion to 'purge' local festivals from pagan elements, carried, by implication, the historical seeds of 'buffered,' individual selves potentially able to master both themselves, their society, and their surrounding (hence, since it can be mastered) 'disenchanted' universe.<sup>77</sup> For Taylor, then, the process of secularization takes place on a particular level or dimension, where practices shape understandings and vice versa. It denotes not a decline in 'religion,' but a specific mutation in the social imaginary: a mutation to do with conceptions of time – and this brings us to the second important aspect of Taylor's thesis.

*Modern temporality: purely secular time*

The social imaginary carries a range of implicit understandings. For Taylor, the term *secularity* refers primarily to its embedded understanding of time; or what we might call its temporal dimension.<sup>78</sup> Here he draws on a specific meaning of the ancient word *saeculum*, which referred to a certain measure of linear time.<sup>79</sup>

“Secular” ... comes from ‘saeculum’, a century or age. When it begins to be used as one term in an opposition, like secular/regular clergy; or being in the saeculum, as against in religion (that is, some monastic order), the original meaning is being drawn on in a very specific way. People who are in the saeculum are embedded in ordinary time, they are living the life of ordinary time; as against those who have turned away from this in order to live closer to eternity. The word is thus used for ordinary against higher time. A parallel distinction is temporal/spiritual. One is concerned with things in ordinary time, the other with the affairs of eternity.<sup>80</sup>

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<sup>76</sup> Taylor draws heavily on the French thinker Marcel Gauchet in his account of modernization. Here, however, he departs from the latter, as he also signalled in his own foreword to the English translation of Gauchet's *Disenchantment*. Where Gauchet sees modern secularity as emerging through Christianity *as such*, Taylor sees it as a strictly speaking unnecessary and relatively recent deviation (although the doctrine of Incarnation obviously made this an issue from early on) brought about through an over-zealous puritan drive – in other words, secularity followed from certain theological misconceptions and liturgical malpractices. Nevertheless, the fact that Taylor continually refers to this shift as already implicated by the 'Axial revolution,' reveals how his narrative is heavily indebted to Gauchet. See e.g. *Ibid.*, 146, 157, 578. Marcel Gauchet, *The Disenchantment of the World: A Political History of Religion* (Princeton: Princeton University Press, 1997).

<sup>77</sup> Taylor, *A Secular Age*, 539–44. For Taylor, then, specifically Christian notions of the high value of the 'ordinary' embodied life together with a human 'hubristic rage to define' paradoxically became driving forces behind disenchantment, eventually making 'self-sufficient' humanism a conceivable, viable, and in the end seemingly obvious and preferable moral and existential option (though not, obviously, without its own set of malaises).

<sup>78</sup> For Taylor's reflections on the changing meanings of the term 'secular,' see Charles Taylor, "The Polysemy of the Secular," *Social Research* 76, no. 4 (Winter 2009): 1143–1166.

<sup>79</sup> The term is still used in this way in cosmological sciences.

<sup>80</sup> Taylor, *A Secular Age*, 54–5.



Endorsing Benedict Anderson's argument in his classic *Imagined Communities*, Taylor argues that modern societies inhabit a 'homogenous and empty time,' and that for modern social imaginaries this has come to constitute the only available temporal scheme.<sup>81</sup> For Taylor, empty and homogenous time *is* secular time; and by extension, secularization is the process through which the modern social imaginary comes to carry a conception of time as *exclusively* secular, empty and homogenous. In modernity, Taylor argues, secular time 'is not just the dominant domain of present-day action, but is time itself. Our stance entrenches us in a picture, which we eventually become unable to challenge.'<sup>82</sup> Modern social imaginaries carry secular time and secular time only.

A fundamental distinction between modernity and what came before it is hence marked by a shift in the temporal dimension of the social imaginary. Medieval societies operated within a 'multiplex' of temporalities: '[a]s well as secular time, the time of ordinary "temporal" existence, in which things happen one after another in an even rhythm, there were higher times, modes of eternity.'<sup>83</sup> Taylor distinguishes three such forms of higher time. First, the Hellenistic realm of Ideas, of which sublunar time is a mere mirror image tending toward realms of the cosmos, while eternity is fixed and unvarying.<sup>84</sup> Second, there is what Taylor calls an Augustinian eternity, which emerged from the synthesis of Hellenistic understandings of eternity with the Christian insistence on the incarnation of God in created history. This eternity is a sort of 'gathering' of time, where neither the temporal nor the eternal are independent of each other and where creation participates liturgically in the Trinitarian life of God.<sup>85</sup> Importantly, on this view, the entering of God into the ordinary and mundane world in the event of Incarnation lends legitimacy to secular time itself.<sup>86</sup> Thirdly, there is what Mircea Eliade called a 'time of origin,' where the establishment of a society's 'Law' is conceived of as belonging to a mythic past which is both 'behind' but also 'above'

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<sup>81</sup> Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso Editions and NLB, 1983).

<sup>82</sup> Taylor, *A Secular Age*, 566.

<sup>83</sup> *Ibid.*, 96.

<sup>84</sup> *Ibid.*, 55–6.

<sup>85</sup> *Ibid.*, 56–7.

<sup>86</sup> As noted, Marcel Gauchet considers this dynamic a feature specific to Western Christianity. Taylor emphasizes the particular way it was brought to the fore by 16<sup>th</sup> century reformers, both Protestant and Catholic. See Gauchet, *Disenchantment*, 67–97.

the time of the here and now.<sup>87</sup> Hence, in pre-modern social imaginaries every present action in ordinary secular time was situated within a multiplex of higher times, always shot through with transcendent meanings.<sup>88</sup> The late medieval notion of ‘the King’s two bodies,’ for example, echoed the unchanging realms of Platonic eternity; the ‘ancient constitution’ of society was seen as inherited from a ‘time out of mind;’ and church liturgies—which included the rituals of specific guilds—participated in the ‘incarnational’ working-out of salvation, embedding its participants in the Eternity of God.<sup>89</sup>

By contrast, argues Taylor, modern society has undergone a slow and gradual ‘purging’ of the abundant time-consciousness that characterized pre-modernity, so that ‘higher times’ have been obscured and in the end negated completely – at least on the level of the social imaginary. ‘The pure secular time of simultaneity and succession is the medium of the different forms of the modern social imaginary. We [in the modern West] are enveloped in both our public and private lives by a pervasive time-ordering which has no place for the higher times of earlier ages. All human action is here seen to take place exclusively within empty, homogenous time.’ Hence, the process of secularization

can be seen from one angle as the rejection of higher times, and the positing of time as purely profane. Events now exist only in this one dimension, in which they stand at greater and lesser temporal distance, and in relations of causality with other events of the same kind. The modern notion of simultaneity comes to be, in which events utterly unrelated in cause or meaning are held together simply by their co-occurrence at the same point in this single profane time-line... the move to ... “secularity” is obviously related to this radically purged time-consciousness. It comes when associations are placed firmly and wholly in homogenous, profane time, whether or not the higher time is negated altogether, or other associations are still admitted to exist in it.<sup>90</sup>

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<sup>87</sup> Taylor, *A Secular Age*, 57–8. Mircea Eliade, *The Sacred and the Profane: The Nature of Religion* (Orlando, FL: Houghton Mifflin Harcourt, 1987).

<sup>88</sup> Anthropologists have long recognized that the distinction between ‘traditional’/‘natural’/‘cyclical’ and ‘modern’/‘social’/‘linear’ concepts of time is overly simplistic. See e.g. Alfred Gell, *The Anthropology of Time: Cultural Constructions of Temporal Maps and Images*, Explorations in Anthropology (Berg, 1992); Nancy D. Munn, “The Cultural Anthropology of Time: A Critical Essay,” *Annual Review of Anthropology* 21 (1992): 93–123.

<sup>89</sup> See e.g. John Greville Agard Pocock, *The Ancient Constitution and the Feudal Law: A Study of English Historical Thought in the Seventeenth Century* (Cambridge: Cambridge University Press, 1975); Ernst Hartwig Kantorowicz, *The King’s Two Bodies: a Study in Mediaeval Political Theology* (Princeton: Princeton University Press, 1957); Catherine Pickstock, *After Writing: On the Liturgical Consummation of Philosophy*, Challenges in Contemporary Theology (Oxford: Blackwell Publishers, 1998).

<sup>90</sup> Taylor, *A Secular Age*, 195–6.

For Taylor, the claim that modernity is secular does not, then, suggest an absence of religion, but rather acknowledges that ‘religion [in modernity] occupies a different place, compatible with the sense that all social action takes place in profane time.’<sup>91</sup>

In this sense, modern social imaginaries are fundamentally secular, even if they involve elements associated with ‘religious’ discourses. Indeed, as so much recent historiography has pointed out, rather than a decline in religious discourse, modernity has spurred a proliferation of competing perspectives on questions of ultimate meaning (something Taylor dubs the ‘Nova Effect’).<sup>92</sup> The Victorian period, for instance, saw not only the emergence of consciously ‘secular’ alternatives to Christian outlooks such as Comte’s ‘Religion of Humanity,’ but the various discourses associated with Christianity continued to influence, for instance, official imperial policies.<sup>93</sup> Protestant missionary endeavours were dependent upon, although also critical of, political technologies of imperial expansion.<sup>94</sup> At the same time, increasing contact with Asian and Arab traditions in particular, spurred a variety of Victorian ‘New Age’ cults seeking to syncretize what was seen as ritualistic residues of an ancient ‘Ur-religion,’ as well as popular pseudo-scientific ventures into Spiritualism.<sup>95</sup> These developments in turn provided rationales for new academic exercises in ‘Comparative Religion.’<sup>96</sup> Yet, from Taylor’s perspective, the underlying temporal scheme lending legitimacy to this widening range of outlooks was—and remains—fundamentally secular: that is, it was underpinned by modes of practice and organization premised on autonomous human action in and through secular time.

Taylor’s revised secularization thesis has immediate consequences for the existing historiography of secularization in Victorian England. If secularization denotes a change in time-consciousness carried in widely shared practices, then it will no longer suffice to demonstrate religious ‘resilience’ in the face of modernization, or to recast

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<sup>91</sup> Taylor, *Modern Social Imaginaries*, 194.

<sup>92</sup> Taylor, *A Secular Age*, 297. (Part III)

<sup>93</sup> Hilary M. Carey, *God’s Empire: Religion and Colonialism in the British World, C.1801-1908* (Cambridge et al.: Cambridge University Press, 2011).

<sup>94</sup> Andrew Porter, *Religion Versus Empire?: British Protestant Missionaries and Overseas Expansion, 1700-1914* (Manchester and New York: Manchester University Press, 2004).

<sup>95</sup> Alison Butler, *Victorian Occultism and the Making of Modern Magic: Invoking Tradition*, 1st ed. (Basingstoke: Palgrave Macmillan, 2011). This was also commented upon at the time. See e.g. Charles Maurice Davies, *Mystic London: Or, Phases of Occult Life in the Metropolis* (Cambridge: Cambridge University Press, 2011); Henry Steel Olcott, *Theosophy, Religion and Occult Science: With Glossary of Eastern Words* (Cambridge: Cambridge University Press, 2011).

<sup>96</sup> Marjorie Wheeler-Barclay, *The Science of Religion in Britain, 1860-1915* (Charlottesville and London: University of Virginia Press, 2010).

‘decline’ as ‘re-invention’ or ‘adaptation’ of articulated beliefs. For example, while nineteenth-century evangelicalism may, on one level, have demonstrated an ‘exceptional *vitality* of ... religious life,’<sup>97</sup> as is so often remarked, the fact that it participated in a wider context where the general mode of association was increasingly becoming more akin to what Taylor calls the *mobilization* type of imaginary signals a more fundamental secularity: that is, an implicit notion that society is made up of autonomous individuals voluntarily assembling to construct their own social order, without any ‘ground’ transcending the on-going action of society itself in and through secular time. In this sense, Victorian churches that adopted an ‘associationalist’ mode of organization were participating in a ‘secular’ mode of being, not because they thereby exposed themselves to more plausible ‘non-religious’ competition, as some have argued,<sup>98</sup> but because the temporality and sense of legitimacy implicit in this very mode of voluntary association was fundamentally secular, regardless of participants’ articulated belief. Put another way—and in a manner which recalls Foucault’s ‘archaeological’ work—Taylor’s thesis regarding ‘the secular’ digs deeper, excavating the very basic sense in which collectives imagine and perform agency.

#### BEYOND TAYLOR: TECHNOLOGY AND TEMPORALITY

As described in the opening of this chapter, historians have largely abandoned the idea of Victorian secularization. One immediate benefit of introducing Taylor’s thesis is that it provides a novel historiographical framework through which Victorian scholars can repose this question by relocating the process to a new level. At the heart of Taylor’s secularization thesis is a concern with time, not only how it is imagined or theorized, but also how it is *practised*—how its various forms are constituted through and embedded in collective performances—Independently of articulated belief or non-belief. In brief, modernity is secular not because it is hostile to religious confession, but because modern social imaginaries carry an exclusively secular conception of time.

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<sup>97</sup> Smith, *Religion in Industrial Society*, 272.

<sup>98</sup> See Green, *Religion in the Age of Decline*.

However, Taylor's thesis requires complicating on at least two fronts.<sup>99</sup> First, his thesis is incredibly nuanced and solid so long as it discusses ideas; it is not so strong when it comes to documenting the myriad practices and technologies through which the modern social imaginary and its many facets and variants are performed. For all his talk about 'understanding implicit in practice,' Taylor's narrative remains primarily a history of ideas articulated by intellectuals and men of letters, quite detached from collective, mundane performances. When utilizing his conceptual framework, it is therefore necessary to pay more attention to the technological networks that mediate assumptions about time, agency, legitimacy, and so on. Secondly, Taylor's diagnosis of modern temporality as exclusively secular must be contested. As mentioned above, Taylor is concerned to move beyond what he calls 'subtraction narratives' of secularization. Arguably, however, Taylor presents his own subtraction narrative. Repeatedly, he contends that modernity involves a subtraction of higher times from the social imaginary, so that secular time, previously intertwined with higher times, becomes the sole temporal framework of collective life. On this level, he still presents a unidirectional, even if causally complex, development of a monolithic and essentially secular modernity (again, with the 'secular' being located on a particular level).

### *Material mediation*

Given Taylor's insistence on the importance of not separating ideas and practices, his book pays surprisingly little attention to the embodied performances and technological networks that mediate social imaginaries. Only once in his discussion of modern temporality does he mention time keeping technologies, for instance, and then merely as a symptom of the mental 'instrumental stance' characterizing the imposed disciplines of Reform.<sup>100</sup> Taylor insistently—and rightly—rejects the tendency to see

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<sup>99</sup> Specialized historians will easily find something to critique in a work of more than 800 pages covering 500 years of history of politics, religion, philosophy, and literature, with selected examples from several loosely defined geographical locations. The following, however, is concerned with some central conceptual themes, on which Taylor's thesis of secularization arguably hinges.

<sup>100</sup> The passage is the following: '[T]he instrumental stance, and the thoroughgoing secularization of time, go together. Our sense of being comprehensively in secular time is very much reinforced by the very thick environment of measured time which we have woven around ourselves in our civilization. Our lives are measured and shaped by accurate clock-readings, without which we couldn't function as we do. This thick environment is both the condition and the consequence of our far-reaching attempt to make the best of time, to use it well, not to waste it. It is the condition and consequence of time becoming for us a resource, which we have to make use of wisely and to advantage. And we remember that this too was one of the modes of discipline inculcated by the Puritan Reformers. The dominance of instrumental rationality in our world, and the pervasiveness of secular time go together.' Taylor, *A Secular Age*, 541–2. Taylor here echoes and in fact refers specifically to Weber's

disciplinary measures or technological change as simply determining how people experience their life-world,<sup>101</sup> but with the result that his narrative becomes one about ideas somehow trickling down from canonical thinkers to the masses, independently of material things and embodied habits.<sup>102</sup> By contrast, this thesis will emphasize particular technologies and material objects, together with the associated practices, which in the Victorian period mediated implicit understandings of—in this instance—conceptions of time.

Taylor's neglect of material technologies stands in stark contrast to the scholarship associated with the 'material turn' described above.<sup>103</sup> In their study of time conceptions in England and Wales between 1300 and 1800, for instance, geographers Paul Glennie and Nigel Thrift<sup>104</sup> argue, similarly to Taylor, that conceptions of time are carried in embodied practices (or what they call 'conducts of time'<sup>105</sup>) that precede

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discussion of 'The Religious Foundations of Worldly Asceticism'. See Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, trans. Talcott Parsons, Routledge Classics (London and New York: Routledge, 2001), 72–80.

<sup>101</sup> For two examples of this tendency, see David S. Landes, *Revolution in Time: Clocks and the Making of the Modern World*, vol. Revised edition (London: Viking, 2000); Lewis Mumford, *Technics & Civilization* (Chicago: University of Chicago Press, 2010).

<sup>102</sup> Such 'trickle-down narratives' sit uneasily with historical studies such as Robert Poole's examination of the calendar reform in 1752. Poole argues that around this time, the term 'calendar' became detached from its former political and cultural connotations (which had made the adoption of the Catholic Gregorian calendar in 1582 so hotly contested), and came to denote a neutral chronometrical framework that could be applied in a pragmatic and instrumental manner. This might seem to affirm Taylor's description of how an 'instrumental stance' and the secularization of time go together. However, Poole demonstrates that the elitist attempt to impose the new Newtonian time frame in fact resulted primarily in a 'significant breach in the relations between elite and popular cultures' rather than a progressive secularization of the collective time consciousness. The reform remained partial at best. Robert Poole, *Time's Alteration: Calendar Reform in Early Modern England* (London: UCL Press, 1998); Taylor, *A Secular Age*, 541.

<sup>103</sup> Recently, similar accusations have been levelled at the entire phenomenological school to which Taylor's work belongs. See e.g. the work of Don Ihde. Don Ihde, *Technology and the Lifeworld: From Garden to Earth*, The Indiana Series in the Philosophy of Technology (Bloomington and Indianapolis: Indiana University Press, 1990); Don Ihde, *Postphenomenology*, Northwestern University Studies in Phenomenology and Existential Philosophy (Evanston, IL: Northwestern University Press, 1993); Don Ihde, *Bodies in Tehnology*, Electronic Mediations 5 (Minneapolis and London: University of Minnesota Press, 2002). Similarly, emerging fields of philosophy of technology and 'object-oriented' metaphysics are critical of what is seen as phenomenology's reduction of technological tools and objects to human perception and interpretation. For a general overview of recent philosophy of technology, see Val Dusek, *Philosophy of Technology: An Introduction* (Oxford: Blackwell Publishing, 2006); Peter-Paul Verbeek, *What Things Do: Philosophical Reflections on Technology, Agency, and Design* (University Park, Pennsylvania: The Pennsylvania State University Press, 2000); Adrian MacKenzie, *Transductions: Bodies and Machines at Speed*, Technologies: Studies in Culture and Theory 3 (London and New York: Continuum, 2002). Philosopher Graham Harman has challenged the common phenomenological reading of Heidegger's tool-analysis, and marshalled the work of Bruno Latour (and Marshall McLuhan) in an attempt to establish a more 'object-oriented' metaphysics. See Graham Harman, *Guerilla Metaphysics: Phenomenology and the Carpentry of Things* (Chicago and La Salle, IL: Open Court, 2005). See also Bruno Latour and Couze Venn, "Morality and Technology: The End of the Means," *Theory, Culture & Society* 19, no. 5/6 (2002): 247–260.

<sup>104</sup> The work of Nigel Thrift has been central to the developments in human geography. See e.g. Nigel Thrift, *Spatial Formations*, Theory, Culture & Society (London: Sage Publications, 1996); Andrew Leyshon and Nigel Thrift, *Money/Space: Geographies of Monetary Transformation* (London and New York: Routledge, 1997); Jon May and Nigel Thrift, eds., *TimeSpace: Geographies of Temporality*, Critical Geographies 13 (London: Routledge, 2001); Nigel Thrift, *Knowing Capitalism*, Theory, Culture & Society (London: Sage Publications, 2005); Paul Glennie and Nigel Thrift, *Shaping the Day: A History of Timekeeping in England and Wales 1300-1800* (Oxford: Oxford University Press, 2009).

<sup>105</sup> Glennie and Thrift, *Shaping the Day*, 81.

any purely conceptual beliefs on the part of the practitioners. However, in contrast to Taylor, they emphasize that these practices, together with the understandings they carry, are integrated in material networks in which human and non-human entities are equally important. For Glennie and Thrift, following Latour, the very distinction between the ‘human’ and the ‘non-human’ emerges from the way such networks operate, even though it later comes to be taken as *a priori*.<sup>106</sup> Since technological instruments are ‘always-already’ as much part of the networks as human participants, they are denied any assumed capacity to force a reductive and homogenized conception of time upon heterogeneous human communities. Put another way, there has never been any autonomously available technology that could impose, as if from outside, an ‘artificial’ time upon people who were by default following an uncontaminated ‘human’ or ‘natural’ time. Instead, Glennie and Thrift argue, this ‘separation of the “technical” and the “social” is precisely the conceptual problem that needs to be surmounted.’<sup>107</sup> Like any other conception of time, then, secular time emerged from material networks comprising both human and non-human nodes. It could only become dominant (though never hegemonic) through the constant work of the entire network, and it only remained stable as ‘common sense’ through the wide-ranging and continuous mobilization of a range of actors, some human, others nonhuman.<sup>108</sup> In a sense, we might say that secular time was *mediated* through material networks.

But how, more precisely, can the mediation of secular time be examined on this level? Bruno Latour—whose work, as described above, has become an important source of conceptual tools for scholars following the ‘material turn’—has developed one particular concept helpful for just this task: namely what he calls *immutable mobiles*. Immutable mobiles are, quite simply, ‘objects which have the properties of being *mobile* but also *immutable*;<sup>9</sup> that is, they are things that can be transported without transformation; objects isolated from surrounding processes of change, and hence able to move *through* the world without manifesting deterioration.<sup>109</sup> Initially, Latour

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<sup>106</sup> For a contrary argument that certain temporal assumptions (e.g. of ‘before’ and ‘after’) are implicit in *techné* understood as the application of technical ‘means’ to specific ‘ends,’ see Lorenzo C. Simpson, *Technology, Time, and the Conversations of Modernity* (London and New York: Routledge, 1995).

<sup>107</sup> Glennie and Thrift, *Shaping the Day*, 28.

<sup>108</sup> As Adrian MacKenzie has recently put it, ‘[c]locktime neither stands apart from collectives nor is it completely coded within their social functions or purposes.’ MacKenzie, *Transductions*, 112.

<sup>109</sup> A primary essay on immutable mobiles is Bruno Latour, “Drawing Things Together,” in *Representation in Scientific Practice*, ed. Steve Woolgar and Michael Lynch (Cambridge, MA: The MIT Press, 1990), 19–68.

developed this concept during his early work in the field of Science Studies, as a way of accounting for long distance control in scientific practices. He argued that communication and reproduction of experimental results in different locations was made possible by scientists' meticulous construction of formalized inscriptions on paper—graphs, diagrams, abstracts, or images, for instance—which could be transported between locations without introducing error or modification in the process.<sup>110</sup> However, immutable mobiles are not necessarily scientific inscriptions on paper; the term might refer to all kinds of objects manifesting the required properties of joint immutability and mobility.

This might seem to suggest that immutable mobiles in fact *are* unified and stable entities. However, Latour's argument is that immutability and mobility must be continuously made to occur: that is, these properties must be intentionally invested in whatever object is to exhibit them. In short, immutable mobiles require vast amounts of work in order to retain their properties and functions as such.<sup>111</sup> While they seem obvious and 'given,' they are in fact immense human-technological achievements, made possible only through the mobilization of numerous network links: institutions, ideas, technologies, objects, genres, and bodies, for example.<sup>112</sup> Imparting immutability to a mobile entity, or making an immutable entity mobile, requires careful construction, coordination, and maintenance performed by an extensive chain of mediators.

Crucially for the present purposes, Latour argues that when networks are thus mobilized to construct immutable mobiles, they thereby also mediate specific conceptions of time.<sup>113</sup> The very existence of entities able to move independently of the changes implied in time's passage is premised on a concept of time as

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Emphasis in original. See also Bruno Latour, *Science in Action: How To Follow Scientists and Engineers Through Society* (Boston: Harvard University Press, 1987).

<sup>110</sup> Latour, "Drawing Things Together."

<sup>111</sup> Latour also makes this point about objects in general. See e.g. Bruno Latour, "Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry* 30, no. 2 (2004): 225–248.

<sup>112</sup> Importantly, Latour places both abstract ideas and concrete material objects on the same ontological footing. If it does the work, it must be accounted for as a full 'actant' in the network. This is an aspect of Latour's ontology that unsurprisingly has been relatively downplayed by the humanistic scholars evoking his name. For some philosophers, however, this is precisely one of the points where Latour's ideas become interesting. See Harman, *Prince of Networks: Bruno Latour and Metaphysics*. In his most recent philosophical work, Latour continues to develop this idea, primarily by distinguishing between different *modes* of existence, all of which emerge in specific circumstances. Bruno Latour, "Reflections on Etienne Souriau's Les Différents Modes d'Existence," in *The Speculative Turn: Continental Materialism and Realism*, ed. Levi Bryant, Nick Srnicek, and Graham Harman (Melbourne: re.press, 2011), 304–333. The present thesis draws only loosely on Latour's conceptual framework, and does not adopt nor depend on his whole metaphysical philosophy.

<sup>113</sup> See Bruno Latour, "Trains of Thought - Piaget, Formalism and the Fifth Dimension," in *Thinking Time: A Multidisciplinary Perspective on Time* (Toronto: Hogrefe & Huber, 2005), 173–187.



independent of movement and change, and hence the construction of the former is entwined with the construction of the latter. Though secular time is conceived of as universal and abstract, then, its realization is always a local and material achievement. Latour uses railway travelling as an example of this. With deliberate allusion to Einstein's 'twin paradox,' he compares the journeys of two twins to the same destination, one cutting her way through a thick jungle, the other, her brother, travelling by train. Latour points out that the former's body 'pays' more for its passage than the latter. We might say that her body *passes time* in a different manner; the processes of aging, for instance, are progressing at a higher rate because of the opposition her body has to negotiate. Her twin brother, by contrast,

[sits] quietly in his first-class air-conditioned carriage and read[s] his newspaper... [Afterwards, h]is body does not bear any trace of the voyage, except for a few wrinkles on his trousers and maybe a few cramps because he did not stretch his long legs often enough... [t]he trip for him was like nothing.<sup>114</sup>

For the railway passenger, the journey requires no labour, and it is therefore as if time passes independently of his movement. His clock is ticking, but he is passive as time passes 'around' him, so to speak. On Latour's view, the entire railway network—its engineers, iron rails, gravel banks, financial investors, machinists, electric currents, cushions, and so on—cooperates for the purpose of turning the traveller into an immutable mobile, a substance stable enough to be transported between locations without itself undergoing transformation.<sup>115</sup> Insofar as the difficult work of imparting both mobility and immutability onto the traveller is successful, then, the network also mediates a sense of secular time passing independently of the traveller's movement.

To summarize, we agree with Taylor that secular time is a central feature of modern social imaginaries; but we also insist that it can be approached as a human-technological achievement in specific material networks. Whereas Taylor speaks of ideas carried in (often unspecified) embodied practices, this thesis will focus on specific and concrete connections between human actors and material objects that mediated conceptions of secular time in Victorian England. Latour's concept of immutable mobiles will be a helpful tool in locating secular time on this level.

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<sup>114</sup> Ibid., 175.

<sup>115</sup> Chapter 4 will discuss how the Victorian railway network was mobilized in order to turn travellers into immutable mobiles, and how this implied the possibility of coordinating journeys and calculating times of arrival.

*Temporal dialectic: two kinds of time*

The second aspect of Taylor's thesis in need of complicating is his claim that modernity is secular. This claim rests on his diagnosis of the temporal dimension of modern social imaginaries as *purely* secular, in contrast to the temporal multiplex characterizing pre-modern societies; indeed, on no less than seven occasions in the book Taylor declares that modernity is characterized by '*purely* secular time.'<sup>116</sup> Echoing Benedict Anderson's description of modern temporality as 'empty and homogenous,' Taylor argues that modern ways of imagining collective life are premised on this particular time conception *alone*.<sup>117</sup>

Taylor is indeed aware of the potential reductionism implicit in making such a claim. While affirming that 'the pure secular time of simultaneity and succession is the medium of the different forms of the modern social imaginary,' he admits that

[i]t is doubtful if humans could ever live exclusively in [homogenous, empty time]. Time for us continues to be marked by cycles, through which we orient ourselves. [Our routines give] a sense to [our] lives, distinguishing moments from each other, giving each its sense, creating mini-kairoi to mark the passage of time. It's as though we humans have a need for gathered time, in one form or another.<sup>118</sup>

However, Taylor relegates the many manifestations of 'non-secular' times (for example narratives of gradual maturation, or personalized 'kairotic' moments) to the status of human reactions; they exhibit irreducible deep-seated longings for 'fullness,' in spite of and against the homogeneity and 'flattening' tendencies of modern secular time.<sup>119</sup> But crucially, they are not—according to Taylor—found on the deeper level of the social imaginary. This enables him to maintain that the temporal dimension of modern social imaginaries is exclusively secular, and hence reductive and artificial, *and* that human quests for 'fullness' are irreducible and proliferate in modernity precisely because of secular time's hegemony on this level.

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<sup>116</sup> Taylor, *A Secular Age*, 197, 209, 328, 329, 368, 713, 719. Emphasis mine.

<sup>117</sup> For similar accounts of the 'one-dimensional' temporality of modernity, see e.g. Elizabeth Deeds Ermarth, *Sequel to History: Postmodernism and the Crisis of Representational Time* (New Jersey: Princeton University Press, 1992); Donald J. Wilcox, *The Measure of Times Past: Pre-Newtonian Chronologies and the Rhetoric of Relative Time* (Chicago and London: The University of Chicago Press, 1987); Richard Fenn, *Time Exposure: The Personal Experience of Time in Secular Societies* (Oxford: Oxford University Press, 2001).

<sup>118</sup> Taylor, *A Secular Age*, 714.

<sup>119</sup> For the first point, see *Ibid.*, 96, 129, 271, 713. For the second, see *Ibid.*, 712–716, 719.

There are at least two immediate problems with this diagnosis. One is, as medievalist scholars have long argued, that Anderson's analysis of modern temporality oversimplifies 'pre-modern' temporalities, wrongly presupposing that 'the medieval Christian mind' simply lacked any conception of the homogenous time allegedly characteristic of modernity.<sup>120</sup> Notwithstanding Taylor's far richer account of the medieval temporal 'multiplex'—as well as his insistence that secular time did indeed feature among its facets (it being so central to the doctrine of Incarnation)—his overall narrative still exhibits several of the familiar tropes typical of the unidirectional modernization narratives he wants to counter. For instance, it moves from an 'age of reform,' which begins to break away from a former (unspecified) medieval order, through a 'turning point' around the time of the Enlightenment (roughly 1650-1800), to the long nineteenth-century 'age of mobilization,' and finally the late twentieth-century 'age of authenticity.'<sup>121</sup> Here, as noted above, Taylor presents his own 'subtraction narrative:' gradually, the temporal dimension of the social imaginary sheds its layers of 'higher times,' and modern temporality emerges as monolithic and purely secular – albeit spurring various reactions and 'counter-movements' from the irreducible human beings that suffer under its rule.

Secondly—and more crucially for present purposes—as postcolonial scholars have pointed out,<sup>122</sup> the temporality of modernity is in fact not homogeneous, but contradictory and heterogeneous.<sup>123</sup> Contrary to Taylor's (after Anderson's) claim, these critics argue, modern imagined communities such as the 'nation' emerge not solely from homogenous, empty time, but rather from a kind of 'double temporality... [of] two incommensurable temporalities ... that threaten its [the imagined

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<sup>120</sup> Kathleen Davis, "National Writing in the Ninth Century: A Reminder for Postcolonial Thinking About the Nation," *Journal of Medieval and Early Modern Studies* 28, no. 3 (1998): 611–637.

<sup>121</sup> As will be discussed in chapter 2, Taylor's own qualitative distinction between historical ages implies a quite different kind of time than the 'empty and homogenous' time that according to his thesis is characteristic of modernity.

<sup>122</sup> See e.g. Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference*, Princeton Studies in Culture/Power/History (Princeton and Oxford: Princeton University Press, 2000); Timothy Mitchell, ed., *Questions of Modernity*, Contradictions of Modernity Series (Minneapolis, MN: University of Minnesota Press, 2000). On the interaction between medievalist and postcolonial scholarship, see Bruce W. Holsinger, "Medieval Studies, Postcolonial Studies, and the Genealogies of Critique," *Speculum* 77, no. 4 (2002): 1195–1227.

<sup>123</sup> A strong critique of Anderson's thesis runs through the work of Partha Chatterjee. See e.g. Partha Chatterjee, "The Nation in Heterogenous Time," *Futures* 37 (2005): 925–942; Partha Chatterjee, *The Nation and Its Fragments: Colonial and Postcolonial History*, Princeton Studies in Culture/Power/Religion 7 (New Jersey: Princeton University Press, 1993).

community's] coherence.<sup>124</sup> Taylor's work on secularization arises partly out of a concern to 'provincialize Europe' – that is, to articulate the underlying assumptions of (his own) Western modern civilization so that genuine dialogue might ensue between 'multiple modernities.'<sup>125</sup> However, in designating (Western) modern temporality as exclusively secular, Taylor ends up only reiterating the old story of 'an underlying and fundamentally singular modernity, modified by local circumstances into a multiplicity of "cultural" forms,' as so many variations upon a generic (Western) theme.<sup>126</sup>

By contrast, the present thesis insists on reading the temporal dimension of the modern social imaginary itself as constituted by a temporal dialectic. More precisely, it makes an analytical distinction between *two* conceptions of time embedded on this very level. On the one hand, there is what we will call *secular* time.<sup>127</sup> This time is homogenous, uniform, and isochronic; everywhere the same. It is 'empty' in the sense that it is without inherent qualities and independent from the events occurring 'within' it. It is abstract, presumed as a purely analytical space, and representable as a potentially infinite continuum that can be divided into equal intervals or 'gaps' between geometric points. It thus allows for accurate chronological calculations of past and future alike. On the other hand, there is what we will call *historical* time. This is time conceived as a qualitative dimension in and of itself. It is pure, self-generative duration, representable as a vital and unpredictable force, or a current that swirls in various directions at once. It allows for accelerations and decelerations, inflations, contractions, evolutions, growths, declines, revolutions, ruptures, and returns. Importantly, none of these two kinds of time takes precedence over the other; it is not that secular time represents modernity, while historical time represents 'human' reactions to a monolithic, modern temporality. The two kinds of time are contradictory, but are nevertheless articulated together, as elements of the same temporal dialectic.

The term 'dialectic' might require some clarification. While the present analysis seeks to *distinguish* two kinds of time (the term *analysis* literally means to 'untie' or 'break

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<sup>124</sup> Homi Bhabha, "Dissemination: Time, Narrative and the Margins of the Modern Nation," in *The Location of Culture* (Abingdon; New York: Routledge, 2005), 199–244.

<sup>125</sup> This is closely related to his advocacy of a 'politics of recognition.' See Abbey, *Charles Taylor*, 101–149; Taylor, *Modern Social Imaginaries*, 195–6.

<sup>126</sup> Timothy Mitchell, "Introduction," in *Questions of Modernity*, ed. Timothy Mitchell, Contradictions of Modernity Series (Minneapolis, MN: University of Minnesota Press, 2000), xii.

<sup>127</sup> The reasons for this choice of name will be elaborated in chapter 3.

up’ the constituting elements of a composite), it must be emphasized that the two are not actually *separable*. Hence, the term dialectic should not be understood—as it too often is—as a kind of zigzag progression; that first there is secular time, then there is historical time, then secular time somewhat modified, and so on. Rather, the term ‘dialectic’ recognizes in a single event a *joint articulation of contradictions* that founds that event – what might be called that event’s ‘constituting contradiction.’<sup>128</sup> Thus understood, the present analysis is concerned with the ‘in between’ where, in the words of a current philosopher, ‘the very process of coming to be is marked by a constitutive doubleness.’<sup>129</sup> On such a view, the truth of historical and secular time ‘is not the truth of one or the other, but of *both* in their mutual implication.’<sup>130</sup> Both times are equally real; both are fundamental and mutually constitutive. The analytical distinction does not favour one over the other, nor does it suggest that the two operate independently of one another; their joint-yet-contradictory occurrence, their constant intermingling, and indeed their confusion (lit. *flowing together*), is precisely what is at stake.

An analytical distinction of this sort is exemplified in philosopher Gilles Deleuze’s reading of Henri Bergson.<sup>131</sup> For Deleuze, there is a fundamental distinction between time conceived as duration (‘memory’) and time conceived of as a spatialized container in which objects can be conceived as stable substances (‘perception’).<sup>132</sup> The two conceptions must be distinguished because the former—pure duration, not being mixed with *spatiality*—is a more ‘authentic’ *temporality*.

The confusion of space and time, the assimilation of time into space, make [sic] us think that the whole is given, even if only in principle, even if only

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<sup>128</sup> On dialectics, see Ch. 4 in William Desmond, *Being and the Between*, SUNY Series in Philosophy (Albany: State University of New York Press, 1995).

<sup>129</sup> *Ibid.*, 132.

<sup>130</sup> *Ibid.*, 141.

<sup>131</sup> Gilles Deleuze, *Bergsonism*, trans. Hugh Tomlinson and Barbara Habberjam (New York: Zone Books, 2002). Obviously, this is a highly selective and simplified rendition of Deleuze’s thought. An extensive treatment of its implications for a philosophy of history can be found in Jay Lampert, *Deleuze and Guattari’s Philosophy of History*, Continuum Studies in Continental Philosophy 6 (London and New York: Continuum, 2006); Jeffrey A Bell and Claire Colebrook, eds., *Deleuze and History*, Deleuze Connections (Edinburgh: Edinburgh University Press, 2009). Bergson’s most important work on this question was *Time and Free Will*, where he argued that the concept of homogenous time really resulted from a mental ‘spatialization’ of time; an ‘intrusion of the idea of space into the realm of pure duration.’ Henri Bergson, *Time and Free Will*, trans. F.L. Pogson, Library of Philosophy (London: Swan Sonnenschein & Co. Lim., 2010), vii.

<sup>132</sup> For Deleuze, this fundamental asymmetry between temporality and spatiality is constitutive not only of our experience, but of reality as such. See Giovanna Borradori, “The Temporalization of Difference: Reflections on Deleuze’s Interpretation of Bergson,” *Continental Philosophy Review* 34 (2001): 6. For an introduction to Deleuzian and Bergsonian ontology, and its difference from phenomenological approaches to ‘time consciousness’, see e.g. Matt Hodges, “Rethinking Time’s Arrow: Bergson, Deleuze and the Anthropology of Time,” *Anthropological Theory* 8, no. 4 (2008): 399–429.

in the eyes of God ... [T]ime is only there now as a screen that hides the eternal from us, or that shows us successively what a God or a superhuman intelligence would see in a single glance. Now this illusion is inevitable as soon as we spatialize time.<sup>133</sup>

For (Deleuze's) Bergson, when we think of time, it is always conceived and represented to our minds in spatial terms. It is impossible to *think* pure duration apart from spatialized time – the distinction can only be *intuited*. The term 'intuition' might connote something vague and indeterminable. Here, however, it denotes a rigorous 'method of division' by which the conditions of experience are treated as composites, and divided into their constituting elements.<sup>134</sup> By way of this method, one can distinguish between time as a thought (and so spatialized) concept and time as pure duration prior to such abstraction.<sup>135</sup> In other philosophical works, Deleuze describes this distinction as between two *kinds* of time. One kind of time 'measures the actions of bodies and causes and the state of their mixtures in depth'—this is what we have called *historical* time. The other kind of time is an abstract series of empty presents that are 'infinitely subdivisible,' represented as a straight line—what we have called *secular* time. The former is 'always definite, active or passive;' the latter is 'Infinite and eternally neutral.'<sup>136</sup>

Crucially, for Deleuze, even though these two kinds of time can be distinguished, they cannot be separated.<sup>137</sup> The two times are always confused, as one of Deleuze's interlocutors, philosopher Michel Serres, describes it in his book *The Five Senses*.<sup>138</sup> In a striking passage, Serres meditates on the relation between the two times in the annual recordings of a French wine producer.

[I]n the left-hand column, a simple list of calendar years, a roll-call of years gone by, none omitted, none repeated; in the right-hand column, a list of notable years, glorious or catastrophic. 1930, the year I was born, produced an unspeakable liquid and nothing better, yet 1929 (when my brother was born), has been equalled only three times since in the whole Bordeaux

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<sup>133</sup> Deleuze, *Bergsonism*, 104.

<sup>134</sup> Perhaps the term *dialectic* does not sit so well with Deleuze's philosophy, since he emphasizes processes of becoming and duration as more authentically temporal. Michel Serres (see below) is more willing to grant secular time ontological standing on a par with historical time. Yet, for the present purposes, where we are concerned with *distinguishing* the secular time of empty chronology from the historical time of self-generating duration, these ideas are nevertheless helpful in emphasizing how the two kinds of time are *analytically distinguishable* but not *separable* in practical performance and experience.

<sup>135</sup> Deleuze, *Bergsonism*, 22–24.

<sup>136</sup> Gilles Deleuze, *The Logic of Sense*, New ed., Continuum Impacts 10 (Continuum, 2004), 72–73, 186–192.

<sup>137</sup> *Ibid.*, 72.

<sup>138</sup> For recent comparisons between the philosophies of Gilles Deleuze and Michel Serres, see the essays in Bernd Herzogenrath, ed., *Time and History in Deleuze and Serres* (London and New York: Continuum, 2012).

region, in '45, '61 and '75, once a lifetime vintages of supernatural taste and enormous longevity. As though weather and time were intimately connected, enough to make us understand how two words could be one, two meanings – time and weather – cohabiting in a single term, *le temps*. If time flowed like a series of whole numbers, on the left, we would have known long ago that history and reason go hand in hand. But the stochastic mixture of years by which we might read the different vintages of Château d'Yquem over the last hundred years gives us a very different idea of that same history, once again drawing us a blended map.<sup>139</sup>

The left-hand column represents what we have called secular time. It shows a series of regular intervals (years); a kind of time functioning as an independent and neutral standard of measure. The right-hand column, by contrast, represents historical time, and distinguishes between different qualities; the unpredictable, material forces of weather and labour account for the defining characteristics of each year. In other words, each year is not only an empty interval; it also manifests a quality specific to itself. In this way, the two times are distinguished, but not separated. In order to make the register at all useful, the two times must be confused, made to flow together: '1961' was *both* a quantitative measure of secular time *and* a moment manifesting a particular historical quality (a 'good year').

Like Deleuze, Serres is concerned with how the two times are at once contradictory and mutually constitutive – how they make each other possible, so to speak. Their relation is not a zero-sum game between two contestants where either might gain an upper hand or even win, but a reciprocal and complementary relation. Without secular time, there would be no way to discern historical change and transformation, or the speed and direction of development; without historical time, there would be no way to determine secular contemporaneity between different qualities.<sup>140</sup> Describing this temporal paradox, Serres uses images such as 'filtration,' 'translation,' 'mediation,' or 'percolation,' attempting to capture how temporality is composed of both halts *and* movements, static *and* dynamic, or in our terms, secular time *and* historical time.<sup>141</sup>

[Time] passes, and also does not pass. We must bring the word *pass* closer to *passoir*- "sieve." Time doesn't flow; it percolates. This means precisely

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<sup>139</sup> Michel Serres, *The Five Senses: A Philosophy of Mingled Bodies*, trans. Margaret Sankey and Peter Cowley, Athlone Contemporary European Thinkers (London and New York: Continuum, 2008), 159.

<sup>140</sup> '[T]he regularities of the code make the perception of developmental unevenness possible, while the unevenness of the development makes the perceived regularity of the code necessary.' James Chandler, *England in 1819: The Politics of Literary Culture and the Case of Romantic Historicism* (Chicago and London: The University of Chicago Press, 1998), 155; See also Barry Hindess, "The Althusserian Moment and the Concept of Historical Time," *Economy and Society* 36, no. 1 (2007): 1–18.

<sup>141</sup> *Ibid.*, 168.

that it passes and doesn't pass ... in Latin the verb *colare*, the origin of the French word *couler*, "to flow," means precisely "to filter." In a filter one flux passes through, while another does not.<sup>142</sup>

Time percolates, sometimes filtering through and sometimes not ... Here the flow is fortunately obstructed; there it accumulates, fortunately. Two happy situations: tomorrow time will flow because today, somewhere else, it does not; better still, without these conditions, there will be no tomorrow. [T]ime does not flow, it percolates; better still, it flows because it percolates.<sup>143</sup>

Serres describes the postulation of contemporaneity in terms of *secular* time as a 'freezing' of the flow of *historical* time.<sup>144</sup> And yet, it is precisely this 'freezing' that gives historical time its potent force, analogous to how a dam accumulates and so enhances the latent force of a river. In this sense, historical time passes, whereas secular time does not pass. Together, however, they allow for uneven development *and* absolute simultaneity.

This abstract speculation can be connected to the present historical study via Latour's conceptual framework.<sup>145</sup> We have seen that Latour approaches time on the level of material connections in technological networks comprising both human and non-human nodes. Time, on this view, 'is not a general framework but a provisional result of the connection among entities...it is the sorting [of entities] that makes the times, not the times that make the sorting.'<sup>146</sup> Different conceptions of time arise out of different modes of temporal 'sorting' in networks. Following Latour, we could say that networks are modern insofar as their 'sorting' of entities—their mode of temporal organization—provides both a sense that 'contemporary elements' coexist within a single present moment of secular time, while also eliminating elements not belonging to the system by deeming them to belong to some other (past or future) moment.<sup>147</sup>

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<sup>142</sup> Michel Serres and Bruno Latour, *Conversations on Science, Culture, and Time*, ed. Katherine N. Hayles et al., *Studies in Literature and Science* (Ann Arbor: University of Michigan Press, 1990), 58.

<sup>143</sup> Serres, *The Five Senses: A Philosophy of Mingled Bodies*, 179.

<sup>144</sup> Quoted in Stephen Clucas, "Liquid History: Serres and Lucretius," in *Mapping Michel Serres*, ed. Niran Abbas, *Studies in Literature and Science* 17 (Ann Arbor: University of Michigan Press, 2005), 81. While this is a simplified version of Serres' ideas about temporal complexity, the present point about a generous interplay between stability and flux as being between different kinds of time nevertheless resonates with his overall work and approach.

<sup>145</sup> Latour has been one of the main proponents of Serres' philosophy, and he draws heavily on the latter's approach in his own work. See e.g. Bruno Latour, "The Enlightenment Without the Critique: A Word on Michel Serres' Philosophy," in *Contemporary French Philosophy*, ed. A. Phillips Griffiths (Cambridge: Cambridge University Press, 1987), 83–97.

<sup>146</sup> Bruno Latour, *We Have Never Been Modern* (Cambridge, MA: Harvard University Press, 1993), 74, 76.

<sup>147</sup> *Ibid.*, 74–5.



This mode of temporal ‘sorting’ underlies the peculiar modern idea of time as a progressive and irreversible movement. As Latour puts it,

[m]odern time is a succession of inexplicable apparitions... The present is outlined by a series of radical breaks, revolutions, which constitute so many irreversible ratchets that prevent us from ever going backward.<sup>148</sup>

The elements that are being ‘held together’ as contemporaneous appear—by that very act—as a single and synchronous entity, one existing within an empty interval of secular time. Yet precisely because this makes the entity ‘appear on stage,’ so to speak, suddenly and without pretext, the entity itself appears to make materially manifest a *qualitative* distinction between the ‘before’ and ‘after’ of its own appearance, hence making impossible a return to the (perceived) past.

In this way, the networks described by Latour as ‘modern’ mediate a temporal dialectic of the sort described in the above. On the one hand, they imply *secular* time, as seen in the above example of the railway traveller – the single entity of the immutable mobile travelling within an abstract time independent of change. Yet the example equally shows that something always pays for this apparently free passage. Even though immutable mobiles appear to be detached from processes of change, they in fact depend on the mobilization of precisely such processes – the laborious transformations performed by the entire network of which they form a part. In their very achievement of *secular* time, then, the same networks imply, and even *enable*, a conception of *historical* time. Achieving secular immutability requires the constant mobilization of—and battling against—historical forces; equally, secular contemporaneity enables the flow of historical time.

This temporal paradox will be examined in the second part of the thesis, as explored in three Victorian human-technological networks. In chapter 4, we will see how the Victorian railway network not only represented an increasing investment of secular time in widespread collective practices of railway travelling; the network itself was equally a material manifestation of the ‘modern age,’ the very embodiment of an irreversible and qualitative break between historical eras of different characteristic qualities. The active investment in the network of secular time in the form of temporal coordination enabled its material expansion and hence impact as a manifestation of

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<sup>148</sup> Ibid., 67–9, 72–6.

historical difference, while this continuous expansion further made secular coordination increasingly necessary. In chapter 5, we will see how news networks comprising everything from journalists to telegraph wires gave newspaper readers direct access to current events through representing these on pages embodying empty secular intervals. This immediate access was premised on the present moment—embodied in the page itself—being fully abstract and independent of the still transforming events being reported. As in the case of the railway network, however, the constitution of a secular interval of this sort was itself not only an achievement qualitatively characteristic of the historical present, but also a condition for the further transformation and development of the news network itself. Finally, in chapter 6, we will see the paradox exemplified in the case of Bank of England notes: their successful embodiment of the gold standard's abstract immutability was achieved precisely through mobilizing energies characteristic of the historical 'age' thus performing an irreversible process of qualitative transformation (from 'rags to riches,' as a common idiom described the turning of linen rags into valuable paper). In their modes of organization—which included, as we will see, careful manufacturing of immutable mobiles—all these material networks mediated social imaginaries comprising both secular and historical time conceptions.

### OVERVIEW OF THESIS

The thesis progresses in two parts. The first of these (comprising the present chapter and chapters 2 and 3) provides the conceptual coordinates for the case studies in the second (chapters 4, 5, and 6). Chapter 2 seeks to demonstrate that the temporal dialectic described above underpinned the so-called 'civilizational perspective,' which provided the rationale for the Victorians' extensive temporal mapping of imperial and domestic subjects. Here, historical time allowed for qualitative differentiation, whereas secular time allowed for quantitative differentiation. Only when the two were articulated together did it become possible to position entities—be it nations, artefacts, individuals, or ideas—on a 'scale of civilization,' and compare their relative development.

The distinction between secular and historical time calls for a new and more rigorous understanding of secular time as a concept. Chapter 3 provides a new way into questions of secular time in Victorian England by way of a conceptual genealogy of secular time as an abstract, infinite, and isochronic time independent of motion. This

concept was articulated by fourteenth-century scholastics as a response to problems caused by peculiar creatures who moved through time without changing—angels, the original immutable mobiles. The second part of chapter 3 traces local mediations of secular time within a multiplex of other times in the sixteenth, seventeenth and eighteenth centuries, preparing the ground for the three Victorian case studies in the second part of the thesis: railways, newspapers, and Bank of England notes.

Part two of the thesis (chapters 4-6) examines the temporal dimension of three selected Victorian social imaginaries, highlighting how this was characterized by a joint articulation of historical and secular time, and pointing out some of the paradoxes spurred by their internal contradiction. Each chapter describes some of the ways in which extensive material and technological networks mediated (national and increasingly global) simultaneity in terms of *secular* time, while also manifesting the specific *historical* quality of the present age. As part of this, the chapters also describe various attempts to manufacture and secure the properties of specific immutable mobiles: railway passengers whose movement through national topoi was coordinated by timetables; news items transmitted within layers of protective rubber and translated onto newspaper pages constituting uniform, successive ‘presents;’ and Bank of England paper notes translating the stability of the abstract gold standard into the material networks that mediated the ‘economy.’ All of these required the mobilization of mediators in networks of unprecedented extension; all became associated with embodied practices in which large strata of the population participated; and all carried implicit notions of time as at once isochronic and independent of motion, *and* progressive, auto-generative, and qualitatively changing.

These case studies are all concerned with the dynamics inherent to the networks in question. Obviously, the use individuals might make of trains, newspapers, and money was never completely captured by the structure itself. This raises a whole range of questions far beyond the scope of the present analysis – some of which will be returned to in the concluding chapter. However, since such behaviour is often cast as expressions of something ‘irreducibly human’ emerging in ‘reaction’ to a monolithic and one-dimensional modernity, it is worth pointing out that the present argument seeks to locate the contradiction in the temporal structure of modernity itself. The temporal logic of Victorian modernity was not a one-dimensional one,

which thus spurred various ‘subjective’ reactions; rather, the structure itself was contradictory and dialectical—in a sense, the structure resisted itself.

Finally, it should be noted that the present thesis is a work of synthesis. It draws extensively on secondary and (printed) primary sources, as well as the work of historians, sociologists and philosophers. Its claim to originality lies in how it seeks to combine (at times quite eclectically) a wide range of current scholarship with a particular argument regarding Taylor’s secularization thesis, the ‘material turn’ in histories of the ‘social,’ and the existing historiography of secularization. It brings to Taylor’s account a sorely needed empirical complement, focussing on material technologies and collective practices. To the historiographies associated with the ‘material turn’ it brings not only a concern with the meaning of secularization, but also a more rigorous analysis of the temporal schema that grant a sense of legitimacy and ‘given-ness’ to the material networks and mundane practices mediating the ‘nation,’ the ‘public sphere,’ and the ‘economy.’ In regard to the historiography of secularization, the thesis makes two—and perhaps apparently contradictory—points. First, it argues that historians may again speak of Victorian secularization, in the specific sense that a process of active investment and embedding of secular time on the level of the social imaginary did indeed take place during this period. At the same time, however, the thesis aligns itself with the increasingly ‘postsecular’ stance of recent historiography in demonstrating that—contrary to Taylor’s thesis—even on the level of the social imaginary, secular time was in no way the *exclusive* conception of time. In brief, the Victorian social imaginary was at once secular and not secular – all the way down.

## 2. AN AGE OF AGES

### The temporal logic of civilization

In January 1831, the *Examiner* published an essay by John Stuart Mill titled ‘The Spirit of the Age,’ in which the young author opened with the following observation:

The “spirit of the age” is in some measure a novel expression. I do not believe that it is to be met with in any work exceeding fifty years in antiquity. The idea of comparing one’s own age with former ages, or with our notion of those which are yet to come, had occurred to philosophers; but it never before was itself the dominant idea of any age. It is an idea essentially belonging to an age of change. Before men begin to think much and long on the peculiarities of their own times, they must have begun to think that those times are, or are destined to be, distinguished in a very remarkable manner from the times which preceded them. Mankind are then divided, into those who are still what they were, and those who have changed: into the men of the present age, and the men of the past. To the former, the spirit of the age is a subject of exultation; to the latter, of terror; to both, of eager and anxious interest... The present times possess this character.<sup>1</sup>

Mill was quite prescient: ‘age of factories,’ ‘age of reform,’ ‘age of steam,’ ‘age of progress,’ ‘age of reading,’ ‘age of doubt,’ ‘age of empire,’ ‘age of invention,’ ‘age of destruction,’ together with hundreds of other ‘ages,’ proliferated in the pages of novels, pamphlets, books, newspapers and periodicals from roughly the 1830s onwards. ‘Were we required to characterise this age of ours by any single epithet, we should be tempted to call it ... the Mechanical Age. It is the Age of Machinery,’ proclaimed Mill’s then friend Thomas Carlyle, in his *Signs of the Times* (1829).<sup>2</sup> Unitarian minister Robert Vaughan famously stated that ‘[o]ur age is pre-eminently the age of great cities,’<sup>3</sup> while journal editor and Liberal MP John Morley lamented how ‘our age of science is also the age of deepening superstition and reviving

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<sup>1</sup> John Stuart Mill, *The Spirit of the Age* (Chicago: University of Chicago Press, 1942), 1.

<sup>2</sup> Thomas Carlyle, “Signs of the Times,” in *The Works of Thomas Carlyle*, vol. 2, Cambridge Library Collection (Cambridge et al.: Cambridge University Press, 2010), 59.

<sup>3</sup> Robert Vaughan, *The Age of Great Cities, Or, Modern Society Viewed in Its Relation to Intelligence, Morals, and Religion*. (London: Jackson and Walford, 1843), 1.

sacerdotalism.<sup>4</sup> For the then editor of *The Economist* Walter Bagehot, such differences of opinion made the present age an ‘age of discussion.’<sup>5</sup>

The Victorian preoccupation with comparing one’s own age to former ages is well accounted for by historians, and was also commented upon at the time. Charles Dickens famously satirized the tendency in the opening paragraph of *A Tale of Two Cities*, published between 1858 and 59:

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way – in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.<sup>6</sup>

Similarly, in a mockery of the proverbial division of history into distinct ‘Ages of Man,’ an 1846 editorial in the London weekly *The Penny Satirist* declared that

[t]his may be called the *age of everything*. It is the age of iron, for there never was so much iron employed as now. It is the age of brass, as may be seen by the cheek of almost every man you look at. It is the age of gold, as may be proved by the hundred of millions that are spent, paid, or promised to be paid, by railway kings and railway committee-men, directors and share-holders. And it is the age of silver also, of course, as, so long as you have gold, you never can be much at a loss for silver change. It seems to be a collection of all the ages in one; a universal age that embraces all other ages, puts them into the mail-bag, and sends them over the world by steam.<sup>7</sup>

Victorians, then, saw themselves as living in an age qualitatively different from any other. Not only was such a sentiment widespread; it was in fact a given. The task was *deciding on* what were the characteristic features of the age—the specific qualities that set the present apart from the past and even, if only speculatively, the future—not *whether* such a decision was at all conceivable.

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<sup>4</sup> John Morley, *The Struggle for National Education*, 2nd ed. (London: Chapman and Hall, 1873), 63; Quoted in Gerald Parsons, *Religion in Victorian Britain: Interpretations*, vol. IV (Manchester; New York: Manchester University Press, 1998), 191.

<sup>5</sup> Walter Bagehot, *Physics and Politics: Or, Thoughts on the Application of the Principles of “Natural Selection” and “Inheritance” to Political Society* (London: Henry S. King & Co, 1872), 156.

<sup>6</sup> Charles Dickens, *A Tale of Two Cities* (London: Chapman & Hall, Ltd., 1868).

<sup>7</sup> Anon., “The Age of Reporters,” *The Penny Satirist and London Pioneer*, April 11, 1846. Emphasis mine.

So what, if anything, was characteristic of the Victorian ‘age’? As we have seen, Charles Taylor argues that the nineteenth century saw a fundamental mutation in the social imaginary, namely a shift from an *ancien regime* (AR) type to a *mobilization* (M) type.<sup>8</sup> In the former, as described in the previous chapter, collective human action is experienced on a background that includes cosmic hierarchies and various forms of transcendence and higher times; in the latter, the background is one of absolute immanence, human autonomy, and a ‘purely secular’ temporal dimension. However, Taylor is careful to note that even after the turn of the twentieth century Britain saw

important strands of deference, and hierarchy, and a reverence for the ancient constitution . . . : where there were still parishes of the Church of England, where community impregnated with folk religion was alive until quite recently...<sup>9</sup>

Indeed, he says,

it is probable that at the level of the social imaginary, many Britons lived in these last centuries in a *hybrid world*. Social forms, like the public sphere, the market economy, which made sense only on the horizontal model [of the M type], occupied a growing place in their world. Their political institutions, with successive widenings of the franchise, progressively came to meet the demands of popular sovereignty [again of the M type]. And yet the polity itself remained a monarchy, with hierarchical elements, and with much ceremonial invocation of vertical modes of grounding, a church-blessed monarchy rooted in a time out of mind.<sup>10</sup>

But in Britain, as in other Western nations, the shift nevertheless occurred, if only on a subterranean and almost imperceptible level.

The point of distinction [between the two types] is not to put whole societies and/or whole time-slices into one or another slot, but to show how the weighting of AR and M forms in each gave a different shape and curvature to a movement which at a very general level was common to all: the evacuation of AR forms in favour of M ones...<sup>11</sup>

over time, the balance [between AR and M forms] shifts... The British social imaginary has become predominantly horizontal [it has no reference to action-transcendent grounding]... It is this slow slide which is not

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<sup>8</sup> See chapter 1 above, and Charles Taylor, *A Secular Age*, 423–72.

<sup>9</sup> *Ibid.*, 461–2.

<sup>10</sup> *Ibid.*, 393. Emphasis mine.

<sup>11</sup> *Ibid.*, 461–2. Emphasis mine.

necessarily noticeable as it happens, but whose general direction appears with hindsight as inevitable...<sup>12</sup>

Taylor is not alone in noticing continuities between the Victorian period and its preceding and succeeding decades (and centuries). Practices and institutions that Taylor associates with ‘higher times’ continued to have strong bearings on Victorian life and discourse. The influence of landed elites, for example, remained strong throughout the century;<sup>13</sup> likewise the paternalistic ethos of governmental and educational practices.<sup>14</sup> This has led some historians to abandon the idea of a distinct ‘Victorian age’ altogether. Richard Price, for instance, has argued that historians have too easily accepted as a given something that was in fact a peculiar Victorian prejudice: namely, that their particular period marked a decisive historical and qualitative break between the ‘old’ and the ‘new.’ In response, Price has sought to rectify his colleagues’ mistake by repositioning periodical markers, making the Victorian period the ‘tail’ of a longer historical period stretching back to the late seventeenth century.<sup>15</sup>

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<sup>12</sup> Ibid., 393–4.

<sup>13</sup> F.M.L. Thompson, “English Landed Society in the Twentieth Century I: Property: Collapse and Survival,” *Transactions of the Royal Historical Society* 40 (1990): 1–24; F.M.L. Thompson, “English Landed Society in the Twentieth Century II: New Poor and New Rich,” *Transactions of the Royal Historical Society* 1 (1991): 1–20; F.M.L. Thompson, “English Landed Society in the Twentieth Century III: Self-Help and Outdoor Relief,” *Transactions of the Royal Historical Society* 2 (1992): 1–23; F.M.L. Thompson, “English Landed Society in the Twentieth Century IV: Prestige Without Power?,” *Transactions of the Royal Historical Society* 3 (1993): 1–22; Antony Taylor, *Lords of Misrule: Hostility to Aristocracy in Late Nineteenth- and Early Twentieth-Century Britain* (Basingstoke: Palgrave MacMillan, 2004).

<sup>14</sup> Marcel Gauchet describes how the institution of apprenticeship refers to what Taylor calls ‘higher times’ or ‘action-transcendent grounding’: ‘A society legitimated by the past tended to remain a society of apprenticeship. Entering into life meant fitting into the categories of an inviolable order, repeating in every detail one’s predecessor’s work. There was no need for special preparation, only the need for a gradual and controlled integration into preordained roles, a regulated incorporation of codes, tasks, and practices by identifying with the fully fledged practitioner... If [, however,] we wish to grasp what is specific to modern education we must read it in terms of investment in the future... [Y]outh has become the object of a social emblematic cult, which is not concerned with its immediate usefulness, but with accumulating youth’s potential, of storing up the power of futurity.’ Marcel Gauchet, *The Disenchantment of the World*, 179–80. Emphasis in original. On apprenticeship in nineteenth- and early twentieth-century England, see e.g. Bernhard Elbaum, “The Persistence of Apprenticeship in Britain and Its Decline in the United States,” in *Industrial Training and Technological Innovation: a Comparative and Historical Study*, ed. Howard F. Gospel (London: Routledge, 1991), 158–173; Charles More, *Skill and the English Working Class, 1870–1914*, ed. J.F.C. Harrison and Stephen Yeo, Croom Helm Social History Series (London: Croom Helm, 1980); Howard F. Gospel and Reiko Okayama, “Industrial Training in Britain and Japan: An Overview,” in *Industrial Training and Technological Innovation: A Comparative and Historical Study*, ed. Howard F. Gospel (London: Routledge, 1991), 10–29. For more on the implicit relation between apprenticeship and transcendence pointed out by Gauchet, see e.g. R.N. Swanson, *Religion and Devotion in Europe, C. 1215 - C. 1515*, Cambridge Medieval Textbooks (Cambridge: Cambridge University Press, 1995), 116–22; S.R. Epstein, “Craft Guilds, Apprenticeship, and Technological Change in Pre-Industrial Europe,” in *Guilds, Innovation, and the European Economy 1400–1800*, ed. S.R. Epstein and Maarten Prak (Cambridge: Cambridge University Press, 2008), 52–80; John Bossy, *Christianity in the West* (Oxford and New York: Oxford University Press, 1985), 57–63.

<sup>15</sup> Richard Price, *British Society 1680–1880* (Cambridge: Cambridge University Press, 1999); Richard Price, “Does the Notion of Victorian England Make Sense?,” in *Cities, Class, and Communication: Essays in Honour of Ada Briggs*, ed. Derek Fraser (New York, London, Toronto, Sydney, Tokyo, Singapore: Harvester Wheatsheaf, 1990),



By contrast, the present argument sees such re-periodization as missing the point: in fact, this ‘solution’ only repeats the mistake that Price is attempting to rectify. The peculiar Victorian assumption of living in an ‘age of transition’ and general preoccupation with historical periodization—that is, making qualitative distinctions between past, present, and future ‘ages’—is precisely what is at stake. The Victorians saw the establishment of a range of new sciences, ‘social’ as well as ‘natural’—uniformitarian geology, nebular astronomy, evolutionary biology, sociology, anthropology, and of course history—all fundamentally occupied with questions of time, change, and the marking of ‘ages’ and ‘eras,’ and all self-consciously seen as distinctly new and characteristic of the present ‘age’ itself, marking it *qualitatively* from the past.<sup>16</sup> As the examples of the various ‘ages’ noted above signal, there was simply no limit to how many entities or ideas which could be taken to represent the characteristic feature of the present age, and hence an embodiment of a qualitative break from the past. Contra Price, it is this kind of Victorian periodization—or more specifically the temporal logic on which it becomes conceivable—that demands our attention.

Equally, the shift from AR to M forms was arguably more perceptible than Taylor assumes. During the first half of the century, some characteristic features of the AR form, such as the ‘Great Chain of Being,’ gradually disappeared almost entirely from common usage.<sup>17</sup> As J.C.D. Clark has demonstrated, such understandings of cosmic (natural) hierarchy and authority remained dominant throughout the eighteenth century.<sup>18</sup> From around the 1830s, however, these were gradually replaced by mechanistic or organic analogies from the natural sciences where society was seen as an effect of general laws of efficient causality—that is, cause and effect understood as following one another sequentially—and historically progressive development. By this time, political rhetoric centred on the idea of making an historical ‘break’ from the former order (lit. *ancien regime*), and inaugurating a qualitatively ‘new’ era. As Geoffrey Crossick has put it, ‘what was lost by the nineteenth century was the

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152–171; Richard Price, “Historiography, Narrative, and the Nineteenth Century,” *The Journal of British Studies* 35, no. 2 (1996): 220–256.

<sup>16</sup> See also James Chandler, *England in 1819*.

<sup>17</sup> The notion of a ‘Great Chain of Being’ had already undergone a process of ‘temporalization’ during the eighteenth century. See Arthur O. Lovejoy, *The Great Chain of Being*, New ed. (Boston: Harvard University Press, 1990); William F. Bynum, “The Great Chain of Being After Forty Years: An Appraisal,” *History of Science* 13 (1975): 1–28.

<sup>18</sup> J.C.D. Clark, *English Society, 1660–1832*.

metaphorical imagery (such as the Great Chain of Being) or the complex interacting hierarchy of older perceptions of the social system and of older languages of social description.<sup>19</sup>

Similarly, the ‘ancient constitution’ remained a dominant matrix for political debates at least until the 1880s, in the sense that, as James Vernon has put it, ‘competing political groups sought to construct their constituencies of support by appropriating and using the “shared” language of constitutionalism in different ways.’<sup>20</sup> But precisely because the political debate itself assumed the form of *mobilization*, this was no longer the ‘ancient constitution’ that society had received from a mythical ‘time out of mind,’ to replicate in the present.<sup>21</sup> As H.S. Jones notes,

Whig historiography identified a point (or points) in history when English nationhood could be said to have been forged and English liberties constituted. Their origins were no longer lost in the mists of time, and Whig history thus severed any connection with the ancient constitutionalists.<sup>22</sup>

In this respect, the ‘ancient constitution’ was historicised, and seen as evolving through time: its origins were no longer located in a mythical or transcendent realm beyond present, immanent, collective action. Put another way, this was no longer the common law ancient constitution, ‘unwritten and immemorial,’ of the sixteenth and seventeenth centuries, or even the accumulated wisdom of generations, as invoked by Edmund Burke during the 1790s, in his denunciation of the French Revolution.<sup>23</sup> Rather, this was a constitution which had evolved through history; which had been altered and improved upon innumerable times; and which could legitimately, if it was deemed necessary, be improved upon again.<sup>24</sup> In this case, the continuity with the eighteenth century was only apparent. Old terms were recast in the mould of progressive development and took on new meanings.

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<sup>19</sup> G. Crossick, “From Gentlemen to the Residuum: Languages of Social Description in Victorian Britain,” in *Language, History and Class*, ed. Penelope J. Corfield (Oxford: Basil Blackwell Ltd, 1991), 150–178.

<sup>20</sup> James Vernon, *Politics and the People: A Study in English Political Culture, 1815-1867* (Cambridge: Cambridge University Press, 1993), 296.

<sup>21</sup> See essays in James Vernon, ed., *Re-reading the Constitution: New Narratives in the Political History of England’s Long Nineteenth Century* (Cambridge: Cambridge University Press, 1996).

<sup>22</sup> H.S. Jones, *Victorian Political Thought*, British History in Perspective (Basingstoke: MacMillan Press Ltd, 2000), 53.

<sup>23</sup> John Greville Agard Pocock, *The Ancient Constitution and the Feudal Law: A Study of English Historical Thought in the Seventeenth Century* (Cambridge: Cambridge University Press, 1975); J.G.A. Pocock, “Burke and the Ancient Constitution: A Problem in the History of Ideas,” *The Historical Journal* 3, no. 2 (1960): 125–143.

<sup>24</sup> See J.W. Burrow, *A Liberal Descent: Victorian Historians and the English Past* (Cambridge: Cambridge University Press, 1981).

This chapter presents a general survey of a few dominant discourses in which the Victorians sought to define who they were and their place in the world, focussing how these were underpinned by a specific—and dialectical—temporal logic. Whilst it follows Taylor’s suggestion that the nineteenth century saw a fundamental shift away from the ‘higher times’ associated with pre-modernity, the chapter nevertheless rejects Taylor’s assertion that this shift entailed the assumption of a one-dimensional secular conception of time. More specifically, the argument is that the widespread and peculiar Victorian tendency of ordering societies, objects, persons, and ideas (and everything else) according to a ‘scale of civilization,’ assigning each to different historical ‘stages’ of progressive development, was premised on a temporal dialectic, or a joint-yet-contradictory articulation of *two* kinds of time: a secular time independent of particular qualities, and an historical time of constant qualitative change, whose joint articulation made possible the notion of successive ‘ages’ marked by distinct characteristic features.

#### THE TEMPORAL LOGIC OF HISTORICAL PERIODIZATION

Reinhart Koselleck has argued that it was only towards the end of the eighteenth century that the term ‘new time’ (*Neuzeit*) acquired the sense of a claim about the quality of time itself, so that historical ‘ages’ were not only differentiated chronologically, but *historically*, in terms of the innate changing qualities of time itself.<sup>25</sup>

Time is no longer simply the medium in which all histories take place; it gains a historical quality. Consequently, history no longer occurs in, but through, time. Time becomes a dynamic and historical force in its own right. Presupposed by this formulation of experience is a concept of history which is likewise new: the collective singular form of *Geschichte* [History], which since around 1780 can be conceived as history in and for itself in the absence of an associated subject or object.<sup>26</sup>

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<sup>25</sup> Reinhart Koselleck, *The Practice of Conceptual History: Timing History, Spacing Concepts*, ed. Mieke Bal et al., Cultural Memory in the Present (Stanford, CA: Stanford University Press, 2002); Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time*, trans. Keith Tribe (New York: Columbia University Press, 2004). A good summary of Koselleck’s conceptual framework can be found in John Zammito, “Koselleck’s Philosophy of Historical Time(s) and the Practice of History,” *History and Theory* 43, no. 1 (2004): 124–135. See also the section on Koselleck in Nils Åkerström Andersen, *Discursive Analytical Strategies: Understanding Foucault, Koselleck, Laclau, Luhmann* (Bristol: The Policy Press, 2003).

<sup>26</sup> Koselleck, *Futures Past: On the Semantics of Historical Time*, 236. See also J.G.A. Pocock, “Political Thought in the English-speaking Atlantic, 1760-1790: (ii) Empire, Revolution and An End of Early Modernity,” in *The Varieties of British Political Thought, 1500-1800*, ed. J. G. A. Pocock, Gordon J. Schochet, and Lois Schwoerer, New ed. (Cambridge and New York: Cambridge University Press, 1996), 283–317. Following Koselleck, Pocock argues that the 1830s saw the end of a ‘*Sattelzeit*’, an era of disruption in conceptions of time (amongst other

Historical time thus came to be conceived as capable of change and of assuming ever-new qualities. As Carlyle's fictional character Teufelsdröch declares in *Sartor Resartus* (1833-34), '[o]ur whole terrestrial being is based on Time, and built of Time; it is wholly a Movement, a Time-Impulse; Time is the author of it, the material of it.'<sup>27</sup> Here history and time are one, a movement, a self-generating and self-propelling current or force: the very material of qualitative change and flux.

In the decades around 1800, Koselleck goes on, terms such as 'revolution,' 'progress,' and 'development' all became associated with this new way of understanding historical time. According to Keith Baker, French reformers 'gave a profoundly new meaning to the ancient notion of revolution.' Earlier, this term had denoted sudden unexpected changes in material or political structures, or otherwise a *return* to the fundamental laws of a former government (such as an 'ancient constitution'). From the late eighteenth century, by contrast, 'revolution' came to denote a 'radical break with the past achieved by the conscious will of human actors.'<sup>28</sup> According to Koselleck, the gradual erosion of Christian eschatology and the rapid expansion of the known world during the sixteenth and seventeenth centuries opened up a *sensed* possibility of living in an epoch that was in some respect *qualitatively* different from the preceding one.<sup>29</sup> A revolution was now a 'leaving-behind' of the past and entering into an unprecedented and genuinely *new* future.

This had a number of paradoxical consequences in the way 'History'—as it was often written—was imagined, both in terms of future, past, and present. In terms of the *future*, the historically *new* became conceivable, as opposed to the chronological *next*. The present was qualitatively different from the past; there *was* indeed something new under the sun. Hence, when describing what he saw in America, French aristocrat and historian Alexis de Tocqueville—who would later travel in England as well—felt that the past could no longer help him to predict the future. In his two-volume study *Democracy in America* (1835/1840), which was read among British elites, he wrote: 'I go back from age to age up to the remotest antiquity, but I find no parallel to what is occurring before my eyes ... as the past has ceased to throw its light upon the

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things) which began in the mid-eighteenth century, and intensified during the Revolutionary period and the Napoleonic Wars. Thanks to Pete Mills for pointing out this reference.

<sup>27</sup> Thomas Carlyle, *Sartor Resartus*, Everyman's Library (London: J.M. Dent & Sons Ltd, 1908), 98.

<sup>28</sup> Keith Michael Baker, *Inventing the French Revolution: Essays on French Political Culture in the Eighteenth Century*, ed. Wolf Lepenies et al., Ideas in Context (Cambridge: Cambridge University Press, 1990), 203–23.

<sup>29</sup> Koselleck, *The Practice of Conceptual History: Timing History, Spacing Concepts*, 128.

future, the mind of man wanders in obscurity.<sup>30</sup> In other words, the future was *open*, as Koselleck puts it, truly unprecedented, and full of unexpected and unpredictable turns. By the same token, the past, since qualitatively different, had to be left behind, having little or no relevance in a future of an essentially *new* quality. The qualitative difference between past and present thus created a sort of distance from the past; the past became a static ‘other’ and could be taken as the ‘object’ of detached scientific study. Its remnants could be clearly marked out, and disposed of to make room for the future. Yet, since the difference between present and past was qualitative—that is, since it was a difference in kind, not degree—the gap between the two ultimately could not be bridged; the past was at once static and available for study, and a truly foreign and inaccessible country.

The Victorians experienced their own present ‘age’ in just this fashion: as a threshold between an old world being outgrown or left behind, and an unprecedented future, at once promising and dangerous. ‘The present age is an age of transition,’ wrote Mill, in the same article quoted above. ‘Mankind has outgrown old institutions and old doctrines, and have not yet acquired new ones.’<sup>31</sup> This ‘transitional’ quality of the present was as evident to the generation living through the 1880s as it had been to those of the early 1830s.<sup>32</sup> The future never fully arrived; the past never entirely went away. Indeed, the identity of the present was precisely that it was not fixed – it was a *permanent transition*.<sup>33</sup> The Victorians lived, as one historian has put it, forever in the ‘meantime.’<sup>34</sup>

To borrow from Hans Blumenberg, Victorian modernity, then, might be characterised as, ‘an epoch for the concept of epochs,’ in the sense that it ‘understood itself as an epoch and, in so doing, simultaneously created the other epochs.’<sup>35</sup> Different times

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<sup>30</sup> Alexis Tocqueville, *Democracy in America*, trans. Henry Reeve, Wordsworth Classics in World Literature (London: Wordsworth Editions Limited, 1998), 371.

<sup>31</sup> Mill, *The Spirit of the Age*, 6.

<sup>32</sup> See discussion in Walter E. Houghton, *The Victorian Frame of Mind, 1830-70* (London: Oxford University Press, 1957), 1–23.

<sup>33</sup> Similar dynamics have been explored in recent studies of the modern mass phenomena sometimes referred to as ‘political religions.’ According to Roger Griffin, the understanding of modernity as ‘perpetual crisis’ or ‘permanent transition’ provides a helpful lens through which to read a wide array of both artistic ‘epiphanic’ and political ‘programmatically’ modernisms attempting to inaugurate a ‘New Age’ or to raise a ‘New Man’ from the ashes of a decadent civilization. Roger Griffin, *Modernism and Fascism: The Sense of a Beginning Under Hitler and Mussolini* (Basingstoke: Palgrave MacMillan, 2007); Roger Griffin, ed., *Fascism, Totalitarianism and Political Religion, Totalitarian Movements and Political Religions* (Abingdon: Routledge, 2005).

<sup>34</sup> Houghton, *The Victorian Frame of Mind, 1830-70*, 10.

<sup>35</sup> Hans Blumenberg, *The Legitimacy of the Modern Age*, trans. Robert M. Wallace, *Studies in Contemporary German Social Thought 5* (Cambridge, MA.; London: The MIT Press, 1983), 116, 461.

and ages could now be deemed just that: qualitatively different, characterized by distinct qualities. Indeed, the awareness of and reflection on historical development itself could be construed as a defining feature of the present age. This view emerged in the 1830s, and remained prevalent until at least the end of the century.<sup>36</sup> As Vinay Lal puts it, both James Mill, writing his *History of British India* between 1806 and 1818, and Thomas Macaulay, penning his *Minute on Indian Education* in 1835, were convinced that ‘as Hindus had failed to produce historical works, they were still barbarians’ belonging to a ‘rude age.’<sup>37</sup> In 1872, Walter Bagehot put it this way:

Before history began there must have been in the nation that writes it much progress; else there could have been no history. It is a great advance in civilization to be able to describe the common facts of life, and perhaps, if we were to examine it, we should find that it was at least an equal advance to wish to describe them. But very few races have made this step of progress; very few have been capable of even the meanest sort of history; and as for writing such a history as that of Thucydides, most nations could as soon have constructed a planet.<sup>38</sup>

Bagehot asserted (and was by no means alone in doing so) that the ability, or even the very wish, to discern historical progress arose only as a result of that very historical progress. Put another way, nations exhibiting little written history must therefore have experienced little historical progress; they had not undergone the historical progress necessary to attain the ‘historical consciousness’ required for writing history. On this paradoxical logic ‘historical consciousness’ could be cast as a defining feature of the present historical moment; the distinguishing quality of the present was itself the qualitative difference between it and its past.<sup>39</sup>

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<sup>36</sup> See the discussion in the chapter ‘The History of Ahistoricity’ in Vinay Lal, *The History of History: Politics and Scholarship in Modern India* (Oxford et al.: Oxford University Press, 2005), 27–78.

<sup>37</sup> *Ibid.*, 32.

<sup>38</sup> Bagehot, *Physics and Politics*, 212.

<sup>39</sup> According to Hegel’s argument in the *Philosophy of Right* (published 1821), the reflection on history is itself an historical event. Since its material for thought is always a history that lies behind itself, it necessarily always succeeds, and therefore surpasses, the historical periods it perceives. ‘*Philosophy in any case always comes too late to give [instruction on what the world ought to be]. As the thought of the world, it appears only when actuality is already there cut and dried after its process of formation has been completed ... The owl of Minerva spreads its wings only with the falling of dusk.*’ In other words, historical consciousness always and inevitably stands at the very pinnacle of historical development, as that which would always come ‘after the fact,’ the ‘ultimate result of history.’ If a group or individual did not manifest (or could be accused of not manifesting) this ability, then by implication this group or individual did not belong at the forefront of historical development. Georg Wilhelm Friedrich Hegel, *The Philosophy of Right*, trans. T.M. Knox (Oxford: Oxford University Press, 1967), 13; Georg Wilhelm Friedrich Hegel, *The Philosophy of History*, trans. J. Sibrer (New York: Haven Publications Inc, 1956), 10. The claim that historical consciousness is the distinguishing historical feature of modernity opens a Pandora’s box of paradoxical implications. There is, as some scholars have shown, a strange ‘doubling’ occurring in the work of Koselleck and his interlocutors in that they seem to already presume the kind of historical qualitative break that they are historicising—thereby engaging in a specific ‘politics of time’ themselves. For a critique of Koselleck’s

But how, precisely, amidst a proliferation of ages and an intrinsically changeable present, did the Victorians periodize themselves and others? What was the temporal logic underpinning this practice? A brief passage from James Mill's three-volume work *History of India* (1817/18)—a work recognized by post-colonial scholarship as central to these emerging perspectives<sup>40</sup>—might serve as an example of how this temporal logic comprised *two* kinds of time – one independent of all qualities, the other itself manifesting changing qualities. Here is James Mill, describing his own methodology:

It is not easy to describe the different characteristics of the different stages of social progress. It is not from one feature, or from two, that a just conclusion can be drawn. It sometimes happens that nations resemble which are placed at stages considerably remote. It is from a *joint view* of all the great circumstances taken together, that their progress can be ascertained; and it is from an *accurate comparison*, grounded on these general views, that a *scale of civilization* can be formed, on which the relative position of nations may be accurately marked.<sup>41</sup>

On the one hand, then, we have a synchronic comparison—a ‘joint view,’ as Mill puts it. All the characteristic features of a nation must be taken into view *simultaneously*, in a single instant. This kind of simultaneity speaks of what we have called *secular* time: a time representable as a uniform continuum infinitely divisible into regular intervals. All the observed characteristics are here taken to belong to the same present moment in the sense that they are enveloped within the same empty interval of secular time. The interval itself is independent of the qualities assembled within it – the qualities embodied in the objects, events, persons, or ideas under scrutiny. In terms of secular time, then, everything assembled within the present interval is co-present, *contemporary*, literally ‘of the same time.’

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thesis along these lines, see Kathleen Davis, *Periodization and Sovereignty: How Ideas of Feudalism and Secularization Govern the Politics of Time* (Philadelphia: University of Pennsylvania Press, 2008); Anders Schinkel, “Imagination as a Category of History: An Essay Concerning Koselleck’s Concepts of *Erfahrungsraum* and *Ertwartungshorizont*,” *History and Theory* 44, no. 1 (2005): 42–54. Similar accusations could be levelled at the present argument. However, rather than attempt to deny, escape, or even resolve the evident circularity or ‘short-circuit,’ for the present purposes it must suffice to acknowledge that in uncovering the temporal logic underpinning historical periodization itself—or, put another way, historicizing the practice of historicizing—one is touching what Michel de Certeau called the ‘vibrating limits’ of what is thinkable within the framework of the historical discipline itself. Michel de Certeau, *The Writing of History*, trans. Tom Conley (New York: Columbia University Press, 1988), 38.

<sup>40</sup> See e.g. Javed Majeed, *Ungoverned Imaginings: James Mill’s “The History of British India” and Orientalism*, Oxford English Monographs (Oxford: Clarendon Press, 1992).

<sup>41</sup> James Mill, *The History of British India*, vol. 1 (London: Baldwin, Cradock, and Joy, 1817), 431. Emphasis mine.

On the other hand, Mill describes a diachronic ordering of the same observed phenomena on a ‘scale of civilization.’ In terms of secular time, as we have seen, all the examined features belong to the same present moment. In terms of what we have called *historical* time, by contrast, the present being observed exhibits a distinct quality, a particular historical character – and so does the historical present of the observer, Mill himself. Hence, features manifesting (historical) qualities that differ from Mill’s own present (that particular historical quality manifest in his own present England, for instance), cannot ultimately belong to the same historical present. Put another way, if the features being observed display differing qualities, then this signals that different historical presents are manifested; the observable features that do not correspond to the features Mill associates with his ‘own’ present, must therefore manifest *other* historical presents. And since they manifest other *historical* presents, they must also be relocated to other *secular* intervals – distributed across the secular continuum, as it were. Put simply, what could initially be compared within the same empty interval can now be placed in chronological order. The result is a representation of progressive development of different historical qualities; a linear sequence of historical manifestations on a ‘scale of civilization.’

We see then that Mill’s passage conceives of time in a contradictory way—or rather, as being of two kinds at once—making for a temporal dialectic. Each present moment is conceived of *both* as a secular interval independent of qualities *and* as a historical present manifesting specific qualities. Only thus can the features be compared—be they objects, persons, nations, or ideas—and then distributed across a single developmental scale according to their relative state of ‘progress.’ Drawing on the work of Koselleck, philosopher Peter Osborne has explored further the various articulations of this temporal logic, noting its role in both domestic governance and imperial expansion:

[T]he idea of the *non-contemporaneity* of geographically diverse, but *chronologically simultaneous*, times which thus develops, in the context of colonial experience, is the foundation for ‘universal histories with a cosmopolitan intent.’ Once the practice of comparison was established in anthropology, colonial discourse *par excellence*, it was easily transferable to the relations between particular social spheres and practices within



European countries themselves, and thereafter, once again, globally, in an expanding dialectic of differentiation and homogenization.<sup>42</sup>

Osborne affirms that modernity is premised on neither purely secular nor purely historical time, but on the joint employment of the two. Modernity should, he argues, be understood as a ‘category of periodization’ which ‘designates the contemporaneity of an epoch to the time of its classification; yet it registers this contemporaneity in terms of a qualitatively new, self-transcending temporality which has the simultaneous effect of distancing the present from even that most recent past with which it is thus identified.’ In short, this entails that all conceptions of a single universal ‘History’ progressing through ‘stages’

are modernizing in the sense that the results of *synchronic comparisons are ordered diachronically* to produce a scale of development which defines ‘progress’ in terms of the projection of certain people’s presents as other people’s futures, at the level of history as a whole. As such they are indeed homogenizing. But this homogenization is premised upon a differentiation which must first be recognized in order to be negated.<sup>43</sup>

We might unpack what Osborne calls ‘an expanding dialectic’ in the following manner. In terms of secular time, the present moment is empty and independent of its content, and since secular time is infinite and everywhere the same, every such interval can be infinitely divided or expanded. Secular time envelops all qualities in equal measure; that is, it remains a neutral and universal frame while reducing all events to instances within itself. Hence, the difference between secular intervals is quantitative and sequential, regardless of the various qualities enveloped within it. In terms of historical time, by contrast, the present moment has a particular quality distinguishing it from other historical moments. The difference between historical moments is qualitative, not sequential or quantitative, as manifest in particular events and processes. Every event manifests a distinct historical quality, and is internally related to other events manifesting the same quality. The only way to define a

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<sup>42</sup> Peter Osborne, *The Politics of Time: Modernity and Avant-garde* (London and New York: Verso, 1995), 16–17. Emphasis in original.

<sup>43</sup> *Ibid.*, 15. Emphasis in original. Osborne’s analysis suggests that phenomena such as nostalgic traditionalism as well as futuristic utopianism, or ‘movements’ such as the ‘avant garde’ or ‘postmodernism’ should not be seen as oppositions to—or attempted escapes from—modernity. These countless ‘faces of modernity’ are, to the extent that they are dependent on the dialectic between synchronic *and* diachronic comparison, mere variations on the same modern theme, variants of the same fundamental mode of temporal ordering, all inextricably bound up with ‘the politics of a particular set of spatial relations.’ See also Matei Calinescu, *Five Faces of Modernity: Modernism, Avant-garde, Decadence, Kitsch, Postmodernism*, 2nd Revised ed. (London: Duke University Press, 1987).

historical present—and to locate it sequentially in relation to other historical presents as manifested in events—is thus to ‘couple’ historical time with secular time – the abstract and disinterested standard of measurement. Only in this way can historical manifestations be imagined as occurring in a sequence of qualitative development.

There is a profound political dimension in play here, as Osborne also notes, one which has become a recurrent theme in post-colonial scholarship.<sup>44</sup> Because historical and secular time are dialectically related—that is, they are articulated in a joint-yet-contradictory fashion—a strange collusion occurs between their respective particularity and universality. Put another way, a question arises: by whose particular authority is the neutral and independent ‘frame’ of secular time established? Or, as Homi Bhabha puts it, ‘[W]hat is this “now” of modernity? Who defines this present from which we speak?’<sup>45</sup> The disinterested universality of secular time must be postulated from somewhere by someone, and this act itself is always interested and particular—amounting to what one scholar has called ‘a *particular* claim upon the sovereign Now.’<sup>46</sup> As Anne McClintock notes, echoing Michel Foucault, the ‘image of global history consumed ... at a glance ... in a single spectacle’ always implies the postulation of a ‘point of privileged invisibility.’<sup>47</sup> In the present terms, we might say that when the *secular* present is expanded so as to include the entire globe, this very act of expansion implies a privileging of the particular *historical* qualities associated with the agent(s) performing this very act—for instance the British colonial power—so that the distinguishing features of this sovereign power are implied as being universally valid. By the same act, the various historical manifestations associated with the colonized can (as we will see below) be repressed or forgotten, relegated to past stages of development, and thereby made politically irrelevant to the historical

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<sup>44</sup> See e.g. Homi K. Bhabha, *The Location of Culture* (Abingdon and New York: Routledge, 2004), 171–197, 236–256.

<sup>45</sup> *Ibid.*, 244.

<sup>46</sup> Davis, *Periodization*, 20. Emphasis in original. Davis has argued that the invention of the ‘Middle Ages’ as a historical period qualitatively distinct from modernity coincides with the invention of colonial ‘backward’ nations, a problematic that has led to increased interaction between medieval and postcolonial scholars over the past decades. See e.g. Bruce W. Holsinger, “Medieval Studies, Postcolonial Studies, and the Genealogies of Critique,” *Speculum* 77, no. 4 (2002): 1195–1227; Jeffrey Jerome Cohen, ed., *The Postcolonial Middle Ages* (Basingstoke: Palgrave Macmillan, 2001). However, as Keya Ganguly recently has pointed out, while the temporalities of the ‘postcolonial’ have been fruitfully explored as ‘particular mode[s] of historical emergence,’ the field has had an unfortunate tendency ‘to eschew larger philosophical meditations on what makes epochal pronouncements intelligible in the first place,’ and hence tended to adopt conceptual tools from the paradigm they seek to critique. Ganguly argues that this failure to analyse the (dialectical) temporal structure of colonial modernity itself, has led to repeated articulations of the ‘non-modern’ or ‘postcolonial’ precisely in the terms set out by the former – as particular ‘subjective’ reactions to a universal monolith.

<sup>47</sup> Anne McClintock, *Imperial Leather: Race, Gender, and Sexuality In the Colonial Contest* (London and New York: Routledge, 1995), 37.

present as defined by the colonial power: the ruled are seen as belonging to the rulers' own past. This is, following Osborne, the paradoxical logic underpinning the 'politics of time.'

### CIVILIZATIONAL PERSPECTIVES

A 'politics of time' of this sort, and the joint articulation of secular and historical time, was fundamental to what Peter Mandler has called the 'civilizational perspective' which permeated a range of Victorian administrative practices and theoretical articulations.<sup>48</sup> The concept of civilization emerged in the second half of the eighteenth century, particularly in France and Britain, where the term *civility* had long been established as a way for the upper classes to distinguish themselves from the lower.<sup>49</sup> During the nineteenth century, the term became increasingly associated with colonial power: inhabitants or 'cultures', as they would come to be known, of other countries were portrayed as in need of more 'civilization' – which in turn motivated 'civilizing' missions into these same areas.<sup>50</sup> More a taken-for-granted interpretative matrix or ordering principle than a clearly defined term, 'civilization' could take on a range of meanings depending on context.<sup>51</sup> It could be seen as a process of acquiring 'manners,' or a defined and historically attained state of technological, scientific, and organizational sophistication – at once observable fact and abstract ideal.

In the Scottish Enlightenment the term 'civilization' became associated with a mode of temporal ordering; the study (and indeed invention) of the 'social' as a ground for explanation of a range of observable phenomena was merged with theories of progressive development through sequential stages.<sup>52</sup> One early example of this was

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<sup>48</sup> Peter Mandler, "'Race' and 'Nation' in Mid-Victorian Thought," in *History, Religion, and Culture: British Intellectual History 1750-1950*, ed. Stefan Collini, Richard Whatmore, and Brian Young (Cambridge: Cambridge University Press, 2000), 224–244; Peter Mandler, "The Consciousness of Modernity? Liberalism and the English National Character, 1970-1940," in *Meanings of Modernity: Britain From the Late-Victorian Era to World War II*, ed. Martin J. Daunton and Bernhard Rieger (Oxford: Berg, 2001), 119–144.

<sup>49</sup> Michael Levin, *J.S. Mill on Civilization and Barbarism* (London and New York: Routledge, 2004), 18–23; Norbert Elias, *The Civilizing Process: Sociogenetic and Psychogenetic Investigations*, ed. Eric Dunning, Johan Goudsblom, and Stephen Mennell (Oxford: Wiley-Blackwell, 2000), 31–35.

<sup>50</sup> Johan Goudsblom, "Civilization: The Career of a Controversial Concept," *History and Theory* 45, no. 2 (2006): 288–297.

<sup>51</sup> See the special issue of *International Sociology* 16, no. 3 (2001) on the question of civilization(s), in particular Edward A. Tiryakian, "Introduction: The Civilization of Modernity and the Modernity of Civilizations," *International Sociology* 16 (2001): 277–292. A discussion of the various etymological roots of the term and its range of meanings, see Brett Bowden, *The Empire of Civilization: The Evolution of an Imperial Idea* (Chicago and London: The University of Chicago Press, 2009).

<sup>52</sup> See Christopher J. Berry, *Social Theory of the Scottish Enlightenment* (Edinburgh: Edinburgh University Press, 1997), 52–73; Stefan Collini, Donald Winch, and John Burrow, *That Noble Science of Politics: A Study in*

Adam Smith's typology of different evolutionary 'stages' characterized by specific modes of subsistence (hunting and gathering; nomadic or pastoral; agricultural; and commercial).<sup>53</sup> Here, in contrast (or in addition) to 'spatial' classifications, where the civilized were described as 'higher' and the barbarian as 'lower,' the latter were described as *before*, or preceding, the civilized; barbarism, that is, represented civilization's past.

Many have commented on how this mode of temporal mapping spurred paradoxes such as the lingering presence of some structure or idea classified as 'past' in the present.<sup>54</sup> Rather than repeating that such a 'collision' between the past and the present occurred, the following argument is that the logic of the civilizational perspective was premised on the joint articulation of two kinds of time, one secular, and the other historical. In other words, the contradiction is not between past and present per se, but rather between two *kinds* of past, two *kinds* of present, and indeed two *kinds* of future. As we will see below, it was the articulation of secular time and historical time *together* that made possible the notion of progressive development between historical stages, differentiated both in terms of succession *and* characteristic qualities – giving rise to the numerous paradoxes of 'uneven development' emerging in imperial and domestic discourses alike. It was this temporal dialectic—the contradictory articulation of the 'present' as being at once historical and secular—which allowed (historical) pasts to coexist within the interval of the (secular) present.

### *Liberal Imperialism*

The temporal dialectic underpinned the Victorian political philosophies and administrative practices associated with what recent scholarship has called 'liberal imperialism.'<sup>55</sup> Victorian attempts to impart civilizational progress, or 'align ...

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*Nineteenth-Century Intellectual History* (Cambridge et al.: Cambridge University Press, 1983); Jose Harris, "Society and Social Theory," in *Private Lives, Public Spirit: Britain, 1870-1914* (Oxford: Oxford University Press, 1993), 220–250.

<sup>53</sup> Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, ed. R.H. Campbell, A.S. Skinner, and W.B. Todd, vol. 1, 2 vols., The Glasgow Edition of the Works and Correspondence of Adam Smith (Oxford et al: Oxford University Press, 1976); Jennifer Pitts, *A Turn to Empire: The Rise of Imperial Liberalism in Britain and France* (Princeton and Oxford: Princeton University Press, 2005), 25–58.

<sup>54</sup> See e.g. Uday Singh Mehta, *Liberalism and Empire: A Study in Nineteenth Century British Liberal Thought* (Chicago and London: The University of Chicago Press, 1999).

<sup>55</sup> *Ibid.*; Catherine Hall, *Civilising Subjects: Colony and Metropole in the English Imagination, 1830-1867* (Chicago and London: University of Chicago Press, 2002); Theodore Koditschek, *Liberalism, Imperialism, and the Historical Imagination: Nineteenth-Century Visions of a Greater Britain* (Cambridge et al.: Cambridge University Press, 2011); Karuna Mantena, "The Crisis of Liberal Imperialism," in *Victorian Visions of Global Order*, ed. Duncan Bell, *Ideas in Context* 86 (Cambridge et al.: Cambridge University Press, 2007), 113–135; Pitts, *A Turn to Empire*.

deviant and recalcitrant [colonial] histor[ies] with the appropriate future,' revolved precisely around questions of time, history and development.<sup>56</sup> While many of the writers associated with liberal imperialism disagreed on a range of issues, their shared insistence on synchronic comparison together with qualitative historical differentiation between the Empire and its 'backward' subjects can for the most part be read in terms of Mill's 'joint view:' secular time allowed the simultaneous co-presence of comparable entities within the same empty interval, and these might (then) be distinguished in terms of how they manifested different historical qualities. If an event or object manifested a historical quality different from those associated with the historical present of the observer (be it rationality, liberty, civility, industry and so on), this could be relegated to a different secular interval on an abstract timeline.

Observing Indian customs, for instance, James Mill and other writers spoke of these as at once contemporary and as 'curious and recalcitrant fossils of the past.'<sup>57</sup>

As the manners, institutions, and attainments of the Hindus have been stationary for many ages, in beholding the Hindus of the present day, we are beholding the Hindus of many ages past, and are carried back, as it were, into the deepest recesses of antiquity. Nor is this all: Of some of the nations, about which our curiosity is the most alive, we acquire a practical, and what may be almost denominated a personal knowledge, by our acquaintance with a living people, who have continued on the same soil from the very times of those ancient nations, partake largely of the same manners, and are placed nearly at the same stage in the progress of society. By conversing with the Hindus of the present day, we, in some measure, converse with the Chaldeans and Babylonians of the time of Cyrus; with the Persians and Egyptians of the time of Alexander.<sup>58</sup>

Hindu conversation partners were co-present with Mill, and therefore fully available to his observing eye, because they were enveloped by the same secular interval as he. However, since they embodied qualities belonging to a different historical time, they could also be relegated to another (earlier) secular interval on the timeline, one which they shared with—because being so qualitatively similar to—'Chaldeans and Babylonians,' 'Persians and Egyptians.' In this sense conversing with them was, for Mill, to converse with ancient civilizations – which, again, were nonetheless present to Mill as the *contemporary* Indians.

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<sup>56</sup> Mehta, *Liberalism and Empire*, 31, 77–114.

<sup>57</sup> *Ibid.*, 107.

<sup>58</sup> Mill, *The History of British India*, 1:469.

This paradox characterizes a range of texts commenting on colonial subjects throughout the century.<sup>59</sup> ‘The study of races in their primitive condition affords us some clue to the point at which the development of certain societies has stopped,’ wrote legal scholar Sir Henry S. Maine in his *Ancient Law*, a book widely read and repeatedly republished after its first appearance in 1861. ‘We can see that Brahminical India has not passed beyond a stage which occurs in the histories of all the families of mankind, the stage at which a rule of law is not yet discriminated from a rule of religion.’<sup>60</sup> Indian religious practices reminded Sir Alfred Lyall of ancient Roman polytheism, and were cast as a historical ‘survival’ awaiting its (prescribed) turn to monotheism.<sup>61</sup> Lyall, who spent most of his adult life climbing the ranks as a civil servant in India, published the book *Asiatic Studies* in 1882, where he portrayed India as the ultimate laboratory for the social scientist. A scientific observer, Lyall insisted, should not simply select widely dispersed facts only to fit into a preconceived theory of development. Here, India presented an exceptional site for scientific inquiry. In India, Lyall stated, all the different stages of development were gathered in a single place, preserved by the country’s geographical isolation, and hence were available for observation. In this way, he argued, scientific accuracy was guaranteed.

By comparing different ages, diverse societies, and men under dissimilar physical environment, we may collect without difficulty every species and variety of superstition required to fit up our respective theories of religious evolution; and people have thus been accustomed to construct such theories upon materials drawn from an infinite diversity of habitations or races scattered over long periods of time. The convenience of ranging over such a wide field of selection may sometimes tempt us to ascribe to the customs and fancies of distant and greatly differing societies a closer relationship and inter-connexion than really exist. But if the living specimens can all be gathered from one country, then their affinity may seem more demonstrable, and the manner of their sequence or descent more intelligible...the actual facts may be thus brought more easily under a connected view, and within compass of accurate research.<sup>62</sup>

In the case of India, then, Europe could behold its own entire historical development as in a museum (we shall return to museums later on in this chapter). India gathered in a single place all the stages of British history: it was an ‘old heathen world’ similar to

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<sup>59</sup> See Thomas R. Metcalf, *Ideologies of the Raj*, The New Cambridge History of India (Cambridge and New York: Cambridge University Press, 1997).

<sup>60</sup> Sir Henry Sumner Maine, *Ancient Law: Its Connection With the Early History of Society, and Its Relation to Modern Ideas*, 5th London ed. (New York: H. Holt & Co, 1873), 22.

<sup>61</sup> See e.g. Alfred C. Lyall, *Asiatic Studies: Religious and Social* (London: John Murray, 1882), 1-101.

<sup>62</sup> Lyall, *Asiatic Studies*, 3-4.

pre-Christian Britain; its villages were like classical Teutonic republics; its regional structure were akin to ‘medieval feudalism;’ while its coastal cities, with their ‘thirst for knowledge’ and institutions like medieval universities, constituted something like the ‘fringe of British civilization,’ as Maine put it in a lecture to Cambridge University in 1875.<sup>63</sup> Travelling inland from Indian coastal cities was hence like a journey backwards in time. ‘There is no doubt that this is the real India, its barbarism ... imperceptibly giving way in the British territories until it ends at the coast in a dissolution amid which something like a likeness of our own civilization may be discerned,’ he added.<sup>64</sup> The co-existence and availability of all of the characteristic (historical) features of India in a single space and (secular) time was precisely what enabled the relocation of these features on a civilizational scale.

Following Johannes Fabian’s study of nineteenth-century anthropological discourse this can be described as a ‘denial of coevalness.’<sup>65</sup> In order for the comparison between civilizations to be possible in the first place, one must acknowledge their coexistence within the same simultaneous interval of time. On the one hand, the objects of study must share a present moment with the observer; they can only be known to the observer if they are indeed fully observable, fully present. And yet, the object’s availability to the observer is premised precisely on their qualitative difference from the observer; they must already manifest a different historical quality from the observer. This ‘doubling’ is exemplified in the work of Scottish ethnologist John F. McLennan, who coined the term ‘totemism’ and established the comparative method as basic to the sociology of religion, In 1876, he described his methodology in the following terms:

The first thing to be done is to inform ourselves of the facts relating to the least developed races...their condition, as it may be observed today, is truly the most ancient condition of man. It is the lowest and simplest... and ... in the science of history old means not old in chronology but in structure. That is most ancient which lies nearest the beginning of human progress considered as development.<sup>66</sup>

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<sup>63</sup> Sir Henry Sumner Maine, *The Effects of Observation of India on Modern European Thought: The Rede Lecture, Delivered Before the University of Cambridge* (London: John Murray, 1875).

<sup>64</sup> *Ibid.*, 16.

<sup>65</sup> Johannes Fabian, *Time and the Other: How Anthropology Makes Its Object* (New York: Columbia University Press, 2002).

<sup>66</sup> John Ferguson McLennan, *Studies in Ancient History: Comprising a Reprint of Primitive Marriage: An Inquiry into the Origin of the Form of Capture in Marriage Ceremonies* (London: Bernard Quaritch, 1876), 16. McLennan’s methodology influenced the work of contemporary and later scholars of religion such as William

For McLennan, while the objects of study belonged to the same secular interval as himself ('as it may be observed today'), some of the observed 'social' structures manifested historical qualities belonging to other historical presents than his own. These could hence be relegated to 'earlier' stages on secular timeline (they '[lie] nearest the beginning of human progress'); they belonged both to the same time and to a different time than him. This 'aporetic split,' as Fabian calls it, consists in a joint synchronous comparison (in terms of secular time), which insists on fundamental comparability and co-presence; and diachronic ordering, which insists on qualitative difference (in terms of historical time) and hence fundamental incomparability. In short, the observed phenomena were both present and absent; at once available and unavailable. Precisely this paradox was encountered by Maine, discussing the difficulty of describing 'the economical phenomena of the East ... in the economical language of the West.' Indian concepts of property seemed to constantly elude the categories of British sciences. For Maine, this called for a combination of 'the Historical Method' and 'the Comparative Method;' that is, the joint diachronic *and* synchronic ordering of the observed elements.<sup>67</sup> Indian systems of categorization were at once contemporary with the English system, and a paradoxical mix of several earlier stages of development.

This mix made India itself difficult to categorize, compared to other (older) British colonies. In 1883, Cambridge historian John R. Seeley published *The Expansion of England*, a collection of lectures selling more than 80,000 copies in its first year.<sup>68</sup> Here he lamented what he saw as peculiar difficulties facing the British in India. 'In the [old] colonies everything is brand new,' he stated. 'There you have the most progressive race put in the circumstances most favourable to progress. They have no past and an unbounded future. Government and institutions are all ultra-English. All is liberty, industry, invention, innovation, and as yet tranquillity.'<sup>69</sup> In other words, the colonies of the 'old' empire manifested qualities that Seeley associated with the present historical age of England itself. Not so with India:

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Robertson Smith, James George Frazer, Emile Durkheim, and Baldwin Spencer and Francis J. Gillen. See William Robertson Smith, *Kinship and Marriage in Early Arabia* (Cambridge: Cambridge University Press, 1885); James George Frazer, *Totemism* (Edinburgh: Adam & Charles Black, 1887); Baldwin Spencer and Francis James Gillen, *The Native Tribes of Central Australia* (London: Macmillan and Co., 1899); Emile Durkheim, *The Elementary Forms of the Religious Life: A Study in Religious Sociology* (London: George Allen & Unwin; New York, 1915).

<sup>67</sup> Maine, *The Effects of Observation*, 23–4.

<sup>68</sup> Koditschek, *Liberalism, Imperialism, Historical Imagination*, 336.

<sup>69</sup> John Robert Seeley, *The Expansion of England; Two Courses of Lectures* (London: MacMillan & Co., 1883), 176.



India is all past, and I may almost say, no future. What it will come to the wisest man is afraid to conjecture, but in the past it opens vistas into a fabulous antiquity. All the oldest religions, all the oldest customs, petrified as it were... Everything which Europe, and still more the New World, has outlived still flourishing in full vigour; superstition, fatalism, polygamy, the most primitive priestcraft, the most primitive despotism.<sup>70</sup>

Again, Seeley observed in India manifestations of characteristics belonging to other historical times (such as polygamy, superstition, fatalism, and so on); and equally, India existed in a contemporary (secular) present, making it available for his direct observation. And yet again, its manifesting historical times different from Seeley's own relegated it to former 'stages' on the civilizational scale, stages which European civilization had left behind. England and India might be contemporary nations, yet, according to Seeley, they were developing at uneven rates.

For Seeley, then, the peculiar Indian case presented problems which could only be properly understood through studying its historical development in relation to the progress of civilization as such; the issue was whether India was progressing according to the uniform measure of the civilizational scale. At stake in this question of civilizational progress was whether it was underpinned by uniform, linear laws of development. Seeley considered it his disciplinary task to discover such law-like regularities, thereby to 'forecast the future.'<sup>71</sup> 'I tell you that when you study English history you study not the past of England only, but her future.'<sup>72</sup> Two decades earlier, in his widely popular double-volume *History of Civilization in England* (1857/61), self-made historian Henry Buckle had distinguished between Western and Eastern societies, and argued that universal natural laws determined their historical development. '[T]he only progress which is really effective depends, not on the bounty of nature, but on the energy of man,' he argued, and yet, man's ability to progress was co-dependent on external stimulation.<sup>73</sup> Where such had been 'big and terrible,' all kinds of savage and religious superstitions had flourished, hampering civilizational and rational development; by contrast, where they had been 'small and feeble,' there had been a corresponding growth in 'that bold, inquisitive, and scientific spirit, which is constantly advancing, and on which all future progress must depend.'<sup>74</sup>

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<sup>70</sup> Ibid.

<sup>71</sup> Ibid., 1.

<sup>72</sup> Ibid., 174.

<sup>73</sup> Henry Thomas Buckle, *History of Civilization in England*, vol. 1 (London: Kohn W. Parker and Son, 1857), 46.

<sup>74</sup> Ibid., 118–19, 122–3.

In short, what Buckle saw as the superior development of the European civilization had, he argued, its root in a harsh external nature making tough demands on the ingenuity of human minds.<sup>75</sup> While African and Asian civilizations were older, they happened to be founded on rich soil and plentiful harvests, he argued, and this had bred laziness and lack of initiative. European civilization, by contrast, was founded in a more hostile natural environment, and this had bred intentional engagement, and demanded pragmatic mental and practical innovation.

But whilst some like Buckle and Seeley invoked linear, law-like projections of civilizational development, others began suggesting more non-linear trajectories, thus relativizing the forward march of Western civilization. Towards the end of the century especially, the term ‘civilization’ was increasingly used in a plural sense, as philosophers and sociologists compared historical and contemporary civilizations, seeking to map their contingent ‘rise and decline.’ American writer and radical Henry George, whose book *Progress and Poverty* (1879) was widely read in England, had already proposed that any scientific law of civilizational development must account not only for why some civilizations stagnate, but also for how it was the ‘universal rule’ that civilizations tended to first rise and then decline, first progress and then regress.<sup>76</sup> Such a theory, he stated,

must explain ... why, though mankind started presumably with the same capacities and at the same time, there now exist such wide differences in social development. It must account for *arrested* civilizations and for the *decayed and destroyed* civilizations; for the general facts as to the rise of civilization, and for the petrifying or enervating force which the progress of civilizations has heretofore always evolved. It must account for *retrogression* as well as for *progression*; for the *differences in general character* between Asiatic and European civilizations; for the *difference between classical and modern* civilization; for the different *rates* at which progress goes on; and those *bursts and starts, and halts* of progress which are so marked as minor phenomena. And, thus, it must show us what are the essential conditions for progress, and what social adjustments *advance* and what *retard* it.<sup>77</sup>

Here, again, we see the term civilization appearing in plural form; several civilizations now share a contemporary secular moment, and are distinguishable in

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<sup>75</sup> Buckle, *History of Civilization in England*; Henry Thomas Buckle, *History of Civilization in England*, vol. 2 (London: Longman, Green, Longman, Roberts, & Green, 1864).

<sup>76</sup> Henry George, *Progress and Poverty: An Inquiry Into the Cause of Industrial Depressions, and of Increase of Want With Increase of Wealth* (London: Kegan Paul, 1879), 74.

<sup>77</sup> *Ibid.*, 77. Emphasis mine.

terms of their ‘general character,’ that is, in terms of which historical qualities are being manifested in them. Furthermore, because each civilization might exhibit several qualities, each civilization might incorporate both ‘civilized’ and ‘barbarian’ elements. Even Maine had found pockets of ‘civilization’ folded into the pervasive ‘barbarism’ of India: ‘[Indian] barbarism ... contains a great part of our own civilization, with its elements as yet inseparate and not yet unfolded.’<sup>78</sup> Similarly, Africanist Andrew Smith suggested that even while African savage tribes as a rule preyed on each other, ‘seeds of civilization’ might nevertheless turn their fortune (he for example saw one sign of such ‘seeds’ in the high ‘number of young men which were neatly clothed in jackets, &c., principally of leather’) so they might either rise to a ‘respectable place in society,’ or ‘retrograde’ into ‘perfect savages ... absolutely opposed both to religion and civilization.’<sup>79</sup>

Findings like these made the notion of unidirectional and irreversible civilizational progress seem inherently ambiguous. At the turn of the century, comparative multi-civilizational perspectives became increasingly common both in academic sociology—for instance in the work of Durkheim and Weber—and in ambitious popularized essays such as Oswald Spengler’s *Decline of the West* (1918). These more relative, pluralistic views of civilization would prosper still further in the twentieth century, emerging from the well-known fin-de-siecle gloom which, according to some scholars, enveloped Europe’s intellectual elites at the time, including in England. In their essay *Note on the Notion of Civilization* (1913), Emile Durkheim and Marcel Mauss defined civilizations as a ‘moral milieu encompassing a certain number of nations,’ all of which might manifest different versions of the larger civilizational entity to which they belonged.<sup>80</sup> Now, civilizations themselves could be seen as developing unevenly, as well as containing moral ambiguities within themselves. In a 1925 essay, G.K. Chesterton, for instance, protested against those who would relegate barbarism to a past stage of history.

According to the real records available, barbarism and civilization were not successive states in the progress of the world. They were conditions that existed side by side, as they still exist side by side. There were civilizations then as there are civilizations now; there are savages now as there were

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<sup>78</sup> Maine, *The Effects of Observation*, 15.

<sup>79</sup> Andrew Smith, *Report of the Expedition for Exploring Central Africa from the Cape of Good Hope* (Cape Town: Printed at the Government Gazette Office, 1836), 16.

<sup>80</sup> Quoted in Johann P. Arnason, *Civilizations in Dispute*, International Comparative Social Studies (Leiden, Boston and Köln: Brill, 2004), 69–70.

savages then. It is suggested that all men passed through a nomadic stage; but it is certain that there are some who have never passed out of it, and it seems not unlikely that there were some who never passed into it. It is probable that from very primitive times the static tiller of the soil and the wandering shepherd were two distinct types of men; and the chronological rearrangement of them is but a mark of that mania for progressive stages that has largely falsified history.<sup>81</sup>

There were as many examples of barbarism as there were civilizations, he argued, and civilization was not to be considered an endpoint of historical development. ‘When it comes to [the historical] record, the broad truth is that barbarism and civilization have always dwelt side by side in the world, the civilization sometimes spreading to absorb the barbarians, sometimes decaying into relative barbarism.’<sup>82</sup> But whilst these views intensified around the turn of the century, the temporal logic on which they turned was already inscribed in – and indeed made possible – the more ‘optimistic’ civilizational outlooks of the early and mid-nineteenth century.

#### *Barbarism at home*

Structurally speaking, an analogous dialectic underpinned the genre of urban investigation and the masses of commentary and speculation which surrounded the city as a site of civilization (or not): as noted above, Osborne’s modern temporal dialectic underpinned not only the discourses of imperial expansion abroad, but also the temporal mapping of the ‘social’ sphere at home. Crucial here was what might be described as the genre of urban investigation and comment, which emerged in the 1830s dedicated to depicting the ‘condition’ or ‘state’ of the urban working classes. This was an abundant genre, ranging from the more statistical, empirical and medicalized on the one hand, to the more narrative, journalistic and speculative/sensationalist on the other (though a great many accounts mixed statistics with all kinds of speculative causal claims). Nonetheless, in broad terms, the genre was part of the wider birth of what during the 1830s came to be distinguished as the ‘social sciences’ – indeed, even altogether narrative-journalistic accounts considered themselves exercises in these emerging disciplines.<sup>83</sup>

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<sup>81</sup> Gilbert Keith Chesterton, *Everlasting Man* (Peabody, MA: Hendrickson Publishers, Inc, 2007), 55.

<sup>82</sup> *Ibid.*, 55–6.

<sup>83</sup> See e.g. Hugh Shimmin, *Town Life* (London: William Tweedie, 1858); Charles Booth, *Life and Labour of the People in London: East, Central and South London*, Revised., Reprints of Economic Classics (New York: Augustus M. Kelley Publishers, 1969); Henry Mayhew, *London Labour and the London Poor: A Selection by*

Always closely connected to philanthropy and desires to base urban policies on ‘informed opinion,’ the ‘social sciences’ of the 1830s onwards sought to systematically gather, classify, and represent empirical facts relating to the multitude of individuals seen to make up ‘society.’ Equally, they were part of an enormous expansion in the amount of information gathered by the state. From the mid-1830s, the central state became increasingly involved in urban investigatory work: between 1832 and 1846 alone, according to one estimate, more than 100 Royal Commissions gathered and published information about poverty, sanitary conditions, local government, poor laws, and much more.<sup>84</sup> The same period also saw the establishment of several voluntary statistical societies, including the Manchester Statistical Society (1833) the Statistical Society of London (later Royal Statistical Society) (1834), and several provincial societies in Liverpool, Glasgow, Bristol and Newcastle. The expressed intention of the societies was to provide guidance for legislators and ministers based on objective ‘facts.’ As the Statistical Society of London put it in 1840, setting out the goals of social statistics as a scientific discipline concerned with improving the condition (both external and internal – the two were seen as closely related, though causal power was eventually emphasized in the case of the former) of the urban population, and indeed of humankind:

Statistics by their very name are defined to be the observations necessary to the social or moral sciences, to the sciences of the *statist*, to whom the statesman and legislator must resort for the principles on which to legislate and govern ... for his is the science of the arts of civil life.<sup>85</sup>

After its founding in 1857, the National Association for the Promotion of Social Science mobilized public intellectuals such as John Ruskin and John Stuart Mill, and government officials such as Edwin Chadwick and William Farr, as well as gathering thousands of people in annual congresses and meetings in all the major cities of Britain – indeed, it gained international renown as an example of successful organization and application of ‘social knowledge.’<sup>86</sup> Among other things, it provided statistical data with a view toward aiding and guiding policy makers in areas ranging

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Rosemary O’Day and David Englander, *Wordsworth Classics of World Literature* (London: Wordsworth Editions Limited, 2008).

<sup>84</sup> Eileen Janes Yeo, *The Contest for Social Science: Relations and Representations of Gender and Class* (London: Rivers Oram Press, 1996), 76.

<sup>85</sup> “Sixth Annual Report of the Council of the Statistical Society of London,” *Journal of the Statistical Society of London* 3, no. 1 (1840): 2.

<sup>86</sup> Lawrence Goldman, *Science, Reform and Politics in Victorian Britain: The Social Science Association 1857-1886* (Cambridge: Cambridge University Press, 2002), 15–17.

from legal reform, education and public health to questions of commerce, industry and (in twentieth-century terms) social welfare. These emerging groups of social scientists operated at once in opposition to and in alliance with a state bureaucracy that was only slowly professionalising its own civil service.<sup>87</sup>

While the genres and institutions of the early and mid-nineteenth-century social sciences were immensely varied, they shared certain discursive and conceptual features. For instance, to borrow from John Pickstone, they took what might be described as an ‘analytical’ approach to knowledge – that is, they sought to decompose the complex structure of ‘society’ into its constituting elements (streets, houses, literacy, crime, sanitation, and so on) and to uncover internal causal relations through classification and comparison.<sup>88</sup> This ‘analytical’ approach was combined what we might call a particular socio-spatial concern. Writers tended to divide their peculiar object of study—‘society’—into categories based on social status (or occupation) and geographical location. During the period 1830-1880, members of the voluntary statistical societies—mostly professional gentlemen: clergymen, physicians, bankers, scientists, civic leaders, councillors, military men, and even members of Parliament—executed large-scale and logistically demanding investigations centred on gathering and analysing numerical and empirical ‘facts.’ An 1838 report completed by the Manchester Statistical Society required four agents visiting some 40,000 families (‘Houses’) over the course of seventeen months.<sup>89</sup> Similarly, an 1840 report completed by the Statistical Society of London required two agents, who visited some 4,000 households comprising more than 16,000 individuals.<sup>90</sup> The interviewees were categorized according to occupation and geographical habitus. Publications of this sort helped towards establishing some of social science’s fundamental assumptions: while the single and synchronous entity of ‘society’ was available for detached observation as well as close inspection, it was nevertheless made up of aggregated elements and spheres whose internal causal relations were to be discerned through collection and evaluation of as many ‘facts’ as possible.

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<sup>87</sup> Ibid.

<sup>88</sup> John V. Pickstone, *Ways of Knowing: A New History of Science, Technology and Medicine* (Manchester and New York: Manchester University Press, 2000).

<sup>89</sup> Anon., *Report of the Committee of Manchester Statistical Society on the Conditions of the Working Classes in an Extensive Manufacturing District in 1834, 1835, and 1836* (London: James Ridgeway and Son, 1838). Thanks to Tom Crook for pointing out this reference.

<sup>90</sup> Anon., “Report of a Committee of the Statistical Society of London, on the State of the Working Classes in the Parishes of St. Margaret and St. John Westminster,” *Journal of the Statistical Society of London* 3, no. 1 (1840): 14–24.

A third—and for the present purposes, the most important—trait was how the genre incorporated the particular mode of temporal ordering associated with the civilizational perspective, a feature especially pronounced in its more journalistic variants. According to Michael Lacey and Mary Furner, the emerging ‘social sciences’ were characterized by a ‘distinctive element of historicity.’<sup>91</sup> Indeed, the accurate recording of facts—accumulated in archives as well as circulated in the public sphere (parliament and newspapers especially)—became one way of investing the chronological ordering of contemporaneous elements with a sense of scientific objectivity.<sup>92</sup> As Philip Abrams has argued, the nascent discipline of ‘sociology’—the term came to be used in Britain from the 1850s on—began as an attempt to distinguish industrial society from its precedents, and to ‘tell industrial man where industrialization [was] going.’<sup>93</sup> Methodical attempts to ‘identif[y] present forms in the past, and past forms in the present’<sup>94</sup> became a common trope in the writings of the urban investigators, who saw it as part of their mandate to respond to what in 1839 Carlyle famously dubbed the ‘condition-of-England question’ through describing the transition from one historical ‘stage’ of ‘social’ organization to another.<sup>95</sup> In short, social scientific discourse was crucial to the elaboration of the civilizational perspective in a domestic setting.<sup>96</sup>

The narrative-journalistic variant of the social-scientific genre—individually authored accounts detailing personal journeys through urban ‘jungles,’ describing face-to-face encounters with their poor inhabitants—became a prime form in this respect. One of the first texts of this sort was James Phillips Kay’s 1832 pamphlet *The Moral and Physical Condition of the Working Classes ... in Manchester*.<sup>97</sup> Kay’s experience as a

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<sup>91</sup> Michael J. Lacey and Mary O. Furner, eds., “Social Investigation, Social Knowledge, and the State: An Introduction,” in *The State and Social Investigation in Britain and the United States*, Woodrow Wilson Center Series (Cambridge: Cambridge University Press, 2004), 19.

<sup>92</sup> Oz Frankel, *States of Inquiry: Social Investigations and Print Culture in Nineteenth-Century Britain and the United States*, New Studies in American Intellectual and Cultural History (Baltimore: The Johns Hopkins University Press, 2006), 9–10.

<sup>93</sup> Philip Abrams, “The Sense of the Past and the Origins of Sociology,” *Past & Present*, no. 55 (1972): 18. Philip Abrams, *The Origins of British Sociology, 1834-1914: An Essay with Selected Papers* (Chicago and London: Chicago University Press, 1968).

<sup>94</sup> John Morley, *On Compromise* (London: Chapman and Hall, 1874), 22–4.

<sup>95</sup> Abrams, *Origins*. See also Michael Levin, *The Condition of England Question: Carlyle, Mill, Engels* (Basingstoke: MacMillan Press Ltd, 1998); John Scanlan, “In Deadly Time: The Lasting On of Waste in Mayhew’s London,” *Time & Society* 16, no. 2/3 (2007): 205–22.

<sup>96</sup> D.E. Nord, “The Social Explorer as Anthropologist: Victorian Travellers Among the Urban Poor,” in *Visions of the Modern City: Essay in History, Art, and Literature*, ed. W. Sharpe and L. Wallock (Baltimore and London: Johns Hopkins University Press, 1987), 122–134.

<sup>97</sup> James Phillips Kay, *The Moral and the Physical Condition of the Working Classes Employed in the Cotton Manufacture in Manchester* (London: James Ridgeway, 1832).

senior physician at the Ardwick and Ancoats Dispensary during the outbreak of cholera in 1832 in Manchester provided him with first-hand experience of the working classes' characteristic diseases, their poverty, lack of education, and domestic and sexual habits (and by implication 'moral attitudes').<sup>98</sup> Crucially, for Kay, the condition of the English working classes was not simply the fault of the individuals in question, but symptoms of general disharmonies in the 'social body' caused by external 'infections,' in particular Irish immigration.<sup>99</sup> In response to the 'rapid growth of the cotton manufacture,' he argued, 'Ireland ha[d] poured forth the most destitute of her hordes ... savage tribes [whose] contagious example of ignorance and ... barbarous disregard of forethought and economy' had gradually led the English working classes to settle for the lowest possible standard of survival.<sup>100</sup> According to Kay's argument, the (Irish) 'savages' were at once a necessary condition (as work force) of English civilization, and a disruptive 'foreign body' threatening to undermine it. Barbarism was somehow distinguishable from 'civilization,' and yet not entirely separable from it.

This became a common theme in many of the journalistic accounts following in the wake of Kay's pamphlet. An exemplary instance is Henry Mayhew's work *London Labour and the London Poor*, initially serialized in the *Morning Chronicle* in 1849 and 1850, and published in three volumes between 1851 and 1861. Mayhew synthesized and analysed a high number of interviews, statistics and personal observations in colourful descriptions of London's lower classes.<sup>101</sup> Despite inventing a wide range of categories by which to classify the various groups and individuals he encountered, Mayhew's fundamental 'anthropology,' as he described it, was governed by a simple distinction: 'there are—socially, morally, and perhaps even physically

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<sup>98</sup> Indeed, many members of the statistical societies were medical doctors who in the preceding decades had—like Kay—carried out door-to-door investigations in relation to the cholera epidemic. See e.g. Robert John Morris, *Cholera 1832: The Social Response to an Epidemic* (London: Croom Helm, 1976).

<sup>99</sup> Mary Poovey, *Making a Social Body: British Cultural Formations, 1830-1864* (Chicago and London: The University of Chicago Press, 1995), 55–72.

<sup>100</sup> Kay, *The Moral and the Physical Condition of the Working Classes Employed in the Cotton Manufacture in Manchester*, 20–22. Here, then, were already signs of the mid-century shift from describing urban working-class conditions in terms of 'pauperism'—a moral problem on the individual level—to describing it as a result of systemic malfunction or failure, one which—precisely because of its emerging from 'social' causes—might threaten to harm 'society' as a whole. Gareth S. Jones, *Outcast London: A Study in the Relationship Between Classes in Victorian Society* (Harmondsworth: Penguin, 1976), 283–5.

<sup>101</sup> David Englander, "Comparisons and Contrasts: Henry Mayhew and Charles Booth as Social Investigators," in *Retrieved Riches: Social Investigation in Britain, 1840-1914*, ed. David Englander and Rosemary O'Day (Aldershot: Scholar Press, 1995), 105–142. Descriptions of the 'abyss' of the lower classes in London proliferated from the middle of the century, as described in John Marriott, "Sensation of the Abyss: The Urban Poor and Modernity," in *Modern Times: Reflections on a Century of English Modernity*, ed. Mica Nava and Alan O'Shea (London: Routledge, 1996), 77–100.



considered—but two distinct and broadly marked races,’ he declared: ‘the nomadic and the civilized tribes.’<sup>102</sup> These two, he argued, existed on either side of a spectrum on which every member of humanity might be located according to specific criteria. Mayhew drew on the ideas of Africanist Andrew Smith—who, as noted above, had discerned localized indications of civilization in barbarian contexts—and combined these with ideas developed by anthropologist James Cowles Prichard, who in the early nineteenth century had argued for individual physiognomy as one key indicator of ‘development.’<sup>103</sup> Indeed, observing the physical attributes of London’s poor, Mayhew found it ‘curious’ that anthropological categories employed in the colonies had not yet been applied in order to explain ‘certain anomalies in the present state of society.’<sup>104</sup> ‘The points of coincidence [between London’s poor classes and African ‘savages’] are so striking,’ he wrote, ‘that, when placed before the mind, [they] make us marvel that the analogy should have remained thus long unnoticed.’

The resemblance once discovered, however, becomes a great service in enabling us to use the moral characteristics of the nomad races of other countries, as a means for comprehending the more readily those of the vagabonds and outcasts of our own.<sup>105</sup>

The decades after 1860 saw the emergence of a genre directly mimicking the travel—and missionary—writings of colonial explorers, but focussing instead on the ‘dark interior’ of British urban centres.<sup>106</sup> In 1881, journalist George Robert Sims joined forces with illustrator Frederick Barnard, producing a series of articles entitled *How the Poor Live* for the journal *The Pictorial World*. The expressed aim of the articles—published in book form in 1883—was ‘to record the results of a journey with pen and pencil into a region which lies at our own doors - into a dark continent that is within easy walking distance of the General Post Office.’<sup>107</sup> Sims’ explorations would, he hoped, ‘be found as interesting as any of those newly-explored lands which engage the attention of the Royal Geographical Society...’ In 1890, having read accounts of

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<sup>102</sup> Mayhew, *London Labour and the London Poor*, 3.

<sup>103</sup> Smith, *Report of the Expedition*; Andrew Smith, *Illustrations of the Zoology of South Africa: Consisting Chiefly of Figures and Descriptions of the Objects of Natural History Collected During an Expedition Into the Interior of South Africa, in the Years 1834, 1835, and 1836* (London: Smith, Elder and Co., 1859); James Cowles Prichard, *The Natural History of Man: Comprising Inquiries into the Modifying Influence of Physical and Moral Agencies on the Different Tribes of the Human Family* (London: H. Baillière, 1843).

<sup>104</sup> Mayhew, *London Labour and the London Poor*, 5.

<sup>105</sup> *Ibid.*

<sup>106</sup> Felix Driver, *Geography Militant: Cultures of Exploration and Empire* (Oxford: Blackwell Publishing Inc, 2001), 170–198.

<sup>107</sup> George Robert Sims, *How the Poor Live* (London: Chatto and Windus, 1883), 5.

equatorial barbarians in the work of the explorer Henry M. Stanley, Salvation Army General and social reformer William Booth asked rhetorically of British cities: ‘may we not find a parallel at our own doors?’<sup>108</sup>

The Equatorial Forest traversed by Stanley resembles that Darkest England of which I have to speak, alike in its vast extent—both stretch, in Stanley’s phrase, “as far as from Plymouth to Peterhead;” its monotonous darkness, its malaria and its gloom, its dwarfish de-humanized inhabitants, the slavery to which they are subjected, their privations and their misery.<sup>109</sup>

The publications in this genre were underpinned by the temporal dialectic described above. Rev. Thomas Beames’s *The Rookeries of London*, initially published as a series of articles in the *Morning Chronicle*, and then as a book in 1850, compared the present observable state of the metropolis with its medieval past.<sup>110</sup> In the past, he wrote,

[t]he people [of London] generally suffered through bad drainage, wretched roads, unhealthy houses, and want of water. The rich were victims as well as the poor ... pity the there should still remain the monuments of this olden time in the Rookeries of London ... what London was once to all ... it still is to the poor.<sup>111</sup>

For Beames, civilizational progress had somehow, paradoxically, left behind local ‘pockets’ in its midst, and perhaps even made conditions worse.<sup>112</sup> In this sense, as he put it, the rookeries of London were ‘strongholds of corrupt antiquity.’<sup>113</sup>

A change has come over us. The rich have room, have air, have houses endeared to them by every comfort civilisation can minister; the poor still remain sad heralds of the past, alone bearing the iniquities and inheriting the curse of their fathers; with them Time has stopped, if it have [sic] not gone back.<sup>114</sup>

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<sup>108</sup> William Booth, *In Darkest England and the Way Out* (London: International Headquarters of the Salvation Army, 1890), 11–12.

<sup>109</sup> *Ibid.*, 12.

<sup>110</sup> Thomas Beames, *The Rookeries of London: Past, Present, and Prospective* (London: T. Bosworth, 1850).

<sup>111</sup> *Ibid.*, 16–17.

<sup>112</sup> Quoted in Gareth S. Jones, “Casual Labour and Rural Immigration: The Theory of Urban Degeneration,” in *Outcast London: A Study in the Relationship Between Classes in Victorian Society* (Harmondsworth: Penguin, 1976), 127–151.

<sup>113</sup> Beames, *The Rookeries of London*, 8.

<sup>114</sup> *Ibid.*, 20.

The ancient barbarism encountered in distant geographical places was located at the very heart of present England; elements of the historical past were—in terms of secular time—contemporaneous with the historical present.

In the last two decades of the century, this temporal paradox was central to a number of accounts of urban ‘degeneration’ – a term long considered a matter of moral or religious conduct but now increasingly discussed as an empirically demonstrable physical and environmental fact. Moral as well as physical degeneration was considered a progressive and hereditary process, albeit more pervasive in specific socio-spatial circumstances – ‘slums,’ ‘rookeries,’ ‘feverdens,’ or ‘little hells,’ to name but a few of the common terms for the kind of districts in question.<sup>115</sup> As we have seen, members of statistical societies such as Kay had already mooted something similar to this medicalized discourse. In the late century, however, descriptions—in popular, political, and medical literature alike—of the physical state of members of the poorer classes increasingly merged with diagnostic analyses of the ‘social body’ and its diseases and weaknesses. Social investigator Hubert Llewellyn Smith, contributing to Charles Booth’s famous *Life and Labour* in the late 1880s saw the degeneration of the lower classes in London as caused by numerous dynamics peculiar to modern urban life.

It is the result of conditions of life in great towns, and especially in the greatest town of all, that muscular strength and energy gradually get used up; the second generation of Londoner is of a lower physique and has less power of persistent work than the first, and the third generation (where it exists) is of lower than the second.<sup>116</sup>

In his posthumously published *The Town Dweller* (1889), physician John Milner Fothergill described the observable characteristics of the modern urban population—physical stamina, facial features, eating and drinking habits, and so on—as manifesting different historical stages of development.

Assuming the Norse to be the highest type of mankind, we find the town dweller to be a reversion to an earlier and lowlier ethnic form. While the rustic remains an Anglo-Dane, his cousin in London is smaller and darker, showing a return to the Celto-Iberian race . . . Nor is this reversion confined to the Celto-Iberian. In the true bred cockney of the East End, the most degenerate cockney, we can see a return to an earlier archaic type of man

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<sup>115</sup> H.J. Dyos, “The Slums of Victorian London,” *Victorian Studies* 11, no. 1 (1967): 5–40.

<sup>116</sup> Quoted in Jones, “Casual Labour and Rural Immigration: The Theory of Urban Degeneration.”

... It would seem that the cockney, reared under unfavourable circumstances, manifests a decided reversion to an earlier and lowlier ethnic form.<sup>117</sup>

The cotemporaneous entity of ‘society’ seemed to be at once progressing and regressing. Modern cities were manifestations of civilization; yet their effect on inhabitants could potentially be the very opposite of civilizing, leading some to move backwards or regress. In a lecture later published under the title *Degeneration Amongst Londoners* (1885) Scottish physician James Cantlie asked rhetorically: ‘[i]n town we are reduced, or raised up, to a level, which is it?’<sup>118</sup> Due to civilizational comfort and inactivity, the physical frame of middle-class girls was deteriorating;<sup>119</sup> young boys’ stooping over their school desks caused them back problems;<sup>120</sup> insufficient nutrition before they could themselves earn money for better food caused ‘town-bred lads’ to be, ‘as a rule undersized’ until they reached working age,<sup>121</sup> and in America, ‘[t]he environment of city life, the unwholesome meals, the ice-watered drinks, the “quick” lunch, the pungent sauces, the pickles and cocktails necessary to create and foster a spurious appetite, can only end one way, and has already necessitated the manufacturing of dyspeptic “cures” to an extent unheard of in other sections of the human race, ancient or modern.’<sup>122</sup>

The primary duty of every living thing is to secure the continuance of its species; and it depends upon the parent stock what the physical future of the species is to be. In the case of mankind the habits and customs appertaining to civilisation affect the individual to a degree unknown amongst the lower animals ...<sup>123</sup>

The elements that together constituted modern civilization appeared to be moving at once ‘backwards’ and ‘forwards.’ Another medical authority struggling to make sense of this was Henry Maudsley, one of Britain’s foremost (and most widely published) medical psychologists of the period. The ills of civilization could not be ascribed to any external force, Maudsley argued; they were born of civilization itself – a case of

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<sup>117</sup> J. Milner Fothergill, *The Town Dweller: His Needs and His Wants* (London: H.K. Lewis, 1889), 112–14.

<sup>118</sup> James Cantlie, *Degeneration Amongst Londoners: A Lecture Delivered at the Parkes Museum of Hygiene, January 27, 1885* (London: Field & Ture, the Leadenhall Press, & Co, 1885), 47.

<sup>119</sup> James Cantlie, *Physical Efficiency: A Review of the Deleterious Effects of Town Life Upon the Population of Britain, with Suggestions for Their Arrest* (London and New York: G.P. Putnam’s Sons, 1906), 78.

<sup>120</sup> *Ibid.*, 90–1.

<sup>121</sup> *Ibid.*, 7–8.

<sup>122</sup> *Ibid.*, 36–7.

<sup>123</sup> *Ibid.*, vii.

having become too civilized, as it were. For Maudsley, the very human faculties from which civilization had sprung were now being influenced in unprecedented ways by the civilized environment they had created; civilization was eating away at its own base, so to speak.

[W]hen the organism—individual, social, or national—has reached a certain state of complex evolution it inevitably breeds changes in itself which disintegrate and in the end destroy it. It cannot maintain its equilibrium for ever in face of its environment, and ceasing to aggregate to itself it begins to disintegrate, ceasing to progress begins to regress, ceasing to develop begins to decline.<sup>124</sup>

Could there be any cure for ‘social’ ills of this kind? For Mayhew, the ‘barbarian’ would always be parasitic upon the ‘civilized;’ wherever there was a race of the latter, there would be ‘some wandering horde [of the former] intermingled with, and in a measure preying upon, it.’<sup>125</sup> Maudsley was even more pessimistic. Civilizational progress itself created unprecedented kinds of degraded humans that would inevitably destroy it:

[It is n]ot that humanity will retrograde quickly through the exact stages of its former slow and tedious progress ... it will not in fact reproduce savages with the simple mental qualities of children, but new and degenerate varieties with special repulsive characters—savages of a decomposing civilisation, as we might call them—who will be ten times more vicious and noxious, and infinitely less capable of improvement, than the savages of a primitive barbarism; social disintegrants of the worst kind, because bred of the corruption of the best organic developments, with natures and properties virulently anti-social.<sup>126</sup>

Notwithstanding these dire views, by the end of the century most publications in the social-scientific genre contained some kind of proposal for social change, all sharing—whatever their political impact—the assumption that structural change would have beneficial effects even on the poorest classes, and by implication on the entire social whole.<sup>127</sup> At the very least, ‘lingering manifestations’ of the past might be regulated so as not to pose any direct threat to present civilized ‘society’ at large. ‘General’ William Booth saw civilization as causing various forms of barbarism, yet

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<sup>124</sup> Henry Maudsley, *Body and Will: Being an Essay Concerning Will In Its Metaphysical, Physiological & Pathological Aspects* (London, 1883), 238–9.

<sup>125</sup> Mayhew, *London Labour and the London Poor*, 4.

<sup>126</sup> Maudsley, *Body and Will*, 321.

<sup>127</sup> Jose Harris, “Between Civic Virtue and Social Darwinism: The Concept of the Residuum,” in *Retrieved Riches: Social Investigation in Britain, 1840-1914*, ed. David Englander and Rosemary O’Day (Aldershot: Scolar Press, 1995), 67–87.

not—in contrast to Mayhew—in the sense that the poor classes were parasitic upon the civilized. Rather, the poor were suffering under the oppression of the privileged.<sup>128</sup> Referring to Stanley’s description of how ‘[u]pon the pygmies and all the dwellers in the forest ha[d] descended a devastating visitation in the shape of ivory raiders of civilization,’ Booth described London’s poor as being looted by their rich countrymen: ‘The ivory raiders who brutally traffic in the unfortunate denizens of the forest glades, what are they but publicans who flourish on the weakness of our poor?’<sup>129</sup> Indeed, while echoing Mayhew in stating that human races come in ‘two varieties [that] are continually present with us,’ he turned these two categories on their head: ‘the vicious, lazy lout, and the toiling slave.’<sup>130</sup> In other words, the rich and civilized were lazy (otherwise considered a ‘savage’ character trait) because they were powerful; the poor were forced to be industrious (otherwise considered a ‘civilized’ trait) because the lazy rich enslaved them. Booth’s proposed ‘way out’ of this tragic situation was a complex scheme which would require the establishment of a range of novel institutions (such as domestic ‘labour colonies’ within the metropolis) and distributive mechanisms.<sup>131</sup> Booth’s scheme received much critique—mostly for its ‘sensational’ style—but he was not alone in proposing a ‘colonization’ of London suburbs of this sort. In 1884, Rev. Samuel Barnett, an important leader of the so-called ‘settlement movement,’ established Toynbee Hall on the London East End, where, between 1884 and 1900, more than 100 Cambridge and Oxford students would take up residence in order to provide education, entertainment, counsel, and help to self-help across ‘class borders.’<sup>132</sup> Domestic manifestations of the past might be made increasingly synchronous with the civilized present, as much as their imperial counterparts. Indeed, sometimes the imperial and the domestic was actively integrated, not only discursively, but also practically. The following section examines the Great Exhibition of 1851, a particular site where this occurred: the civilizational perspective—in both its domestic and imperial variants—was coupled with philanthropic endeavour and made jointly manifest in material organization and embodied practice.

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<sup>128</sup> Booth, *In Darkest England*.

<sup>129</sup> *Ibid.*, 11–12.

<sup>130</sup> *Ibid.*, 12.

<sup>131</sup> Driver, *Geography Militant: Cultures of Exploration and Empire*, 178.

<sup>132</sup> Standish Meacham, *Toynbee Hall and Social Reform, 1880-1914: The Search for Community* (New Haven and London: Yale University Press, 1987); Robert F. Haggard, *The Persistence of Victorian Liberalism: The Politics of Social Reform in Britain, 1870-1900* (New York, Westport, and London: Greenwood Press, 2000), 66.

## *The Great Exhibition*

One way to elevate the ‘residuum’ was to take it on a tour to a museum, and several scholars have noted the civilizing ambitions of the museum culture which flourished during the Victorian period. By mid-century, public exhibitions of fine art had long been significant to projects of ‘civic improvement,’ and were already becoming important in so-called ‘cultural philanthropic’ attempts to refine and elevate the minds of the lower classes without risking pauperization.<sup>133</sup> The Museum Acts of 1845 and 1850 allowed towns with a population over 10,000 to receive state support for establishing museums ‘for the benefit of the public,’<sup>134</sup> and over the following decades such regional exhibition centres proliferated. Important to this development was the assumption that beholding works of art could have edifying effects on the spectators.<sup>135</sup> In light of this, Foucauldian scholars have pointed out that the museum was not merely a consequence of, but in fact complicit in, the processes of modernization – including the emergence of individuals ‘freely’ policing their own behaviour. Tony Bennett, for example, has shown how Victorian exhibitions and museums functioned as pedagogical ‘machines for progress,’ where visitors from all social classes were being educated and morally elevated through moving their bodies in (more or less) closely regulated patterns through complexes of material and visual representations.<sup>136</sup>

At the Great Exhibition of 1851—one of the most celebrated exhibitions of the century—a central idea was precisely that civilizational development could be impressed upon the spectators as their bodies moved through the spaces and isles of the Crystal Palace and their eyes beheld the wonders on display. In other words, by walking through a material and visual spectacle of the civilizing process, spectators themselves would become more civilized. Their development could be spurred on, limited, or directed, according to a preconceived plan. For precisely such purposes, as early as the planning stage the organizers of the Great Exhibition interacted directly

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<sup>133</sup> See e.g. Giles Waterfield, “Art for the People,” in *Art for the People: Culture in the Slums of Late Victorian Britain*, ed. Giles Waterfield (London: Dulwich Picture Gallery, 1994), 31–64; Brandon Taylor, *Art for the Nation: Exhibitions and the London Public, 1747-2001*, The Barber Institute’s Critical Perspectives in Art History Series (Manchester: Manchester University Press, 1999).

<sup>134</sup> A helpful introduction to Victorian museum studies can be found in Amy Woodson-Boulton, “Victorian Museums and Victorian Society,” *History Compass* 6, no. 1 (2008): 109–146.

<sup>135</sup> See e.g. Hilary Underwood, “Mary Watts, the Home Arts and Industries Association and Compton,” in *An Artist’s Village: G.F. Watts and Mary Watts at Compton*, ed. Mark Bills (London: Philip Wilson Publishers Ltd, 2011).

<sup>136</sup> Tony Bennett, *The Birth of the Museum: History, Theory, Politics, Culture: Policies and Politics* (London and New York: Routledge, 1995).

with provincial visitors and what were sometime dubbed the ‘savage’ working classes. In the provinces, local advisory committees encouraged working-class participation both in planning and executing the Exhibition. Domestic ‘barbarians’ from the provinces were brought to the metropolis by excursion trains, and—through a range of organizing measures—assimilated into the civilization to which they were often contrasted.<sup>137</sup> The event compiled over 100,000 objects presented by 14,000 exhibitors, and committed these to the gaze of 6 million visitors in a ‘Crystal Palace’ built for the occasion—‘at once vast and beautiful’—in Hyde Park.<sup>138</sup>

The Great Exhibition constitutes an exemplary materialization of the civilizational perspective and its underpinning temporal dialectic. At its opening, commentators declared that ‘the intercourse of nations, caused by the practical annihilation of space and time which we owe to the railway system, has removed a whole world of difficulties.’<sup>139</sup> Prince Albert envisioned the event as a universal historical realignment, gathering up all parts of humanity whose development was lagging behind, and providing a new common point of departure. He declared it ‘a true test and living picture of the point of development at which the whole of mankind has arrived ... and a new starting point from which all nations will be able to direct their further endeavours.’<sup>140</sup> The ‘living picture’ was precisely a representation of a global simultaneity, an extended interval of secular time enveloping all the exhibits, which were taken to embody the historical quality of their nation. The Great Exhibition would allow everyone to fall into line so that the onward march of History could begin afresh in a more orderly fashion. Unevenness in the speed or direction of development would no longer be necessary. The Prince repeated his vision when a few years later he opened the Art Treasures Exhibition in Manchester: ‘*a chronological review given at one glance cannot fail to impress us with a just appreciation of the peculiar characteristics of the different periods and countries the works of which are exhibited to us ... In comparing these works with those of our*

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<sup>137</sup> Jeffrey A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (New Haven and London: Yale University Press, 1999), 133–6.

<sup>138</sup> Levin, *The Condition of England Question: Carlyle, Mill, Engels*, 161. Levin notes that the length of the building was 1848 feet; a number symbolizing the year in which England had escaped (in Her Majesty’s words) the ‘convulsions which have disturbed so many parts of Europe.’

<sup>139</sup> *Illustrated London News* XVIII.No.482 (May 3, 1851):1.

<sup>140</sup> Prince Albert, “At the Banquet Given by the Right Hon. the Lord Mayor, Thomas Farncombe, to Her Majesty’s Ministers, Foreign Ambassadors, Royal Commissioners of the Exhibition of 1851, and the Mayors of One Hundred and Eighty Towns, at the Mansion House (March 21st, 1850),” in *The Principal Speeches and Addresses of His Royal Highness The Prince Consort* (London: John Murray, 1862), 112.



own age and country we may well be proud of the immense development of knowledge and power of production we possess.’<sup>141</sup> Similarly, in *Our Age and Country* (1851) Rev. A.E. Pearce from Manchester encouraged his readers to ‘congratulate themselves’ on living in the present age, as well as in the favoured nation of Britain.<sup>142</sup> The Great Exhibition, he felt, would

lead every thoughtful mind to contrast the results of human industry and skill, in the present day, with those of bygone ages; and to note the great advance which has been made in the physical, intellectual, and moral amelioration of the [human] race. Many comparisons will be instituted between our own and other nations, in respect to industrial, commercial, social, and moral condition.<sup>143</sup>

Indeed, the Great Exhibition gave visitors a once-in-a-lifetime opportunity to take James Mill’s ‘joint view’ of the whole world and all of history, observing each developmental stage as they walked through the isles.

This, at least, was how Prince Albert had envisioned it. However, it proved impossible to realize in practice. For one thing, few nations were as eager as England to contribute: half of the exhibits came from the United Kingdom. Furthermore, the Prince’s vision was incompatible with the demands from scientists and manufacturers alike, and the classification system could not but fail to integrate the diverging standards and expectations. To make matters worse, many items arrived late (the lack of international eagerness again) and when they arrived they had to be placed where there happened to be space for them, rather than according to the original plan. The physical limitations of the building structure meant that heavy items could not be placed in the galleries. Electric power for machinery was only available in the northeast corner. As the Exhibition was also a fair, items that were for sale were moved from the centre to the edges of the site. All in all, as one historian has commented, ‘there was no way to walk the exhibits in the order in which they were [originally] meant to be seen.’<sup>144</sup>

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<sup>141</sup> Prince Albert, “At the Opening of the Exhibition of Art Treasures of the United Kingdom at Manchester,” in *The Principal Speeches and Addresses of His Royal Highness The Prince Consort* (London: John Murray, 1862), 177–182.

<sup>142</sup> Alexander Ellis Pearce, *Our Age and Our Country: Thoughts on the Past, the Present, and the Probable Future of England and the World* (London: John Snow, 1851).

<sup>143</sup> *Ibid.*, 5.

<sup>144</sup> Auerbach, *Exhibition*, 93–5.

These practical inconsistencies are not the point, however. They were perhaps to be expected, and were more or less ignored by contemporary commentators, who in any case tended to have the feeling of ‘wandering through history’ as they strolled around the exhibition space (see figure 2.1). The present point is rather how the Great Exhibition itself produced the very impossibilities its commentators claimed it transcended. As Isobel Armstrong puts it, its material ‘enfolding of multiple times and histories within one another meant that the heterogeneous objects with different histories occupied the same gigantic space. Rather than homogenizing objects and cultures, this produced the shock of infinite particularity, a sublime heterogeneity.’<sup>145</sup> Precisely where it *did* function according to plan, then, the Great Exhibition remained haunted by paradoxes that ultimately stemmed from the joint-yet-contradictory articulation of historical and secular time.

An excellent example of this is provided by the then Knightbridge Professor of Philosophy at Cambridge, William Whewell, in his reflections on the experience of walking through the exhibition complex.<sup>146</sup> The Great Exhibition, he declared, offered an opportunity for the ‘unconnected spectator’ of ‘taking a survey of the existing state of art in every part of the world.’<sup>147</sup> This survey revealed, he felt, how in nations compared with nations there is a difference [while] in nations compared with itself at an earlier time, there is progress.<sup>148</sup>

By annihilating the space which separates different nations, we produce a spectacle in which is also annihilated the time which separates one stage of a nation’s progress from another...[and thus] we might, theoretically speaking, be, in a few instants, actual spectators, bodily and contemporaneous eye-witnesses, of all the events which have passed since man has existed upon earth.<sup>149</sup>

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<sup>145</sup> Isobel Armstrong, *Victorian Glassworlds: Glass Culture and the Imagination, 1830-1880* (Oxford: Oxford University Press, 2008), 147.

<sup>146</sup> William Whewell, *Inaugural Lecture, November 26, 1851, The General Bearing of the Great Exhibition on the Progress of Art and Science* (London: David Bogue, 1851), 15.

<sup>147</sup> *Ibid.*, 10. For a discussion of Whewell’s understanding of the observer’s neutrality, see Steve Edwards, “The Accumulation of Knowledge or, William Whewell’s Eye,” in *The Great Exhibition of 1851: New Interdisciplinary Essays*, ed. Louise Purbrick (Manchester and New York: Manchester University Press, 2001), 26–52.

<sup>148</sup> Whewell, *Inaugural Lecture*, 13.

<sup>149</sup> *Ibid.*, 14.



That space was ‘annihilated’ by bringing various artefacts from around the world into the relatively limited space of the Crystal Palace might seem obvious. However, Whewell’s claim that time was annihilated in the very same move is premised on a conflation of time and space. It implies that different geographical spaces and the material produce of a people manifest specific historical characteristics; that there is a specific *quality* of time materialized in artefacts peculiar to each nation. Different qualities thus speak of different historical times. As Bennett has argued, the Great Exhibition represented an important shift in how exhibitions were arranged.<sup>150</sup> Earlier industrial exhibitions had stressed manufacturing *processes* and the contributions made by human labourers in the manufacturing of objects and technologies. By contrast, the Great Exhibition instead emphasized the finished *products*, which were classified (primarily) by their originating nations, which in turn were placed (notwithstanding the difficulties noted above) according to a ‘civilizational scale.’ Each finished artefact, that is, was understood to embody a quality characteristic of the developmental stage to which its nation of origin belonged.

Whewell’s assertion that all of these various historical times could be assembled and observed in a single simultaneous moment implies a kind of time that is independent of the various qualities and historical times contained within it: an interval of secular time. To repeat, historical presents are differentiated in terms of quality, secular presents in terms of succession. Hence, it is only when these two times, historical and secular, are articulated together that the conflation of ‘age and country,’ and the impression of a universal, chronological and historical development become possible. The historical times manifest in various artefacts can thus be redistributed across a secular continuum, or chronological timeline, together displaying a general progressive development to the eye of the beholder. As Whewell put it:

Different nations have reached different stages of this progress, and all their different stages are seen at once, in the aspect which they have at this moment . . . The infancy of nations, their youth, their middle age, and their maturity, all appear, in their simultaneous aspect, like the most distant objects revealed at the same moment by the flash of lightning in a dusky night.<sup>151</sup>

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<sup>150</sup> Bennett, *The Birth of the Museum*, 81.

<sup>151</sup> Whewell, *Inaugural Lecture*, 13.

However, Whewell admitted a universal human ingenuity at work even in the most ‘savage’ crockery, as well as a not uncommon fascination with ‘Oriental’ extravagance. The sheer quality and beauty of the artefacts presented by ‘barbaric’ societies (‘such as we cannot excel’) could make it difficult to distinguish clearly between the historical qualities manifested in the exhibits, and hence to locate the exhibiting nations on the developmental scale. If the historical qualities manifested by ‘barbaric’ artefacts were essentially the same as those exhibited by the ‘civilized’ English, then other nations must also belong to the same historical present (developmental stage) as England. This gave Whewell pause for thought. Could progress in fact be an illusion? In his response we already see intimations of the multi-civilizational perspectives that would flourish towards the end of the century.

What, then, shall we say of ourselves? Wherein is our superiority? In what do we see the realization, of that more advanced stage of art which we conceive ourselves to have attained? ... Surely our imagined superiority is not all imaginary; surely we really are more advanced than they, and this term “advanced” has a meaning; surely that mighty thought of a PROGRESS in the life of a nation is not an empty dream; and surely our progress has carried us beyond them.<sup>152</sup>

It was only a passing thought, however. There was still a historical quality manifest in England which distinguished it from other historical times. The qualitative difference between barbaric and civilized societies, Whewell concluded, was that in the former (‘where magnificence and savagery stand side by side’), art was for the privileged few, whereas in the latter—as exemplified in the Great Exhibition itself—it was for the many.<sup>153</sup>

Other commentators concurred with this. Indeed, many saw the utilitarian quality characterizing the English historical present as materialized precisely in the Great Exhibition itself, as it brought art to the masses (and vice versa) not only of England, but the whole world: “‘There is nothing new under the sun’ except the Crystal palace [sic], and the pacific industrial union of all the nations of the habitable globe under its transparent canopy,’ declared one editorial after the opening.<sup>154</sup> The ancient proverbial wisdom of Ecclesiastes (‘nothing new under the sun’) had been surpassed, a historical rupture had occurred, something qualitatively new had materialized: namely, the

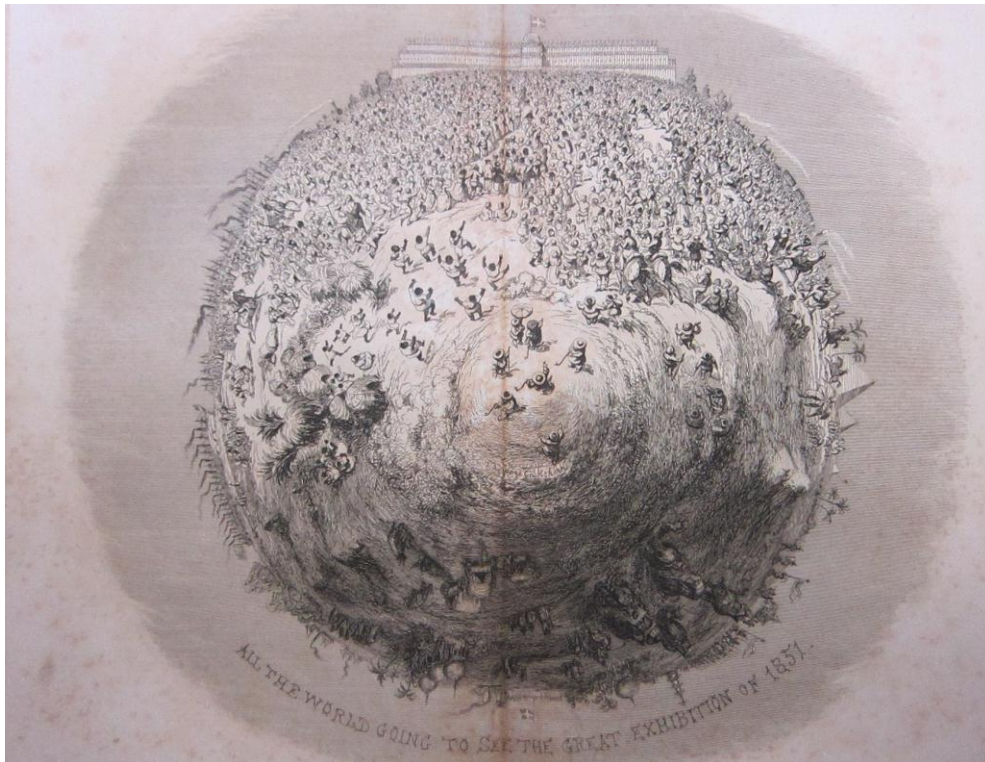
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<sup>152</sup> Ibid., 18–19.

<sup>153</sup> Ibid.

<sup>154</sup> *Illustrated London News* XIX, No. 507 (August 2, 1851): 166.

gathering of all historical developments in a single moment and of all geographical places under a single glass ceiling. This way, the dialectic analysis of the implicit temporalities—being *both* historical and secular—helps us understand how commentators could speak of mankind as united (the ‘Great Family of Man’) conceived as a single, simultaneous entity, *and* distinguish between nations according to the historical quality—and hence their developmental ‘stage’—manifested in their produce (see figure 2.2).<sup>155</sup>



**Figure 2.2 – ‘All the World Going to See the Great Exhibition of 1851’ by George Cruikshank, 1851<sup>156</sup>**

As reporters of the press walked the isles, they encountered such temporal paradoxes—quite literally—on every corner. In the East Indian courts, models of European guns were placed among the ‘more barbaric appliances of assault and defence...so that every stage of progress in the arts of war is faithfully represented.’<sup>157</sup>

<sup>155</sup> For arguments that contemporaries saw humanity as either divided into ‘races’ of varying civilizational stature or as fundamentally united in a single ‘Family of Mankind,’ compare George W. Stocking, *Victorian Anthropology* (London and New York: Collier MacMillan Publishers and The Free Press, 1987); and Paul Young, *Globalization and the Great Exhibition the Victorian New World Order* (Basingstoke: Palgrave Macmillan., 2009).

<sup>156</sup> Henry Mayhew and George Cruikshank, *1851: Or, The Adventures of Mr. and Mrs. Sandboys and Family, Who Came Up To London to “Enjoy Themselves” and To See the Great Exhibition* (London: David Bogue, 1851). Frontispiece. All of mankind streams from their darker and lower corners of the earth towards the Crystal Palace located in the light and literally on top of the world. The secular present allows the viewer to take in all their various qualities at a single gaze. The universal secular present is, however, coupled with a specifically British ‘Sovereign Now:’ the Union Jack flies from both poles of the globe.

<sup>157</sup> *Illustrated London News* XVIII, No. 484 (May 10, 1851): 457.



Cingalese earthenware was considered to be probably ‘not more advanced than in the time when Ptolemy and the Arabian navigators first visited.’ Indeed, speculated the commentator, ‘Cingalese women may still be seen grinding their corn, “two at one stone,” as described in Scripture.’<sup>158</sup>

Over at the Indian court, Indian toys exhibited were ‘probably ... exactly the same kind of toys that Indian children played with when British children were sold in the slave market of Rome.’<sup>159</sup> One reporter described walking through the sections of ‘Aboriginal’ exhibits as having the past available for first-hand inspection. In these, he suggested, ‘[t]he most polished nations may ... trace their own perfection backwards to its source.’ He nevertheless had to admit that when exhibits from different nations were placed next to each other, ‘no line can be drawn clearly’ between the civilized and the uncivilized. ‘There is, however,’ he assured his readers, ‘a general understanding as to what fairly belongs to the people called Aborigines, so that it will not be difficult to mark their share in the Exhibition.’<sup>160</sup>

Not all contributions were as easy to classify as that. One example was the collection of Irish exhibits. One commentator spotted among the ‘Aboriginal’ exhibits a ‘primitive canoe,’ whose construction and portability ‘carries us back to the days of our most primitive forefathers, when the wicker and the skin boat, to be still seen on the Wye and in Ireland, [was still in use].’<sup>161</sup> In this sense, Irish exhibits manifested qualities belonging to a different historical age, and could be placed in the past. Yet, in terms of the material organization of the Exhibition, Irish contributions were placed in the British section of the building space, and thus presented as being part of a contemporary, united British whole. Commentaries and guides referred to Ireland interchangeably as ‘sister kingdom,’ ‘imperial province,’ or ‘nation’ (most often a ‘primitive’ such, and mostly with ‘Celtic’ undertones).<sup>162</sup> The ‘hybridity’ of its produce made it even harder to classify: Ireland exhibited handmade lace as well as mechanically produced linen, signalling at once two different historical times, and seemingly locating Ireland simultaneously on two incompatible developmental stages.

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<sup>158</sup> Ibid., 371.

<sup>159</sup> Ibid., 392.

<sup>160</sup> Ibid., 457.

<sup>161</sup> Ibid., 563.

<sup>162</sup> Louise Purbrick, “Defining Ireland: Ireland at the Great Exhibition of 1851,” in *Britain, the Empire, and the World at the Great Exhibition of 1851*, ed. Jeffrey A. Auerbach and Peter H. Hoffenberg (Aldershot: Ashgate Publishing Limited, 2008), 47–75.

Similar problems arose in the classification of nations such as Greece and India, which were both modern states and also ancient ‘cradles of civilization.’ Ancient Greece had long played an important role in the European narrative of the rise of its own civilization.<sup>163</sup> Indeed, most items denoted ‘Greek’ at the Great Exhibition were in fact neo-classical artefacts produced in Britain or the US, such as Hiram Power’s famous sculpture *The Greek Slave*.<sup>164</sup> The contribution from modern Greece, however, consisted mostly of raw materials, folk art, and agricultural produce, which – together with its location between the displays of Egypt and Turkey – effectively placed it in a somewhat ambiguous position on what Francesca Vanke calls ‘the sliding scale of otherness.’<sup>165</sup> Likewise, Indian development was seen as having stood still for centuries: ‘the ingenious Hindoo, [could still be seen] practicing arts his forefathers practiced with the same skill centuries before civilization had commenced in France or Britain.’ Yet, at the same time, one commentator argued for the importance of modern India to modern England: ‘[India] is perhaps the land in which there is more “future” for our commerce and manufactures than any other.’<sup>166</sup> As Lara Kriegel puts it, ‘[being a] civilization that was simultaneously ancient and flourishing and a guide for contemporary European manufacturers, India seemed to defy history.’<sup>167</sup>

The perhaps most paradoxical case for Victorian commentators arose in the section known as the Medieval Court. Arranged by the artist and architect A.W. Pugin, this section was dedicated to the so-called medieval revival in English architecture and fine art. As had been common since the eighteenth century, and remained so in later international exhibitions, ‘the Middle Ages represented in time what the Orient represented in space, an “other” to the present development of Western Civilization.’<sup>168</sup> The peculiarity of Pugin’s Medieval Court lay in how it provided a survey at once of medieval art *and* of modern art. Or, put another way, how the

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<sup>163</sup> Duncan Bell, “From Ancient to Modern in Victorian Imperial Thought,” *The Historical Journal* 49, no. 3 (2006): 735–759.

<sup>164</sup> Debbie Challis, “Modern to Ancient: Greece at the Great Exhibition and the Crystal Palace,” in *Britain, the Empire, and the World at the Great Exhibition of 1851*, ed. Jeffrey A. Auerbach and Peter H. Hoffenberg (Aldershot: Ashgate Publishing Limited, 2008), 173–190.

<sup>165</sup> Francesca Vanke, “Degrees of Otherness: The Ottoman Empire and China at the Great Exhibition of 1851,” in *Britain, the Empire, and the World at the Great Exhibition of 1851*, ed. Jeffrey A. Auerbach and Peter H. Hoffenberg (Aldershot: Ashgate Publishing Limited, 2008), 191–205. Vanke demonstrates how the same dynamics characterized the classification of the Ottoman Empire and China.

<sup>166</sup> *Illustrated London News*, XVIII, No. 484 (May 10, 1851): 392.

<sup>167</sup> Lara Kriegel, “Narrating the Subcontinent in 1815: India at the Crystal Palace,” in *The Great Exhibition of 1851: New Interdisciplinary Essays*, ed. Louise Purbrick (Manchester and New York: Manchester University Press, 2001), 158 n38.

<sup>168</sup> John M. Ganim, “Medievalism and Orientalism at the World’s Fairs,” *Studia Anglica Posnaniensia* 38 (2002): 179–191.



distinctive mark of England's present aesthetic achievements was embodied in what was essentially an attempt to retrieve and substitute the past for the present. On the one hand, Pugin's art was a critical reaction to what he perceived as the ill of England's present. On the other hand, it was this aesthetic movement that was taken to represent precisely the highest achievement of the present. In the case of Ireland, Roman Catholicism was one feature unambiguously relegating the nation to a past stage of England's development – the qualitative break that had been made in the Reformation. In Pugin's court, however, the same Roman Catholicism was turned into the very defining feature of England's present aesthetic superiority. The artistic manifestation of the historical quality of England's present unapologetically claimed allegiance to a different historical moment, one taken to belong in England's past.

The Medieval Court turned out to be one of the most popular attractions at the Great Exhibition, setting precedent for later world fairs. Nonetheless, England's reunion with its own past was for many commentators an unhappy one.<sup>169</sup> In critical response to the population's 'misguided' admiration for medieval art, many commentators asserted their own preference for 'future-oriented' production. The tone of their comments reveal how they were torn between rejecting the 'backwardness' of medievalism in the name of public education, and acknowledging that Pugin's medieval art also represented a contemporary accomplishment in its own right, and hence manifesting a historical quality that belonged to present (and *not* past) England. 'We object to all backward movements when once we have arrived at a safe ground to stand upon,' declared the author of Tallis's *Description*, and 'at any rate, we must strenuously resist retracing our steps from the revival to the mediæval; which, to speak plainly, we look upon as the culminating point of barbarism.'<sup>170</sup> The Catholic weekly review *The Tablet* put it thus: 'the artistic superiority of Pugin over the others is as plain as, in another school of art, the superiority of Rubens over a dutch cauliflower painter. The English fine arts are on the whole well represented, but they appear sufficiently miserable. There is nothing new.'<sup>171</sup> Another commentator '[trusted] that in due time... the love of art, engendered by [Pugin's] exertions, may

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<sup>169</sup> Ibid., 180.

<sup>170</sup> Jacob George Strutt, ed., Tallis's *History and Description of the Crystal Palace, and the Exhibition of the World's Industry in 1851* (London and New York: John Tallis, 1852), 227.

<sup>171</sup> Anon., "The Exhibition," *The Tablet* XII (May 24, 1851): 330.

re-act in another direction, and produce more legitimate results than those arising from either merely copying or exclusively studying the art productions of one age.<sup>172</sup>

The Great Exhibition thus gathered under a single roof and in a single present (secular) moment a range of historical times manifested in material produce, from England's own 'Middle Ages' to the present achievements of foreign nations. In this, it did not so much overcome as generate and stage the temporal paradoxes stemming from the articulation of secular and historical time. The Exhibition manifested at once a secular present whose neutral universality enveloped all historical times in equal measure, thus making them available to the detached observer, and a historical present characterized by precisely this achievement and, by implication, the distinct 'British' quality of the observer's privileged point of view.

### CONCLUSION

The Victorian obsession with time and periodization is well-known. But how did this incessant historicizing impulse operate? The argument above is that it turned on the deployment of two kinds of time at once, one secular, the other historical. Secular time enabled the grasping of society as a totalized whole under the unambiguous category of simultaneity.<sup>173</sup> Present society could be conceived as a single and synchronous entity made up of the myriad of events, objects, ideas, and persons filling this particular segment of empty, homogenous time, as Taylor (following Anderson) argues. But this captures only one half of the equation, so to speak, and it is insufficient when it comes to accounting for the temporal logic underpinning the civilizational discourses discussed above. Only when the conception of secular time was joined with a conception of historical time could present society be conceived of as *qualitatively* different from other societies, whether these were located in the past, beyond the national borders, or indeed in variants of 'barbarism' in the urban hearts of civilization itself. In this respect, the structural temporality of Victorian modernity was far from one-dimensional. It was not the case that the Victorian period saw a shift to a single strand of time against which there were numerous reactions. Instead, the many temporal paradoxes with which the Victorians struggled—ideas of progress and regress, chronological ordering of contemporaneous phenomena, conservation as well

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<sup>172</sup> *Illustrated London News*, XVIII, No. 484 (May 10, 1851): 396.

<sup>173</sup> Taylor, *A Secular Age*, 208.

as rejection of the past, a sense of transition, or uneven development—all stemmed from a dialectic of two contradictory conceptions of time.

This thesis follows Taylor in locating secularity in the temporal dimension of the modern social imaginary, but nevertheless denies that modernity is exclusively secular. In other words, it affirms that modernity involves an increasing investment of secular time in its social imaginaries—civilization, for instance—while also rejecting that this kind of temporality was privileged or monolithic precisely on this level. As in the present chapter, it reserves the term ‘secular’ for only one of the time conceptions in question, namely time representable as an infinite line of regular intervals independent of particular qualities. The next chapter will seek to justify this by providing a new conceptual genealogy of secular time, one quite different from the one offered by Taylor.

### 3. GENEALOGIES OF SECULAR TIME

#### Universal concepts and local achievements

In 1904, a little known cartographer named Edward Cowell patented and published a pocket-size fold-out time chart of ‘all the important cities of the world’ (see figure 3.1).<sup>1</sup> This little paper device, he proposed, would be valuable to teachers, travellers, and all those dependent on precise dating of received telegraphic messages, such as merchants, bankers, and newspaper editors, and was generally ‘interesting as a novelty to everyone.’ On its centre page, 160 cities were marked as dots within a grid of vertical lines indicating global time zones. A loose strip of paper showing twenty-four hours could be slipped into holes on either side of the paper page, and slid across the chart, enabling the user to determine the time in any of the cities, provided the time of the reader’s own location was known. The user was instructed to set

the time (on the time strip) to your own local time (not Standard Time but to your own meridian). The correct time will then appear in all other cities. This chart also shows the DAY and DATE around the World; that is, it shows at a single glance what portion of the World is occupied by TOMORROW or YESTERDAY (that is, the day succeeding or preceding).<sup>2</sup>

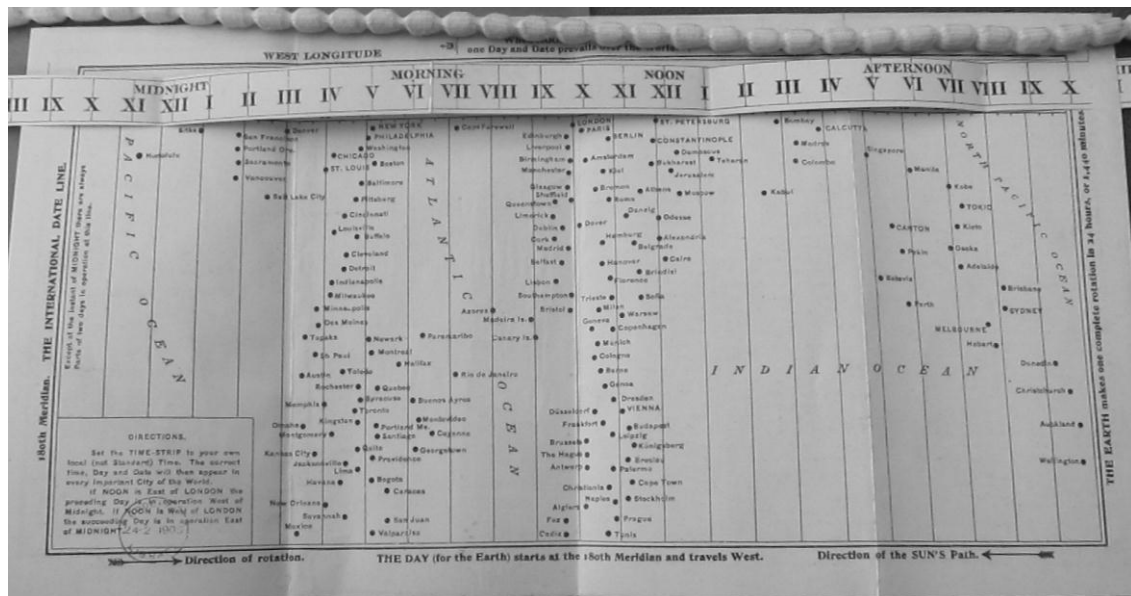
Cowell’s time chart is a small but good example of the gathering of all times and spaces under a ‘single glance.’ The cities are marked in an empty white space, their relative location determined solely by the mathematical calculation of longitude (and latitude), abstracted from actual topological variations. The front page heading honours the ‘sovereign Now’ of the Greenwich meridian, stating that ‘*[w]hen NOON is at LONDON, one Day and Date prevails over the world.*’ However, the little piece of paper embodies an empty interval of absolute simultaneity; which is to say, the material design of the time chart performs a secular conception of time. Travellers, information, and money circulate in the world *within* a temporal interval independent

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<sup>1</sup> Edward Cowell, *Time Chart of the World: Instant Time in 160 Important Cities* (London and Liverpool: George Philip & Son, Ltd in London; Philip, Son & Nephew in Liverpool, 1904).

<sup>2</sup> *Ibid.* Emphasis in original.

of motion. In other words, all of these objects and things are treated as immutable mobiles, substances moving without undergoing change as time passes around them.<sup>3</sup>



**Figure 3.1 – Edward Cowell’s *Time Chart of the World: Instant Time in 160 Important Cities*, 1904**

This was precisely what Canadian delegate to the International Geographical Congress in Venice in 1881, Sanford Fleming, envisioned when he presented his reasons for adopting a ‘system of cosmopolitan time-reckoning’ and the ‘adoption of one particular meridian as a standard time-zero.’ In contrast to the confusion of the present ‘extremely unscientific’ system of notation, Fleming argued, a ‘cosmopolitan’ system would enable ‘absolute certainty with regards to time.’

If we take into view the whole earth, we have *at the same instant in absolute time*, noon, midnight, sunrise, sunset, and all intermediate gradations of the day. The telegraph system, which is gradually spreading like a spider’s web over the surface of the globe, is practically bringing this view of the sphere before all civilized communities. It leaves no interval of time between widely separated places proportionate to their distances apart. It brings points remote from one another, enjoying all the different hours of daylight and darkness, into very close contact. Under our present system of notation, confusion is developed, and all count of time is thrown into disorder.<sup>4</sup>

Fleming was neither first nor alone in feeling the necessity of a global timeframe. As we will see in the next chapter, already in the 1840s, railway proprietor Henry Booth

<sup>3</sup> Chapters 4-6 will engage with precisely these three kinds of ‘immutable mobiles’ and the conception(s) of time they imply: travellers, news, and money.

<sup>4</sup> Sanford Fleming, *The Adoption of a Prime Meridian to Be Common to All Nations. The Establishment of Standard Meridians for the Regulation of Time*. (London: Waterlow & Sons Limited, 1881), 5. Emphasis mine.

had called for a uniformity of time across Britain. In 1858, Giuseppe Barilli (also known under his pseudonym Quirico Filopanti), an Italian professor of mathematics known in England for his active role in Italian radicalism, proposed in his occultist work *Miranda* that one should ‘reckon days both by universal and local time’; that local time should be determined by global time zones centred on the meridian running through Capitol Hill in Rome; and that this universal time should be used for ‘astronomy, for international intercourse, for telegraphs, for ships, for railways, and any other great means of communication between distant points of the earth.’<sup>5</sup>

While Fleming’s particular proposal was not adopted at the time, it is nevertheless representative of a growing European and North American concern during the latter half of the nineteenth century—not only among scientists and statesmen—with temporal coordination and standardization. The growing networks of transoceanic telegraph cables forced attention to the notion of global simultaneity, as testified by the numerous international conventions debating the possible location of a single time meridian. This project itself was made increasingly contentious by its connection to feelings of national pride and accomplishment: most of the 90,000 miles of submarine cable laid by 1880, for instance, had been laid by the British.<sup>6</sup> In England, the way these extensive technological networks were ‘annihilating space by time’ seemed for the first time to make the century-old idea of a global federacy—a ‘Greater Britain’—conceivable in practical terms, as Duncan Bell has argued.<sup>7</sup> Sharing a moment of global simultaneity, it was felt, could finally put world peace within conceivable reach. Commenting on the successful telegraphic connection between England and America, the *Times* declared that ‘America cannot fail to live more in Europe, and Europe more in America ... the world is fast becoming a vast city.’<sup>8</sup> In 1884, three years after Fleming’s initial proposal, the International Meridian Conference decided on the Greenwich meridian as ‘official,’ and during the early 1900s nations increasingly adopted standard time on domestic levels. Absolute time was all the rage.

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<sup>5</sup> Quirico Filopanti, *Miranda: A Book Divided Into Three Parts, Entitled Souls, Numbers, Stars, On the Neo-Christian Religion. With Confirmations of the Old and New Doctrines of Christ From Wonders Hitherto Unheeded in the Words and Divisions of the Bible: In the Facts and Dates of History: And In the Position and Motions of the Celestial Bodies* (London: James Morgan, 1858), 387.

<sup>6</sup> Andrew Herod, *Scale, Key Ideas in Geography* (London and New York: Routledge, 2011), 220. See also Peter Galison, *Einstein’s Clocks, Poincaré’s Maps: Empires of Time* (New York and London: W.W. Norton & Company, 2003); Ian R. Bartky, *One Time Fits All: The Campaigns for Global Uniformity* (Stanford, CA: Stanford University Press, 2007).

<sup>7</sup> Duncan Bell, *The Idea of Greater Britain: Empire and the Future of World Order, 1860-1900* (Princeton and Oxford: Princeton University Press, 2007), 630–91.

<sup>8</sup> “The Success of the Transatlantic Cable Etc,” *The Times*, July 30, 1866, 8.

In one of the opening sections of his book, Taylor calls such Newtonian time nothing less than ‘the mark of modern consciousness.’

[The] identification of time [as secular] in cosmic terms makes it an indifferent container of the human and historical events which our species lives out on this planet. In that sense, cosmic time is (for us) homogenous and empty.<sup>9</sup>

As argued earlier, Taylor conflates several different kinds of time into what he calls ‘secular time,’ and hence misses the temporal logic at play. By contrast, the former chapter used the term *secular* exclusively to denote this particular ‘Newtonian’ kind of time—one ‘homogenous’ and ‘indifferent to what fills it’<sup>10</sup>—and argued that in the Victorian social imaginary this *secular* time was only one side of a temporal dyad also comprising *historical* time. In the following three chapters we shall return to the question of how secular time was brought together with historical time in Victorian England, and foreground some of the paradoxes encountered.

The present chapter, however, focuses on secular time. After secular time and historical time have been clearly distinguished, a genealogy of the concept of *secular* time is still needed: what exactly *is* this concept? Where does it come from? And why call it ‘secular’? As will be made clear below, for this thesis, ‘absolute time’ refers to the same concept as ‘secular time:’ an abstract time independent of motion.

Obviously, the term ‘absolute time’ is commonly associated with the physics of Isaac Newton, but the present chapter will suggest that the concept it articulates has a much older pedigree. This chapter, then, will offer a fresh genealogy of secular time, thus opening up a new entry point for discussions about Victorian conceptions of time and the secular dimension (as Taylor conceives it) of modern social imaginaries. Indeed, various historians have noted the importance of ‘clock-time’ to the Victorians, but none have inquired into when and where it came from – a serious omission given that it is this particular variant of time which allowed entities such as ‘civilization,’ ‘society,’ ‘the nation,’ ‘the public,’ and ‘the economy’ to be grasped as simultaneous and synchronous (indeed, to be grasped as entities in the first place). The first part will uncover the conceptual roots of a time ‘indifferent to what fills it,’ or more precisely, a time ‘independent of motion.’ Far from being a seventeenth-century

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<sup>9</sup> Charles Taylor, *A Secular Age*, 58.

<sup>10</sup> *Ibid.*, 58–9.

scientific invention or an idea peculiar to Victorian and early twentieth-century globalization, this concept had already emerged in a recognizable form during thirteenth- and fourteenth-century scholastic debates.

A conceptual genealogy of this sort can only be tentative. Locating concepts' 'original' place of birth is a difficult—possibly impossible—task. Indeed, one could argue that a concept of a time similar to secular time was articulated long before the fourteenth century.<sup>11</sup> There are nevertheless good reasons for emphasizing scholastic debates. First, the scholastics intentionally refined the concept in response to specific philosophical challenges, constantly seeking to clarify exactly what the properties of secular time were. Secondly, as we will see, their vocabulary allows us to relate the concept directly to the term 'secular,' which helps us to provide a more rigorous understanding of what the term 'secular time' means than is offered by existing genealogies, which tend to conflate it with terms such as 'ordinary,' 'historical,' 'linear,' 'calendrical,' or 'chronological' – all of which might mean very different things. As we will see, several historians have suggested that the concept of secular time emerging from scholastic debates anticipated Newton's 'absolute time,' and even the theory of time put forward by one so prototypical modern thinker as Kant. The present point, however, is not to provide a full history of the concept of secular time, but only to draw on a specific philosophical context in order to clarify what are its characteristic features: what it means to say that it is independent of motion or isochronic or infinite; how it is related to 'immutable mobiles;' and in what sense it might be said to be 'real' even though it is entirely abstract. The second part of the chapter turns the attention to how this concept was embedded in emerging practices during the centuries leading up to the Victorian period. While not explicitly or fully articulated, secular time was nevertheless implied in the establishment of local civic times, periodical publications, and state-sanctioned credit. These examples provide the background for the Victorian case studies examined in the second part of the thesis.

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<sup>11</sup> Aristotle, for instance, already argued *against* such a concept when he critiqued Zeno's paradox of the flying arrow in the opening of *Physics*. Zeno's paradox was premised on a flawed definition of time, he argued, and was therefore wrong by implication. Aristotle, *Physics*, trans. Robert Waterfield, Oxford World's Classics (Oxford: Oxford University Press, 1996).



## SECULAR TIME: A CONCEPTUAL GENEALOGY

It might be helpful to begin this genealogy by considering the kind of genealogy it seeks to counter, the kind of which Taylor's thesis is a version. Taylor's revised secularization thesis can be seen as woven out of two strands that together make up the main thread of his argument: first, that the 'secular' ought to be understood as a conception of time; and second, that the affirmation of 'ordinary life' emerged from Christian reflection on the doctrine of Incarnation, and sixteenth-century reformers' insistence on correct conduct. In order to combine these two, Taylor refers to how the term "'secular", as we all know, comes from 'saeculum', a century or age.'<sup>12</sup> For a Christian thinker like St Augustine, Taylor suggests, *saeculum* and eternity—the laity's everyday concerns and monastic orders' concern with 'higher' cosmic realms and times—coexisted in a complicated yet charitable and reciprocal relationship.<sup>13</sup> The distinction between regular and secular clergy is a case in point: a 'secular' priest is simply a priest who serves outside of any monastic order. To be secular means for Taylor 'the condition of living in this ordinary time.'<sup>14</sup>

Apart from a few references to Augustine and what 'we all know' about the etymology of the *saeculum*, Taylor is mainly concerned with the role of pietistic reform in his narrative of the zig-zagging but ultimately triumphant march of secular time. Augustine's philosophy features in his narrative primarily as a paradigmatic way of articulating specific doctrinal issues, which Taylor argues were 'aggravated'

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<sup>12</sup> Taylor, *A Secular Age*, 55.

<sup>13</sup> Taylor provides a short discussion of Augustine's musical analogy when describing the relation between eternity and temporality: On this view, '[future, presence and past] make sense of each other ... There is a kind of simultaneity of the first note with the last, because all have to sound in the presence of the others in order for the melody to be heard. In this micro-environment, time is crucial because it gives us the order of notes which is constitutive of the melody.' In other words, temporality is not merely contrastive to transcendence, but precisely the medium through which creation participates in God's transcendence. *Ibid.*, 56. For Augustine's view of music as a metaphysical category, see Catherine Pickstock, "Music: Soul, City and Cosmos After Augustine," in *Radical Orthodoxy: A New Theology*, ed. Catherine Pickstock, Graham Ward, and John Milbank, Radical Orthodoxy (London and New York: Routledge, 1999), 243–277; Richard R. La Croix, *Augustine on Music*, Studies in the History and Interpretation of Music (Lampeter: The Erdwin Mellen Press Ltd, 1988); W.F. Jackson Knight, *St. Augustine's De Musica* (London: The Orthological Institute, 1949). On Augustine and the 'saeculum', see R.A. Markus, *Saeculum: History and Society in the Theology of St. Augustine* (Cambridge: Cambridge University Press, 1970); R.A. Markus, *Sacred and Secular: Studies on Augustine and Latin Christianity* (Aldershot: Ashgate Publishing Ltd, 1994); Michael Hanby, *Augustine and Modernity*, Radical Orthodoxy 10 (London and New York: Routledge, 2003).

<sup>14</sup> Taylor, *A Secular Age*, 265. On this view, 'secularity' does not mean 'non-religious.' It merely denotes a level of existence hierarchically 'lower' than'—yet in charitable reciprocal relation to—orders that are relatively 'closer' to eternity. More recently, Taylor argues, this usage of 'secular' has converged with terms such as 'mundane', 'worldly', or even 'temporal', and has come to denote a sphere opposite that of the 'spiritual', 'eternal', or even 'timeless.' Charles Taylor, "The Polysemy of the Secular," *Social Research* 76, no. 4 (Winter 2009): 1143–1166.

both by sixteenth-century reformers and canonical modern thinkers.<sup>15</sup> Reformatory disciplines imposed on the laity—motivated by a ‘hubristic rage to define’ who was a true Christian and not—implicitly emphasized the importance and validity of ordinary life. A long-term consequence was that ‘ordinary’ or ‘secular’ time came to be seen as existing in its own right, apart from the cosmic matrix that had initially granted its relative autonomy and legitimacy.<sup>16</sup> In modern social imaginaries, he concludes, “‘Secular’ time is ... what to us is ordinary time, indeed, to *us* it’s just time, period.”<sup>17</sup> Taylor’s secularization thesis is hence premised on the conflation of ‘secular time’ and ‘ordinary time.’

This conflation is by no means particular to Taylor. Sociologists of religion as well as historians have seemingly become used to treating the two as synonymous, and narratives describing a ‘turn’ to this ‘secular/ordinary’ time from ‘higher’ or ‘sacred time’ have proliferated.<sup>18</sup> In one famous example, medieval historian Jacques le Goff drew the line in the Middle Ages, arguing that this period saw a shift from a ‘Time of the Church’ to a ‘Time of the Merchant,’ a shift underpinning ‘the whole process of secularization of the basis and context of human activity: labour time, and the conditions of intellectual and economic production.’<sup>19</sup> This ‘secularization of time’ denoted for le Goff the gradual removal of God as the sole ‘owner’ of time, and hence as an impediment to the development of financial credit – a development the Church soon discovered theological reasons to endorse rather than oppose.<sup>20</sup> For le Goff, as for Taylor, secular time equals ordinary time. The ‘everlasting’ time of Christianity, le

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<sup>15</sup> See Taylor, *A Secular Age*, 78, 122, 202, 243, 265, 276, 278–9.

<sup>16</sup> Again, while Taylor emphasizes how this dynamic was brought to the fore during the centuries of Latin reform, with its disciplinary measures and ‘rule-based’ understanding of Christian living, he follows Marcel Gauchet in seeing it as a distinguishing feature of (Western) Christianity as such, and even a logical outcome of a dynamic already implicit in the ancient ‘Axial Revolution’. On this reading, it is precisely the appreciation of immanent ‘ordinary temporality’ over against transcendent eternity (however conceived), that eventually allows the former to be unhinged from its transcendent legitimating base and be conceived as existing in its own right (albeit, according to Taylor, in fact still surviving on borrowed Christian capital). See *Ibid.*, 157, 370–1, 578, 774; Marcel Gauchet, *The Disenchantment of the World: A Political History of Religion* (Princeton: Princeton University Press, 1997), 42–46, 76–97, 115–27. It is this completion of a revolution instituting and then turning away from transcendence that, for Gauchet, makes Christianity the ‘religion for the exit of religion’. On the concept of Axial Revolution, see Jóhann Páll Árnason, Shmuel Noah Eisenstadt, and Björn Wittrock, eds., *Axial Civilizations and World History*, Jerusalem Studies in Religion and Culture (Leiden: Brill, 2005). Taylor importantly qualifies his own use of the terms pre-Axial, Axial, and post-Axial. See Taylor, *A Secular Age*, 792n9.

<sup>17</sup> Taylor, *A Secular Age*, 55, 541–2.

<sup>18</sup> For only a few examples, see e.g. Richard Fenn, *Time Exposure: The Personal Experience of Time in Secular Societies* (Oxford: Oxford University Press, 2001); David Cannadine and Simon Price, *Rituals of Royalty: Power and Ceremonial in Traditional Societies* (Cambridge et al.: Cambridge University Press, 1992); Benedict Anderson, *Imagined Communities*; C. John Sommerville, *The Secularization of Early Modern England: From Religious Culture to Religious Faith* (Oxford: Oxford University Press, 1992).

<sup>19</sup> Jacques Le Goff, *Time, Work & Culture in the Middle Ages* (Chicago and London: University of Chicago Press, 1982), 30.

<sup>20</sup> Jacques Le Goff, *The Birth of Purgatory* (London: Scholar Press, 1981).

Goff argued, was gradually replaced by the ‘unpredictable yet calculable’<sup>21</sup> ordinary time of merchants and traders, and, he added, this was even reflected in the scholastic philosophy of the day.<sup>22</sup>

Of particular interest to the present argument is how le Goff refers to scholastic philosophical debates as a ‘theoretical basis’ for the shift to a validation of ‘ordinary time’ over ‘sacred time’ – of interest, because wrong. Not wrong in the sense that it supposes a ‘trickling down’ of ideas from the ivory towers of Oxford and Paris, into the practices of merchants in Genoa and Venice. Nor wrong in suggesting that contemporary thinkers might have articulated what remained implicit assumptions about time in the practices of these merchants. Rather, wrong in its characterization of the concept of ‘secular’ time—quite correctly developed in high and late scholasticism—as ‘ordinary.’ As intellectual historian Pasquale Porro has argued, while terms denoting time (‘temporality,’ ‘duration,’ etc.) might take on several different meanings among the scholastics, these terms *never* referred to anything we might understand as a kind of general or ‘ordinary’ time common to everything – there was simply no philosophical recognition of any such ‘general temporality.’<sup>23</sup> Porro calls instead for a more accurate understanding of the issues involved in scholastic debates to supplement the sense of a historical ‘shift’ in general time conceptions. The scholastics did indeed develop a concept of ‘saeculum,’ but not as ‘ordinary’ or ‘this-worldly’ time, contrary to Taylor and le Goff’s assertions. By examining how the scholastics did define it, we can begin to reconstruct a more accurate genealogy of that peculiar kind of time that would allow the Victorians to imagine a simultaneous moment encompassing the entire globe. Indeed, what connects scholastic philosophy and Victorian social imaginaries is rather—and more precisely—a shared concern with a concept of time that is abstract and independent of qualitative changes.

Some understanding of what was at stake in the scholastic arguments will help to clarify this connection. Thirteenth- and fourteenth-century scholastics attempting to unify and systematize the knowledge of the day faced immense intellectual

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<sup>21</sup> Le Goff’s coupling of the ‘unpredictable yet calculable’ is a good example of the errors that result when secular time and historical time are conflated. As argued in chapter 2, secular time is isochronic, and allows for calculation; historical time is qualitative change and allows for the genuinely unpredictable. The same kind of time cannot have both characteristics.

<sup>22</sup> Le Goff, *Time, Work & Culture in the Middle Ages*, 40–2.

<sup>23</sup> Pasquale Porro, “The Duration of Being: A Scholastic Debate (and Its Own Duration),” in *Das Sein Der Dauer*, ed. Andreas Speer, vol. 34, *Miscellanea Mediaevalia* (Berlin and New York: Walter de Gruyter, 2008), 75–88.

challenges. The writings of Aristotle, recently recovered and supplemented by the writings of his Arab commentators, were somehow to be integrated into the already existing synthesis of Neo-Platonism and patristic Christian theology. As if this intellectual synthesis was not challenging enough, they also had to evade charges of heresy and tiptoe around various legal and clerical edicts, such as the list of 219 erroneous propositions written in 1277 by the bishop of Paris, Stephen Tempier.<sup>24</sup> This list included a wide range of subjects, some of which concerned ideas about time. Proposition number 200 stated as erroneous the claim ‘[t]hat ‘aevum’ and time are nothing in things, but [exist] only in the understanding [or in the mind].’<sup>25</sup>

This particular prohibition posed a number of difficulties. First, this made it illegal not to affirm Aristotle’s definition of time as a measure of—and hence ‘reducible to’—actual motion.<sup>26</sup> For Aristotle, time had to be grounded in something else, but there were certain ambiguities in his works as to whether it was grounded in the changing world being measured, or in ‘the soul’ performing the measuring. Tempier’s prohibition of the latter option—since it might imply that time was not a real feature of reality—left only the first. This, however, suggested that there was no unity of time; that there were as many times as there were worldly processes of change to be measured. Aristotle himself had grounded the unity of time in the *Primum Mobile*, the outmost sphere of the geocentric universe (the realm of the fixed stars), which he perceived as moving in perfect circularity and hence as being uniform, continuous and everlasting.<sup>27</sup> And since Aristotelian time needed *some* kind of grounding, and despite being well aware of the problems this introduced, most scholastic thinkers accepted the solution of ‘the Philosopher,’ as he was called.<sup>28</sup>

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<sup>24</sup> See e.g. J. M. M. H. Thijssen, *Censure and Heresy at the University of Paris, 1200-1400* (Philadelphia, PA: University of Pennsylvania Press, 1998). For the reception of Aristotle’s philosophy among English thirteenth-century thinkers, see Cecilia Trifogli, *Oxford Physics in the Thirteenth Century (Ca. 1250 - 1270): Motion, Infinity, Place and Time*, Studien Und Texte Zur Geistesgeschichte Des Mittelalters (Leiden, Boston and Köln: Brill, 2000).

<sup>25</sup> ‘Quod aevum et tempus nihil sunt in re, sed solum apprehensione.’ Translated in Piero Ariotti, “Celestial Reductionism Regarding Time: On the Scholastic Conception of Time from Albert the Great and Thomas Aquinas to the End of the Sixteenth Century,” *Studi Internazionali Di Filosofia* 4 (1972): 92.

<sup>26</sup> Aristotle, *Physics*, IV. 11. 219 b 2. It is worth noting that *motion* in this context refers to all processes of change or actualization of potential, and not only to spatial movement, or *loco-motion*.

<sup>27</sup> While Aristotle had assumed that all celestial bodies moved in perfect circles, already by the time of Hipparchus (161-127 BC) and Ptolemy (127-151 AD), anomalies and deviations from perfect circular motion was observed in different planets, and differentiation was made between different spheres of the cosmos. See Piero Ariotti, “Toward Absolute Time: The Undermining and Refutation of the Aristotelian Conception of Time in the Sixteenth Centuries,” *Annals of Science* 30, no. 1 (1973): 31–50.

<sup>28</sup> One such problem was deciding whether temporal relations were ‘real’ relations. Thirteenth century philosophy distinguished between several elements within a relation: the subject, which is being referred to something else (e.g. Jesus); the term, that which the subject refers to (Jesus’ mother, Mary); the relation itself, or the type of

A second obstacle facing the scholastics arose when one tried to combine this solution with specific elements of Christian doctrine. The Neo-Platonic influence of earlier centuries had already provided a set of helpful distinctions between different kinds of time, which the scholastics denoted by using different terms. The term denoting the time (*tempus*) of the sublunar world was supplemented by the term *aeternitas* (one, but as we will see not the only, Latin translation of the Greek *aion*) or eternity, which, after Boethius, was understood as an attribute coinciding with, and hence strictly reserved for, God alone – ‘beyond the star decked sky.’<sup>29</sup> *Tempus* denoted the time, or times, of changeable creation; *aeternitas* an attribute of the immutable God in whose inner life creation was given to ‘share’ in varying degrees. This fundamental distinction between the Creator and creation could allow one to accept the Aristotelian view of time as a measure of the changes occurring specifically *in creation*. The very existence of creation, including *tempus*, could be construed as an analogical ‘participation’ in the eternity, or *aeternitas*, of God. One famous version of this schema was Thomas of Aquinas’s distinction between *esse* and *essentia*. The Neo-Platonic notion of participation allowed Aquinas to emphasize the ‘togetherness’ of creation and Creator, while also making a clear distinction between the two.<sup>30</sup> For instance, God’s act of creation (or ‘causing’) the world did for Aquinas *not* necessarily imply any kind of temporal ‘beginning’ or ‘continuity,’ but rather pointed

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referral being made between subject and term (in this case, ‘parental descent’); and the foundation of the relation, that in the term which accounts for the subject having this type of relation (Mary’s ‘motherhood’). In addition, they distinguished between real relations, in which the subject (e.g. a child) is implicitly dependent on the term (the child’s mother), and relations of reason, in which there is no such implicit dependence (e.g. between a knower and what is known). Where both subject and term are dependent on each other in real relation, they would call that a mutual relation. This provided the framework for dealing with temporal relations (one could define subject, term, etc., and distinguish what relations are ‘real’). If temporal relations were accepted as dependent upon the movement of the Primum Mobile, temporal relations could be viewed as real relations. See Rory Fox, *Time and Eternity in Mid-Thirteenth Century Thought*, Oxford Theological Monographs (Oxford: Oxford University Press, 2006).

<sup>29</sup> Boethius, *The Consolation of Philosophy*, trans. P.G. Walsh, Oxford World’s Classics (Oxford: Oxford University Press, 1999), Book III, c. 8 v. 17, p. 53, and Book V, c. 6, vv. 1–48, pp.110–114. Boethius’s Neo-Platonism echoed Plato’s notion of time as participating in and being a ‘mirror-image’ of the eternal ideal: ‘...[the creator] sought to make the universe eternal, so far as it might be. Now the nature of the ideal being was everlasting, but to bestow this attribute in its fullness upon a creature was impossible. Wherefore he resolved to have a moving image of eternity, and when he set in order the heaven, he made his image eternal but moving according to number, while eternity itself rests in unity; and this image we call time.’ Plato, “Timaeus,” in *The Dialogues of Plato: Timaeus and Other Dialogues*, ed. R.M. Hare and D.A. Russell, trans. Benjamin Jowett, vol. 3, *The Dialogues of Plato* (London: Sphere Books Limited, 1970), 241.

<sup>30</sup> A more recent version of this ‘participative’ metaphysics can be found in philosopher William Desmond’s constructive critique of post-Hegelian historicism. For Desmond, time’s ‘other,’ the very origin of temporal becoming, or what we might call ‘eternity,’ can be neither reduced to time itself, nor dismissed as medieval ‘otherworldliness.’ See William Desmond, *Beyond Hegel and Dialectic: Speculation, Cult, and Comedy*, SUNY Series in Hegelian Studies (Albany: State University of New York Press, 1992), 19–82.

to the ultimate dependence of creation on its Creator for its very existence.<sup>31</sup> Hence Aristotle's ultimate time (measure) of the *Primum Mobile* might be everlasting, but it nonetheless remained part of created time (*tempus*), and as such could not be said to be eternal like God's *aeternitas*.

However, in two other doctrinal areas challenges were more difficult and it was here the concept of secular time emerged as a radical and innovative solution. First was the question of what to do with that time that seemed in the scriptures to belong to neither creation nor Creator, for instance the time 'before' the *tempus* of creation; the time before and after 'the times [that] are made by the changes of things,' as Augustine had put it.<sup>32</sup> Even when accepting that God's act of creation did not *necessarily* entail any temporal beginning, the Scriptures still seemed to speak of a time of eternal damnation *after* the end of the world. Similarly, St Paul's formula '*ante tempora aeterna*' (from Titus 1:2; '...in hope of eternal life, which God, who cannot lie, promised before the world began.') seemed to suggest that there had been a kind of time 'before' the creation of time.<sup>33</sup> How else could one account for the three days that according to the book of Genesis occurred *before* the creation of the sun and moon, by which days were measured? In other words, there was a perceived need for a kind of time that could envelop all other times without coinciding with God's eternity.

Second was the question of the motion of angels. As non-material creatures, the angels belonged to an exceptional category. Being created, they were not to be thought of as coinciding with God's *aeternitas*, and so, for instance, were not to be worshipped on a par with God. At the same time, the scriptural stories of angels opening prison doors or in other ways intervening in the sublunar world, even in places and times widely separated, suggested that they were creatures able to move 'through' space and time, yet without —since they were non-material—being subject

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<sup>31</sup> It should be noted that the Thomist/Aristotelian understanding of causality includes more than mere sequential relations between cause and effect. In other words, distinguishing formal cause, material cause, and final cause from efficient cause, allowed Aquinas to preserve the ontological status of the cosmos as created by God (the first Cause), even when allowing for the possibility that creation was everlasting (having no sequential beginning or endpoint). See Fox, *Time and Eternity in Mid-Thirteenth Century Thought*, 95–129.

<sup>32</sup> St. Augustin, "The Thirteen Books of the Confessions of St. Aur. Augustin, Bishop of Hippo, Book XII, Ch. 8," in *Nicene and Post-Nicene Fathers: The Confessions and Letters of St. Augustin, with a Sketch of His Life and Work*, trans. J.G. Pilkington, vol. 1, A Select Library of the Christian Church First Series (Peabody, MA: Hendrickson Publishers, 2004), 178.

<sup>33</sup> Pasquale Porro, "Angelic Measures: Aevum and Discrete Time," in *The Medieval Concept of Time: The Scholastic Debate and Its Reception in Early Modern Philosophy*, ed. Pasquale Porro, vol. 75, Studien Und Texte Zur Geistgeschichte Des Mittelalters (Leiden, Boston and Köln: Brill, 2001), 139.

to the kind of change measured in terms of *tempus*. There was a perceived need for a kind of time that could measure the movement of such peculiar substances. The angels moved, but did not change. In other words, they were *immutable mobiles*.

These issues lay at the heart of the debates from which emerged a distinct concept of time different from, and located hierarchically, as it were, ‘between’ the levels of *tempus* and *aeternitas*. It was distinguished from *tempus* in being independent of any changes that it measured. Put another way, it was not reducible to motion in the way that *tempus* was: it was *independent of motion*. Equally, it was distinguished from *aeternitas* in belonging to creation, as a kind of ‘improper’ eternity – that is, it was not eternal like *aeternitas* but rather *infinite*, enveloping and measuring all other created times (*tempus*). In contrast to *tempus*, which was reducible to motion and therefore did not exist if there was no actual change, this new conception of time, being independent of motion, could measure the kind of ‘motion’ that might have been ‘before’ or ‘after’ creation. This solved the first problem of how to measure the beginning and end of creation. It also solved the problem regarding the movement of angels. Being independent of motion, this new kind of time could measure the movement of substances that did not move – that is, it did not need substances to undergo change in order to exist.

Many terms were used to denote this new and innovative concept. It was not uncommon to use Latin synonyms for the same Greek term in order to distinguish different concepts, a practice which could cause some confusion. In general, scholastic texts were characterized by ambiguous semantics and internally inconsistent vocabulary.<sup>34</sup> For example, the Greek term *aion* is the common root of *aeternitas*, *aevum*, and *saeculum*, though these terms were in turn used to denote very different concepts. One common term used to denote the new infinite time was *aevum*. However, *aevum* was also used, together with *saeculum*, to simply denote long periods of created time, or *tempus*.

The Franciscan thinker Bonaventure used the term *saeculum* when describing the time that came ‘before’ the creation of sun and moon, and that continued ‘after’ Judgement Day. This had to be a time conceived as abstract and existing independently of all

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<sup>34</sup> Henryk Anzulewicz, “Aeternitas-Aevum-Tempus: The Concept of Time in the System of Albert the Great,” in *The Medieval Concept of Time: The Scholastic Debate and Its Reception in Early Modern Philosophy*, ed. Pasquale Porro, vol. 75, Studien Und Texte Zur Geistgeschichte Des Mittelalters (Leiden, Boston and Köln: Brill, 2001), 83–129; Porro, “Angelic Measures: Aevum and Discrete Time.”

qualitative changes in creation; an infinite time that nevertheless did not coincide with God's uncreated eternity.<sup>35</sup> Another Franciscan, John the Scot (or Duns Scotus), developed this idea further, suggesting that secular time indeed measured not only angels, nor only created substances, but everything created as well as uncreated. It is hence in the Franciscan school of thought that we find the roots of the conception of time as a universal standard of measure, precisely of the sort that formed a crucial dimension of Victorian social imaginaries.<sup>36</sup>

Duns Scotus found a peculiar way of meeting the many philosophical and legal demands of the day: he made a crucial distinction between actuality and potentiality, and, contrary to for example the Dominican Aquinas, allowed the potential priority over the actual.<sup>37</sup> What did this mean? For one thing, it meant that he could argue that it was possible to conceive of time *as such*, if one conceived of it as something purely potential, a formal possibility; a time that existed *potentially* needed no actual motion anywhere, be it in the mind, in the world, or in the heavens.<sup>38</sup> Even if all motion came to a halt, Scotus's *potential* time would still measure the *potential* motion of this absolute rest.<sup>39</sup> This, then, was a kind of time entirely independent of motion.<sup>40</sup>

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<sup>35</sup> Guido Alliney, "The Concept of Time in the First Scotist School," in *The Medieval Concept of Time: The Scholastic Debate and Its Reception in Early Modern Philosophy*, ed. Pasquale Porro, vol. 75, Studien Und Texte Zur Geistgeschichte Des Mittelalters (Leiden, Boston and Köln: Brill, 2001), 189–219.

<sup>36</sup> Here, the disagreement between the Dominican school, of which Thomas Aquinas was a representative, and the Franciscan school was whether the *aevum/saeculum* should be thought of as extensional. Dominicans tended to stress non-extensionality, Franciscans generally favoured extensionality. See Fox, *Time and Eternity in Mid-Thirteenth Century Thought*.

<sup>37</sup> This is in no way to suggest that any of the discussed thinkers were motivated 'merely' by politics rather than strictly philosophical concerns, but only to register that for all their intellectual zeal, they also managed to evade Tempier's edicts.

<sup>38</sup> 'Even in the case that the first celestial movement did not exist [or were stopped] the very repose that the heavens would have through the cessation of that movement would be measured potentially by the time which measures that first movement when this movement exists in a positive and actual way. And by means of this same potential time all other movements existing in an actual manner can also be measured. Thus, the movement measured in this way does not depend necessarily for its existence on the movement of the first sphere.' Quoted in Ariotti, "Celestial Reductionism Regarding Time: On the Scholastic Conception of Time from Albert the Great and Thomas Aquinas to the End of the Sixteenth Century," 112. See also Neil Lewis, "Space and Time," in *The Cambridge Companion to Duns Scotus*, Cambridge Companions to Philosophy (Cambridge: Cambridge University Press, 2003), 69–99.

<sup>39</sup> Henry of Ghent had already proposed that *aevum/saeculum* could even measure sublunar entities that did not change, but Duns Scotus's proposition radicalized this idea. Porro, "Angelic Measures: Aevum and Discrete Time."

<sup>40</sup> What ultimately enabled Duns Scotus to erect a common standard for all kinds of change was his doctrine of the 'Univocity of Being' – that is, the application of the concept of 'being' in the *same way* to both Creator and creation. 'Being' here becomes a 'higher' category, to which both God and creation belong in the same, univocal way. This can be contrasted to Aquinas's distinction between *esse* and *essentia*, where creation receives its relative *existence* (*essentia*) from God, who alone *is Being* (*esse*). Philosophically speaking, Duns Scotus's doctrine disrupts the Thomist idea of existence-by-participation. Instead, every existing entity by implication has a kind of autonomous existential core considered apart from its necessary relation as creature to Creator. When potentiality and formal logic is prioritized over actuality, then—as a consequence—matter, motion, and time become conceivable as separate from each other – something unthinkable in Thomist metaphysics. See for example Éric Alliez, *Capital Times: Tales From the Conquest of Time*, trans. Georges Van Den Abbeele, Theory Out of Bounds



Granting formal potentiality priority over actuality allowed Duns Scotus to bypass Tempier's edict, which forbid him to locate time in the soul, yet without accepting Aristotle's reduction of time to *actual* motion, which had been so difficult to square with Scripture. Secular time was now defined as a formal potentiality, entirely real, but also abstract and independent from anything it measured. Scotus's followers, such as John Marbres, emphasized and developed these points even further.<sup>41</sup> Over the thirteenth and fourteenth centuries, as Porro argues, there followed a general shift towards treating secular time as the absolute measure of all temporal change.<sup>42</sup>

In this way, secular time emerged as a time independent of motion, allowing discrete and unchanging substances, *immutable mobiles* (angels), to move 'within' it, entirely independently of its passage. It was infinite, yet not to be conflated with God's transcendent eternity; that is, it existed as pure formal potentiality, and so was fully real in and of itself, even though entirely abstract. While it possessed durational instants (and so could measure 'befores' and 'afters'), its mode of differentiation between intervals was entirely quantitative – it was homogenous and isochronic, and entailed no qualitative change – or in Bonaventure's words, no 'newness or oldness.'<sup>43</sup>

Another implication—a paradoxical one, perhaps, but in general agreement with Taylor's thesis—is that secularity understood in terms of 'secular time' is *not* equivalent to an absence of 'religion,' or more specifically, Christianity. Porro makes the point that contrary to le Goff's thesis about 'Church time' giving way to

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(Minneapolis and London: University of Minnesota Press, 1996), 196–238. In the late twentieth and early twenty-first centuries, scholars have been in negative agreement about the bearings of Scotus's thought on modernity. Gilles Deleuze viewed it positively, seeing the prioritizing of pure potentiality over actual existence as offering a way beyond problems in modern metaphysics. See e.g. Gilles Deleuze and Paul Patton, *Difference and Repetition* (London: Continuum International Publishing Group, 2004); Todd May, *Gilles Deleuze: An Introduction* (Cambridge: Cambridge University Press, 2005); Éric Alliez, *The Signature of the World: What Is Deleuze and Guattari's Philosophy?*, ed. Alberto Toscano (New York and London: Continuum, 2004). Others have, contrary to Deleuze, seen the doctrine as either failing to properly move beyond modern philosophical 'stalemates,' or even as representing the cause of rather than cure for modernity's perceived ills. See e.g. Alain Badiou, *Deleuze: The Clamor of Being*, trans. Louise Burchill, *Theory Out of Bounds* 16 (Minneapolis and London: University of Minnesota Press, 2000); John Milbank, Catherine Pickstock, and Graham Ward, *Radical Orthodoxy: A New Theology*. The debate continues in Nathan Widder, "The Rights of Simulacra: Deleuze and the Univocity of Being," *Continental Philosophy Review* 34, no. 4 (2001): 437–453; Catherine Pickstock, "Duns Scotus: His Historical and Contemporary Significance," *Modern Theology* 21, no. 4 (2005): 543–568; Richard Cross, *The Physics of Duns Scotus: The Scientific Context of a Theological Vision* (Oxford: Clarendon Press, 1998). Cross argues that Duns Scotus's understanding of the *aevum* is non-extensional. For a response to this claim, see Pickstock, "Duns Scotus: His Historical and Contemporary Significance," 569 n2, 570–1 n4, and 573 n48.

<sup>41</sup> Ariotti, "Celestial Reductionism Regarding Time: On the Scholastic Conception of Time from Albert the Great and Thomas Aquinas to the End of the Sixteenth Century."

<sup>42</sup> This makes the present definition of secular time analogous to the abstract and 'neutral' conception of secular space described in the work of Catherine Pickstock, *After Writing: On the Liturgical Consummation of Philosophy*, *Challenges in Contemporary Theology* (Oxford: Blackwell Publishers, 1998); Catherine Pickstock, "The Medieval Origins of Civil Society," in *The Social in Question: New Bearings in History and the Social Sciences*, ed. Patrick Joyce (London and New York: Routledge, 2002), 21–43.

<sup>43</sup> Quoted in Fox, *Time and Eternity in Mid-Thirteenth Century Thought*, 265.

‘Merchant’s time,’ the postulation of a single (secular) kind of time enveloping all things in equal measure was, if anything, a ‘theologization’ rather than ‘secularization’ of time in le Goff’s meaning of the term.<sup>44</sup>

Though its exact origins are obscure, the subsequent appropriations of secular time are well-known. There is a wide scholarly consensus that its peculiar characteristics anticipated and acquired a ‘modern,’ ‘scientific’ articulation in Isaac Newton’s definition of absolute time.<sup>45</sup> For Newton, it was impossible that any motion might be regular enough to measure true time with scientific accuracy, and he therefore famously postulated absolute time as a purely abstract and mathematical concept, separate from any particular manifestation or measurement.<sup>46</sup> His famous definition of true or absolute time suggests its scholastic pedigree:

Absolute, true, and mathematical time, in and of itself and of its own nature, without reference to anything external, flows uniformly and by another name is called duration. Relative, apparent, and common time is any sensible and external measure (precise or imprecise) of duration by means of motion; such as a measure—for example, an hour, a day, a month, a year—is commonly used instead of true time.<sup>47</sup>

In Newton’s words, this abstract time would, ‘[remain] the same, whether motions are swift, or slow, or none at all.’ For Newton, motion was simply loco-motion, a mechanistic relocation of discrete substances that would persist in their present state if not influenced by external forces. Everything that moves in absolute time *is* an immutable mobile: time and the things that move ‘within’ its instants are completely independent of each other.

Another familiar stopping point in terms of the subsequent *philosophical* history of secular time is Immanuel Kant. Kant’s theory of time not only relied heavily on

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<sup>44</sup> Porro, “The Duration of Being,” 86.

<sup>45</sup> Fox, *Time and Eternity in Mid-Thirteenth Century Thought*, 265; Ariotti, “Toward Absolute Time: The Undermining and Refutation of the Aristotelian Conception of Time in the Sixteenth Centuries”; Ariotti, “Celestial Reductionism Regarding Time: On the Scholastic Conception of Time from Albert the Great and Thomas Aquinas to the End of the Sixteenth Century”; Porro, “The Duration of Being”; Porro, “Angelic Measures: Aevum and Discrete Time”; Alliez, *Capital Times*, 225.

<sup>46</sup> It should be noted that Newton no longer understood motion in Thomist/Aristotelian terms as a process of actualization through which an object strives for its own telos. His view is entirely mechanistic: rest and motion are presupposed as states of equal standing inertly persisting in themselves as long as they are not influenced by external factors. Motion has been reduced to loco-motion. See Mike Sandbothe, *The Temporalization of Time: Basic Tendencies in Modern Debate on Time in Philosophy and Science*, trans. Andrew Inkpin (Lanham, Maryland: Rowman & Littlefield, 2001), 9–12; Simon Oliver, *Philosophy, God and Motion*, Radical Orthodoxy (London and New York: Routledge & Francis Group, 2005), 156–190.

<sup>47</sup> Isaac Newton, *Mathematical Principles of Natural Philosophy*, trans. Robert Thorp (London: Dawsons of Pall Mall, 1969), 12.

(while of course engaging critically with) Newton's concept of absolute time; his metaphysics also drew on and developed specifically Franciscan sources.<sup>48</sup> Kant's time has many of the characteristics we have described above, and for the present purposes a few examples must suffice. For Kant, time was neither reducible to change, nor eternal. Time was rather an intuitive form mediating all appearances in terms of duration, simultaneity, and succession.<sup>49</sup> This meant that, for Kant, '[e]verything which moves and changes is in time, but time itself does not change, does not move, any more than it is eternal.'<sup>50</sup> Unhinged from its various determinants, and gaining independence from both eternity and the movements of the world (considered by Kant to be fully autonomous), Kant's conception of time can hence be seen as a re-application of scholastic secular time as an 'improper eternity.' First, it was fully real, even though it was abstract: as an *a priori* form of intuition, it mediated all movements both in the outer world and the inner mind.<sup>51</sup> Second, it was independent of motion: Kant was confident that 'with regard to phenomena in general, we cannot think away time from them, and represent them to ourselves as out of and unconnected with time, but we can quite well represent to ourselves time void of phenomena.'<sup>52</sup> Finally, it was homogenous and isochronic; '[presenting] to us no shape or form, [and so] we endeavour to represent [its course] by a line progressing to infinity, the content of which constitutes a series which is only of one dimension.'<sup>53</sup> From measuring the motion of created beings participating in transcendence, through

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<sup>48</sup> For the relation between Newton and Kant's respective philosophies of time, see Sadik J. Al-Azm, *Kant's Theory of Time* (New York: Philosophical Library, Inc, 1967). Intellectual historian Ludger Honnefelder demonstrates that the transcendental philosophy of Immanuel Kant constitutes not so much a break from a homogenous medieval tradition (as Kant himself insisted) as a development of its specifically Franciscan strands, to the detriment of its Dominican alternative. Though Kant does not himself seem to have read the scholastics, his acknowledged sources are developing a distinct Scotist metaphysics: 'Kant does not follow the particular medieval approach that nineteenth- and twentieth-century Neo-scholasticism considered to be significant, i.e. the Thomistic, [but instead] the medieval approach that influenced seventeenth- and eighteenth-century metaphysics most profoundly, i.e. that of Duns Scotus.' Ludger Honnefelder, "Metaphysics as a Discipline: From the 'Transcendental Philosophy of the Ancients' to Kant's Notion of Transcendental Philosophy," in *The Medieval Heritage in Early Modern Metaphysics and Modal Theory*, ed. R.L. Friedman and L.O. Nielsen, trans. Jörn Müller, The New Synthese Historical Library 53 (Dordrecht, Boston, and London: Kluwer Academic Publishers, 2003), 55. Likewise, analytic philosopher John Hare sees John Duns Scotus as 'a key intermediary between Aristotle and Kant.' John E. Hare, *God and Morality: A Philosophical History* (Oxford: Blackwell Publishers Ltd, 2009), 2.

<sup>49</sup> Felix Grayeff, *Kant's Theoretical Philosophy: A Commentary to the Central Part of the "Critique of Pure Reason"*, trans. David Walford (Manchester and New York: Manchester University Press, 1970), 47.

<sup>50</sup> Gilles Deleuze, *Kant's Critical Philosophy: The Doctrine of the Faculties*, trans. Hugh Tomlinson and Barbara Habberjam (London: The Athlone Press, 1995), viii.

<sup>51</sup> Grayeff, *Kant's Theoretical Philosophy*, 46. In Kant's own words, '[t]ime is a condition a priori of all phenomena, whatsoever – the immediate condition of all internal, and thereby the mediate condition of all external phenomena.' Immanuel Kant, *Critique of Pure Reason*, trans. J.M.D. Meiklejohn, Everyman's Library 909 (London: J.M. Dent & Sons Ltd, 1959), 50.

<sup>52</sup> Kant, *Critique of Pure Reason*, 48.

<sup>53</sup> *Ibid.*, 50.

measuring all beings (created or non-) in the form of abstract potentiality, in Kant's critical philosophy time was made a formal 'transcendental:' something always already intuitively so; an *a priori* form mediating the phenomenal world.

It is this scholastic concept of time that is embodied in Cowell's little time chart of the world, as described in the opening of this chapter. The immutable mobiles whose flight it measures are no longer angels of course; they have become distinct commodities such as travellers, information, and money. Yet the concept of time is the same: abstract and independent of change, isochronic and uniform. In the next part of the thesis, we will see how the railway network turned its passengers into immutable mobiles travelling across the 'frictionless' iron road; how the news network transmitted news through a number of material media without its content being altered; and how Bank of England notes were made to embody the immutability of the gold standard while circulating throughout the national territory. In short, we will see how, though 'the first steps' towards secular time were indeed 'guided by the angels,' as Porro puts it,<sup>54</sup> its investment in the Victorian social imaginary was guided by railwaymen, investors, engineers, metallic alloys, telegraph clerks, printers, rubber-trees, seamen, journalists, papier-mâché casts, inventors, editors, artists, heavy machinery, medical doctors, and a rapidly increasing number of non-professional practitioners – railway passengers, newspaper readers, and whoever implicitly put their trust in the Bank of England's 'promise to pay.'

#### POCKETS OF PERFORMANCE: PRE-VICTORIAN SECULAR TIME

The philosophical staging posts, so to speak, represented by Newton and Kant have been put in place. But how, during the centuries preceding the nineteenth, was secular time practised and performed by non-philosophers? This section examines three examples of what we might call 'pockets of performance' of secular time in the centuries before the Victorian period, when it would become more heavily invested in widespread collective practices. As we have seen in the preceding chapters, notions of cosmic hierarchical forms dominated eighteenth-century social imaginaries in England, whereas notions of contractarian or 'progressive' Whiggism remained—in terms of articulated opinions—marginal and elitist.<sup>55</sup> As Arthur Lovejoy states, '[i]t was in the eighteenth century that the conception of the universe as a Chain of Being,

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<sup>54</sup> Porro, "Angelic Measures: Aevum and Discrete Time," 159.

<sup>55</sup> J.C.D. Clark, *English Society*.

and the principles which underlay this conception ... attained their widest diffusion and acceptance.<sup>56</sup> Indeed, the spheres where most eighteenth-century people lived their daily lives retained their independence from the expanding state apparatus described by scholars such as John Brewer.<sup>57</sup> Attempts to reform the calendar in the name of a 'Newtonian,' universal grid failed, to the extent that most people continued to participate in networks which embedded strong notions of 'higher times,' not least those rooted in the parish with its church and annual cycle of festive rituals and familial rites (baptisms, weddings and burials).<sup>58</sup> While emerging literary genres such as the novel suggested the emergence of autonomous individuals who constituted 'society' by assembling voluntarily around contractual agreements, these individual characters nevertheless 'exist[ed] in manifold forms,' and remained construed on the background of a total cosmic order, where their virtuous character might 'rise' in a vertical hierarchy rather than 'progress' horizontally.<sup>59</sup>

In the following, we are thus dealing with localized, emerging networks of secular time which existed, to return to Taylor's formulation, within a 'multiplex of higher times' that remained dominant (though certainly not hegemonic) even in the eighteenth century. In other words, secular time did not simply 'replace' other kinds of time; rather it came to feature as one time conception alongside practices rooted in notions of God's eternity (mass, for example), a Great Chain of Being, and ancient, immemorial law (common law courts, or the use of common lands guaranteed through inherited, customary rights). The following sections provide an introduction to the Victorian case studies developed in the next three chapters: namely, the networks associated with railways and national time, newspapers published on a daily basis, and Bank of England notes and the integration of an 'economic' sphere.

### *Local Time*

It seems to have become almost mandatory for scholars describing modern time keeping and organization to assert that before the extension of the Victorian railway network, every English town followed its own local time. The new national 'railway

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<sup>56</sup> Arthur O. Lovejoy, *The Great Chain of Being*, 183.

<sup>57</sup> Anthony Giddens, *The Nation-State and Violence: Volume Two of A Contemporary Critique of Historical Materialism, Social and Political Theory* (Cambridge: Polity Press, 1985), 21; John Brewer, *The Sinews of Power: War, Money and the English State, 1688-1783* (London et al.: Unwin Hyman, 1989).

<sup>58</sup> Robert Poole, *Time's Alteration*.

<sup>59</sup> See discussion in John Richetti, *The English Novel in History, 1700-1780* (London and New York: Routledge, 1999), 1-17. See also John Richetti, "Introduction," in *The Cambridge Companion to The Eighteenth-Century Novel*, The Cambridge Companions to Literature (Cambridge et al.: Cambridge University Press, 1996), 1-40.

time' is then cast as a sign of a generic modernity, while 'local' times play the role of victims, irreducibly complex 'actualities' forced into modernity's reductive, procrustean frame. But what exactly is 'local time'? Local time is a time understood to envelope an entire geographical (urban, local, parochial) area, including—yet independently of—the diverse interests it contains. In principle, therefore, local time is distinguished from national time primarily in terms of scale – first, of its geographical extension (which could envelop the entire territory of the state only in the nineteenth century), and second, of the 'social' entity seen to embody its historical quality (a 'social' unit made up of 'urban' rather than 'national' citizens, say).<sup>60</sup> In other words, the two temporal frames are exactly the same in *kind*, and only different in *degree*. Both involve the postulation of a purely *secular* present (though, as we will be reminded in the following chapters, also a *historical* one) which can be 'extended' so as to envelope several spaces (and times).

So if the national time instituted through the Victorian railways, generally speaking, only furthered a development that had already been underway for centuries, then how did local time develop in the first place? And how did secular time feature in this? Following the exemplary work of Paul Glennie and Nigel Thrift on everyday practices of time measurement between 1300 and 1800, a few closely related aspects of the institution of local time might be highlighted: the emergence of a single time signal representing the city as a whole rather than specific interests within it; the shift in time signalling by aural means to visual means; and the shift in people's time reading skills in their everyday life.<sup>61</sup> All of these, as we shall see below, gradually came to embed a conception of time as abstract, isochronic, and independent of worldly change.

Before the seventeenth and eighteenth centuries, time signalling was primarily aural;<sup>62</sup> medieval clocks told (or tolled) the time with bells.<sup>63</sup> Rather than being co-ordinated to strike at equal hours, bells were rung manually to cue a number of communal events or occasions: the opening of city markets, the approaching of a church service, working times for various guilds, royal births, mustering militia to face imminent dangers, and calls for celebration after military victories. Signals were distinguished

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<sup>60</sup> This will be examined more closely in chapter 4.

<sup>61</sup> Paul Glennie and Nigel Thrift, *Shaping the Day*.

<sup>62</sup> *Ibid.*, 141.

<sup>63</sup> Even in 1500, only a minority of public clocks had visual dials. *Ibid.*, 226.

by the location of the bell, and by the patterns and styles of striking ('sharply,' 'hard,' 'softly'), which again could vary considerably between parishes. Thus, territorial 'acoustic regimes' came to mark internal distances and geographical borders of various parishes. Based on sound, these 'regimes' could envelop extensive areas, and the shared experience of the local sonic environment partly constituted the identity of the people—both individuals and groups—located within the soundscape.<sup>64</sup> To quote Alain Corbin, in urban areas, 'the characteristic sound of all the bell signals together could itself [shape] the habitus of a community or, if you like, its culture of the senses.' In urban areas, where different churches' soundscapes overlapped and the noise tended to confuse parochial boundaries, the resultant acoustic chaos could become an important part of the city's characteristic 'sonic environment,' or 'acoustic profile.'<sup>65</sup> In 1602, Philip Julius, Duke of Stettin-Pomeria, visited London, and was amazed by its distinctive sound.

On arriving in London we heard a great ringing of bells in almost all the churches going on very late in the evening, also on the following day ... we were informed that the young people do that for the sake of exercise and amusement, and sometimes they lay considerable sums of money as a wager, who will pull a bell the longest or ring it in the most approved fashion ... the old Queen is said to have been pleased very much by this exercise, considering it as a sign of the health of the people.<sup>66</sup>

There were also occasional deliberate attempts to 'totaliz[e] the [urban] field of sound,' bringing the acoustic cacophony of the city as a whole into a harmonious unity.<sup>67</sup> As Bruce R. Smith writes, '[o]n ceremonial occasions there were attempts on a larger scale to hear the city as a whole. The installation of a new Lord Mayor, for example, gave foreign visitors a chance ... to hear its ordinary chaos of sounds brought into consonance.'<sup>68</sup> The cacophony of different sounds became a mark of civic identity.

Gradually, however, the function as marker of civic identity was taken over by new public signals based on equal hours, even if a range of different groups within the city

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<sup>64</sup> Ibid., 82–3. Alain Corbin, *Village Bells: Sound and Meaning in the Nineteenth Century French Countryside*, trans. Martin Thom (Basingstoke: Papermac, 1999), xix.

<sup>65</sup> Bruce R. Smith, *The Acoustic World of Early Modern England* (Chicago and London: The University of Chicago Press, 1999), 50–58.

<sup>66</sup> Quoted in *ibid.*, 52–3.

<sup>67</sup> Ibid., 70.

<sup>68</sup> Corbin, *Village Bells*, 97. Corbin's 'history of the senses' reveals that communal identities were constituted by local bell-ringing in French rural areas long into the nineteenth century. See also Alain Corbin, *Time, Desire and Horror: Towards a History of the Senses*, trans. Jean Birrell (Cambridge: Polity Press, 1995).

still took their quotidian temporal cues from various bell signals coordinated in terms of succession rather than according to an abstract uniform time. Historian Gerhard Dohr-van Rossum has demonstrated a marked increase of public clocks in towns during the fourteenth, fifteenth and sixteenth centuries. The new mechanical style of signalling was not always immediately popular. Indeed, in many places the ringing of equal hours was at first seen as an unnecessary disturbance, and was switched of at least during the night. Nevertheless, Rossum argues that their gradual introduction reveals a pragmatic attempt to create order in the acoustic chaos.<sup>69</sup> However, according to Chris Humphrey, the introduction of equal time-signalling could often be coupled with a conscious endeavour to ‘creat[e] a new “mean time” that was public and city-owned, both for the practical purpose of organizing daily life and as symbolic of a distinctive urban identity.’<sup>70</sup> Far from being an anonymous process of modernization, this was more often than not a ‘partisan and ... conscious act of self-definition.’<sup>71</sup> In 1483, the butchers in the city of York were ordered to keep their shops open on Sundays, until ‘eight of the bell of the clock of commonalty on Ouse Bridge,’ and to close them according to the signals of their respective parish churches. This marked one of the first recordings in York of a time ‘of the clock’—that is, the clock of York—rather than (only) by the signals of various parishes and guilds. The bell on Ouse Bridge not only marked time as such; it marked the time of York specifically. Hence, as Humphrey argues, the introduction of a civic time based on equal hours—the postulation of a secular present enveloping the entire town—went together with the political establishment of urban autonomy.

The introduction of bell signals based on equal hours during the fifteenth and sixteenth centuries marks the first tentative steps towards the practice of a secular conception of time independent of particular interests, enveloping the whole town in equal measure. While all other time signals represented specific interests, the emerging civic time was abstracted from the cacophony, even while actually enmeshed in it – indeed, its regularity made it stand out. In the long run, the official signalling of equal hours gradually came to be considered a disinterested

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<sup>69</sup> Gerhard Dohr-van Rossum, *History of the Hour: Clocks and Modern Temporal Orders* (Chicago and London: The University of Chicago Press, 1996), 203.

<sup>70</sup> Chris Humphrey, “Time and Urban Culture in Late Medieval England,” in *Time in the Medieval World*, ed. Chris Humphrey and W.M. Ormrod, York Medieval Press (York: York Medieval Press and The Boydell Press, 2001), 116.

<sup>71</sup> *Ibid.*, 117.



‘background’ enveloping and measuring the accurate location of all other signals. This shift could happen in several ways. In most instances municipal clocks were granted a privileged place within the existing system. New civic clocks and bells (whether located in a church, court house, or town hall) could be singled out as decisive points of reference in cases of conflict; if in doubt, check the town clock. Gradually, writes Rossum, ‘[t]he times of council sessions, of market, or of work could be tied to the clock time signal instead of a [particular] bell signal,’ reducing the chaos itself.<sup>72</sup>

The introduction of equal hours and mechanical signalling went together with an increasing tendency to signal time by visual rather than aural means, which further consolidated the practice of secular time. Reading time had always required (and probably still does) a range of skills, and technological innovation alone does not explain changes in time conception. Glennie and Thrift show how the technological development of mechanical clocks was ‘out of step’ with most people’s expectation of what might be achieved with higher accuracy. On the one hand, despite the ability of clocks to measure equal hours, people simply did not need such high levels of precision in the coordination of their daily lives. On the other, the general capacity for the precise measurement of hours was more widespread before the so-called ‘horological revolution’ which ushered in mechanical clocks. While clock times were increasingly used as an organizational tool in both work and leisure after the mid-eighteenth century, the skills and conceptual knowledge directly related to the reading of timepieces were simply not necessary for most people.<sup>73</sup> Already in the sixteenth and early seventeenth centuries—several decades before the development of mechanical minute and second hands—compilers of almanacs presumed that readers would be familiar with minutes and even seconds.<sup>74</sup> Seventeenth-century diarists such as Samuel Pepys often sought to be specific about the time of birth or death of family members; doctors and other professionals developed complex appointment systems; facilitators of gambling activities such as horse-racing used stop watches long before

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<sup>72</sup> Rossum, *History of the Hour: Clocks and Modern Temporal Orders*, 214–15.

<sup>73</sup> Glennie and Thrift, *Shaping the Day*, 106–108.

<sup>74</sup> *Ibid.*, 249, 253–8. By then, distinguishing between ‘apparent’ (solar) and ‘true’ (horological) time also became more common.

these came to be applied in work places; whilst scientists sought to time astronomical observations, sometimes for astrological purposes.<sup>75</sup>

In their everyday lives, then, people would have been able to ‘tell the time’ drawing on a number of skills and embodied movements irrespective of their owning a timekeeper of their own or being able to ‘read’ time in an abstract register.<sup>76</sup> By the eighteenth century the division of days into hours and even minutes was pervasive in urban areas. Carriage hire rates were determined in terms of time intervals (e.g. one shilling for 45 minutes); the daily departure and arrival times of post and passenger coaches were advertised and timetabled according to the hour; and the movement of postmen was coordinated with these timetables. Together these created a complex mixture of indirect time-cues that coordinated people’s everyday conduct independent of specific technological skills and practices related to the official time signals themselves. In eighteenth-century Bristol, the post offices were open between 07.00 a.m. and 09.00 p.m., its postmen making deliveries at 8.30 a.m., 12 p.m., and 5.30 p.m. These times were coordinated with the coach timetable and letters addressed to other cities had to arrive at the office in time for the coach’s departure.<sup>77</sup> Effective use of the postal system hence required some sense of ‘timing’ and tacit understanding of when to do what, regardless of who or how many owned timepieces or held expert knowledge.<sup>78</sup>

While there was no unidirectional or unequivocal shift in time conception following technological innovations of a horological sort, Glennie and Thrift argue that between 1300 and 1800, most towns in England saw a slow and general interweaving of visual with aural representations, and with it a moderation in citizens’ sensory experience

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<sup>75</sup> Ibid., 264–72.

<sup>76</sup> Glennie and Thrift demonstrate thoroughly that practices and abilities commonly associated with clocks pervaded the lives of ‘ordinary’ people as far back as the fourteenth century. In addition to well-rehearsed notes from expert scientific communities (224-5), sources such as court depositions (212-15), recipes (223-4), letters passed among elite households (184-6, 215-16), school routines (226-231), and diaries (189-92, 194-212) reveal a familiarity with clocks and context-specific coordination skills across the population spectrum as far back as the 14th and 15th century, enabling quotidian navigation between institutional times, seasons, trading hours, wage payment, etc.. Ibid., 181–237. ‘Regulations using clock time were novel only in that mechanical clocks provided the metric, otherwise the regulations paralleled earlier restrictions drawing on ‘natural’ markers (sunrise, noon, sunset, and finer qualitative distinctions in daylight), and on available time-signals, especially the audible ringing of canonical hours around monastic communities.’ Ibid., 186.

<sup>77</sup> Glennie and Thrift, *Shaping the Day*, 106.

<sup>78</sup> This rhythm would again vary according to for example the geographical density of post offices (which could vary greatly even within the city borders), and obviously even the individual postmen. Ibid., 120. This in opposition to the famous article by E.P. Thompson, who argued that “the availability of precise clock time” depended on “who owned...clocks and watches.” See E.P. Thompson, “Time, Work-discipline and Industrial Capitalism,” *Past and Present: A Journal of Historical Studies* 57, no. 38 (1967); Paul Glennie and Nigel Thrift, “Reworking E.P. Thompson’s ‘Time, Work-Discipline and Industrial Capitalism,’” *Time & Society* 5, no. 3 (1996): 275–299; Glennie and Thrift, *Shaping the Day*, 131.

and embodied habits. There are important differences between reading time aurally or visually. Aural signals envelop whole bodies; sound waves mediated by the air unify whatever is within their spatial reach.<sup>79</sup> The practice of decoding visual signals, by contrast, demands an active (even bodily) turning and giving of attention—it requires sophisticated skills of mental abstraction.<sup>80</sup> Aural time signals interrupt from every direction at once, physically impacting human bodies without their active participation. Visual time signals, by contrast, require the ability to imagine time ‘being there’ without such interruptions. In contrast to bells, a dial—especially if featuring both hour and minute hands—offers an understanding of time as having a continuous presence (the hand on most single-handed dials moved in one continuous movement rather than ‘jumps,’ but mechanical clocks counting equal hours increasingly measured time as a passage of small units rather than dividing long periods into shorter ones). Old water clocks had seemed to ‘extract’ time from the world itself.<sup>81</sup> By contrast, mechanical timepieces signalling time by visual means gave the impression of measuring a time independent of the world. Time passed, even when it did not measure anything in particular, even when one could not sense its passage.

Again, this does not entail that secular time simply replaced other forms of time with the introduction of visual dials on churches and public buildings during the sixteenth and seventeenth centuries.<sup>82</sup> As we have seen, people did not need access to visible clock dials in order to ‘know’ the time. However, according to Rossum, mechanical clocks measuring equal hours were still important in that they ‘expanded the physical space in which a temporal order was applicable beyond the zone delineated by acoustic or even optical time indication: they made possible the coordination of temporal fixations independent of the time signal.’ The visual signalling of equal hours carried the assumption that time existed even apart from these signals, and so could be measured even beyond the reach of the signal itself. This is fundamentally different from the assumption that the parish border lies wherever one can no longer

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<sup>79</sup> Michel Serres has explored the ubiquity of aural compared to visual circumstances in his work on the senses: ‘...[S]ound, through its very ubiquity, unites space in its entirety and makes of it a single phenomenon perceptible to all, whereas sight always remains multiple...[Hence, we]...live in noises and shouts, in sound waves just as much as in spaces...[p]lunged, drowned, submerged, tossed about, lost in infinite repercussions and reverberations and making sense of them through the body.’ Michel Serres, *The Five Senses*, 108, 141.

<sup>80</sup> Glennie and Thrift, *Shaping the Day*, 42.

<sup>81</sup> Danielle S. Allen, “The Flux of Time in Ancient Greece,” *Daedalus* 132, no. 2 (2003): 62–73.

<sup>82</sup> Glennie and Thrift, *Shaping the Day*, 175–6.

hear the church bells. It requires a conception of time as abstract from the world, enveloping everything in equal measure—that is, a conception of secular time. Notwithstanding the unlimited geographical reach of this time, local practices often limited it to the urban peripheries or the region. Only towards the late eighteenth century, Rossum notes, were people (apart from seamen and navigators) becoming consciously aware of the possibilities of coordination also beyond ‘the boundaries of the “urban monads”’.<sup>83</sup> As we will see in chapter 4, the railways became essential to this shift.

### *Periodical News*

As will be discussed in chapter 5, it was not until the 1830s when public opinion became a key, unavoidable referent of political action and legitimacy. Nonetheless, from the mid-seventeenth century, there developed a range of inter-connected micro-practices embedding notions akin to what Taylor describes as the modern ‘public sphere’ – a collectively shared space created by multiple media in which a common opinion is formed through active discussion, and made to constitute a benchmark of political legitimacy.<sup>84</sup> In the practices associated with the public sphere, argues Taylor, the ‘people,’ ‘nation,’ or ‘public’ is implicated as a single and synchronous whole, independently of—indeed ontologically prior to—its political constitution. On this assumption, the basis for policy is merely the on-going activity of the collective itself, in and through secular time.

Although pre-1640 England certainly exhibited a complex and varied infrastructure for the transmission and communication of political information and debate—ballads, private letters, and so on—historians generally locate the beginnings of ‘public opinion’ and a corresponding public sphere in the mid-seventeenth century.<sup>85</sup> In his influential thesis on the eighteenth-century emergence of a bourgeois public sphere, philosopher Jürgen Habermas famously postulated it as primarily an elite

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<sup>83</sup> Rossum, *History of the Hour*, 282.

<sup>84</sup> See in particular Taylor, *A Secular Age*, 185–211.

<sup>85</sup> Joad Raymond, ed., *News, Newspapers, and Society in Early Modern Britain* (London and Portland, OR: Frank Cass & Co Ltd, 1999). Recently, some historians have sought to push these origins further back. Peter Lake and Steven Pincus have argued that the notion of a public opinion has important origins in the Elizabethan court, where it would be invoked as a rhetorical device. Peter Lake and Steven Pincus, “Rethinking the Public Sphere in Early Modern England,” *Journal of British Studies* 45, no. 2 (2006): 270–292. See also Sandra Clark, *The Elizabethan Pamphleteers: Popular Moralistic Pamphlets, 1580-1640* (Madison, NJ: Fairleigh Dickinson University Press, 1983); Cyndia Susan Clegg, *Press Censorship in Elizabethan England* (Cambridge et al.: Cambridge University Press, 2004).

phenomenon.<sup>86</sup> By contrast, recent historical scholarship has emphasized the material infrastructures and performances that—however unintentionally—facilitated continuous debate and direct references to ‘public opinion’ as a recognized part of political processes, long before such ideas were expressed in the formal theories of Whig writers such as John Locke or Algernon Sidney.<sup>87</sup> The years during and following the Civil War saw numerous developments on this level, both extending the scope and changing the content of political debates formerly reserved for elites initiated in official secrecy.<sup>88</sup> Informal distribution networks for private correspondence emerged, independently of the official postal system;<sup>89</sup> petitions—a traditional mode of public participation in political life—began referring explicitly to ‘public opinion’ as a tactical measure in a new factional mode of politics;<sup>90</sup> and the printing and circulation of ballads, satirical dialogues, and woodcut pictures was professionalized, while the content of these popular genres—presented orally in taverns and public houses—began centring on contemporary political issues.<sup>91</sup> Crucially, as far as this thesis is concerned, changes were occurring in the practices associated with the notion of ‘news,’ and in particular one form of their material mediation: the newspaper.

The emerging news networks—the printed periodicals as well as the range of institutions associated with their popular consumption—carried precisely the implications Taylor associates with a modern public sphere. Seventeenth- and eighteenth-century newspapers, argues Joad Raymond, ‘constructed the basis of a series of interlocking and overlapping spheres of political debate and action in different communities of readers.’<sup>92</sup> Indeed, they played an important role in what has

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<sup>86</sup> Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (Cambridge, MA: Polity Press, 1989).

<sup>87</sup> See in particular the historiographical reviews and discussions in David Zaret, *Origins of Democratic Culture: Printing, Petitions, and the Public Sphere in Early-Modern England*, Princeton Studies in Cultural Sociology (Princeton, NJ: Princeton University Press, 2000), 1–43; Dagmar Freist, *Governed by Opinion: Politics, Religion and the Dynamics of Communication in Stuart London, 1637-1645*, International Library of Historical Studies (London and New York: Tauris Academic Studies, 1997), 1–25.

<sup>88</sup> For a discussion of ‘news networks’ in this period, see the essays in Joad Raymond, ed., *News Networks in Seventeenth-Century Britain and Europe* (London and New York: Routledge, 2006).

<sup>89</sup> Howard Robinson, *Britain’s Post Office: A History of Development From the Beginnings to the Present Day* (London: Oxford University Press, 1953), 1–50.

<sup>90</sup> Zaret, *Origins of Democratic Culture: Printing, Petitions, and the Public Sphere in Early-Modern England*, 217–265.

<sup>91</sup> Freist, *Governed by Opinion*, 125–176.

<sup>92</sup> Raymond, *News, Newspapers, and Society in Early Modern Britain*, 130.

been dubbed the ‘urban renaissance’ of the period.<sup>93</sup> As Kathleen Wilson affirms, the expansion of news networks was central to the eighteenth-century mobilization of ‘the extra-parliamentary nation,’ in London and provincial towns alike.<sup>94</sup> Likewise, as C. John Sommerville argues in his somewhat moralizing work on the emergence of periodical news during the seventeenth and eighteenth centuries, specific assumptions about temporality and autonomy were embedded in the novel phenomenon of periodical publication.<sup>95</sup> The gradual shift from sporadic publication under changing titles to regular and periodical publication under a single title implied both a regular series of temporal intervals—embodied and displayed in the paper pages— independent of their diverse and dynamic content; as well as a ‘public’ whose opinion became an increasingly recognized political factor in ‘society’s’ progressive movement.

Of particular importance in this process was the promise of regular, serial publication. Serial publications appeared in London as early as the 1590s, and by the 1620s pamphlets bearing titles such as *The Weekly News* promised regular periodicity.<sup>96</sup> The latter were, however, designed and sold as ordinary books, their front page displaying their title alone: *Currant*, *Herald*, and *Mercury*, for example.<sup>97</sup> Furthermore, booksellers would occasionally alter the pamphlet title (a common sales strategy), leaving the printed sequence of dates the only remaining sign of continuity.<sup>98</sup> During the Civil Wars, several changes occurred that suggest an emerging dynamic of periodicity. The sheer number of printed material during these decades was unparalleled before 1640. Typographically, the size of the title-matter was reduced, so as to make ‘news’ available at a single glance on the front page. These ‘newsbooks’

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<sup>93</sup> Peter Borsary, *The English Urban Renaissance: Culture and Society in The Provincial Town 1660-1770* (Oxford: Clarendon Press, 1989).

<sup>94</sup> Kathleen Wilson, *The Sense of the People: Politics, Culture and Imperialism in England, 1715-1785*, Past and Present Publications (Cambridge: Cambridge University Press, 1998), 11.

<sup>95</sup> C. John Sommerville, *The News Revolution in England: Cultural Dynamics of Daily Information* (Oxford: Oxford University Press, 1996).

<sup>96</sup> We should, as Joad Raymond argues, guard against constructing teleological narratives of a seamless evolution from curantos via newsbooks to later newspapers. These were different genres produced for different readerships. Joad Raymond, *The Invention of the Newspaper: English Newsbooks 1641-1649* (Oxford: Clarendon Press, 2005). For predecessors to serial news publications in the postal networks, see Marcus Nevitt, “Ben Johnson and the Serial Publication of News,” in *News Networks in Seventeenth-Century Britain and Europe*, ed. Joad Raymond (London and New York: Routledge, 2006), 51–66.

<sup>97</sup> Allen Hutt, *The Changing Newspaper: Typographic Trends in Britain and America 1622-1972* (London: Gordon Fraser, 1973), 13.

<sup>98</sup> Stuart Sherman, *Telling Time: Clocks, Diaries, and English Diurnal Form, 1660-1785* (Chicago & London: Chicago University Press, 1996), 117.

bore *two* dates on their title page, to signal the time span covered.<sup>99</sup> Already at this point, then, these publications embodied the notion of an empty temporal interval between two abstract points, within which events were unfolding. In fact, periodical publications became so common that from the 1630s even the government had come to consider them an ordinary and legitimate feature of political practice and communication. From 1665, just when it was putting in motion its extensive surveillance system, the Restoration state itself published its own newspaper *The London Gazette* on a twice-weekly basis.<sup>100</sup>

Crucially however, there were many obstacles to establishing the promised regularity. One was simply the weather. In the late seventeenth and early eighteenth centuries much newspaper content was lifted not only from London newsletters, but from Dutch or French newspapers (which, as foreign, were considered more or less immune to the charges of triviality and vulgarity that often accompanied the printing of local rumours).<sup>101</sup> News was delivered by post, which meant it was transported by carriage across the continent, by ship across the channel, and then again by carriage to the printer. Thus, its flight was ever liable to be disrupted by atrocious weather or other unforeseeable hold-ups. Early seventeenth-century news thus had a ‘seasonal’ quality: ‘more plentiful during the summer when travel was easier and sparse during the winter.’<sup>102</sup> Even in fine weather, news was often more plentiful when there was much travelling for other reasons, such as when local gentry travelled to regional assizes or to London to settle legal matters.

Another obstacle was technological. James Sutherland has described how the challenges of the hand press impacted on the presentation of news on the page:

The printer had to pick each letter for each word out of its appropriate ‘box’ in the ‘case’ or receptacle in which the type was kept, place it in on his composing stick, and then go through the same movements with the next letter, and the next. While the process was the same for a newspaper as for a book, the news paper had to appear on time at regular weekly, twice-weekly, thrice-weekly, or daily intervals, and the copy for the current issue was coming in all the time the printer was at work. In reckoning the

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<sup>99</sup> Daniel Woolf, “News, History, and the Construction of the Present in Early Modern England,” in *The Politics of Information in Early Modern Europe*, ed. Brendan Dooley and Sabrina Baron, Routledge Studies in Cultural History (London and New York: Routledge, 2001).

<sup>100</sup> The Gazette was designed in the form of a folio half-sheet rather than a book, with a single title heading two columns of text. Hutt, *The Changing Newspaper*, 15–17.

<sup>101</sup> James Sutherland, *The Restoration Newspaper and Its Development* (Cambridge: Cambridge University Press, 1986).

<sup>102</sup> Raymond, *The Invention of the Newspaper*, 5.

period available, we have to allow not only for the manual type-setting, but for the inking, the pulling of each sheet, and the time required for the wet sheets to dry. In addition, some time might be lost in correcting printer's mistakes . . . in practice the low speeds that could be attained and sustained in manual type-setting meant that no sooner was a paper selling on the streets than the printer had begun to set the next issue. He could not wait until all the news were assembled and arranged in an orderly and systematic manner by himself or by someone else; he had to start with what he had, or he would never keep ahead of the clock. [Hence,] a piece of news in an eighteenth-century newspaper is where it is because that is where the printer had got to when it reached him.<sup>103</sup>

Assembling the news was thus a painstaking process; as we shall see, it would not be until the 1810s and 20s, with the advent of partial automatization, that this practice would be fundamentally transformed.

The combination of weather conditions and technical limitations with the promise of frequent and regular publication had numerous consequences that would become vital to the gradual constitution of a conception of secular time, and with it the notion of a 'public.' First, as we have seen, the printer had to prepare as much as possible of the uniform typographical material—titles and columns, for instance—before news arrived to the printing office. This created a 'frame,' so to speak, in which the news content could be incorporated. Regular publishing—especially if it was supposed to be frequent—required, in other words, a specific mode of typographical organization. The first *daily* newspaper appeared with Samuel Buckley's *The Daily Courant* in 1702, and introduced at least three important innovations in this respect (see figure 3.2).<sup>104</sup> First, Buckley cited his foreign sources (from which he translated foreign news), with the implicit effect that a multitude of *visibly* temporally and geographically separated events were gathered under a single rubric, printed on a single transportable object, and hence turned into instances on a shared background. Secondly, he attempted to organize the news so that foreign news was presented first, and local news last (the latter having been received by the typographer at the time nearest publication). This, argues Stuart Sherman, created a 'centripetal' movement through time and space, as the reader 'moved' from events far away and comparatively long ago towards times and spaces more immediate to the act of reading. Thirdly, Buckley introduced a visible constant in the current of news events by locating the current date at the top of the pages (as well as the imprint of the local

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<sup>103</sup> Sutherland, *The Restoration Newspaper and Its Development*, 225–7.

<sup>104</sup> Sherman, *Telling Time*, 109.



bookseller at the bottom of the verso). Being the date of the present day, it was asymptotic—it was ‘approached but rarely broached by the events reported.’<sup>105</sup>

In various ways, all of these innovations invested a concept of secular time in the material pages of the newspaper: the gathering of multiple times within a single ‘expanded’ interval.<sup>106</sup> Indeed, the organization of news items in terms of a measureable temporal ‘distance’ was premised on time being isochronic, as was the regularity of successive issues; and continuities such as recurring titles or names of local booksellers provided a frame in which the reported events appeared to be synchronous. The newspaper page thus came to embody a disinterested interval of empty, homogenous time, in which a variety of political opinions might be expressed, and where an equal variety of events might occur. Through the eighteenth century, newspapers increasingly distinguished themselves from other print media precisely in this respect. In the latter half of the century, for example, it became more common to print records of parliamentary proceedings and whole speeches given by named MPs. These allowed the newspapers to become both independent reporters of and interested commentators on political events. On the one hand, named politicians could be evaluated (and possibly ridiculed); on the other, editors began feeling pressure to report accurately what had been said.<sup>107</sup> In the ‘accurate’ reports on parliamentary debates, the newspaper reader was invited into the very current of events, where the unknown future was still ‘in-the-making.’ Yet this was only made possible by granting a permanency, and institutional authority, to the abstract interval of secular time in which the debate was taking place, making this outlast any utterance or specific participant contained within it.

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<sup>105</sup> Ibid., 119.

<sup>106</sup> Before the calendar reform in 1752 this present moment would have been defined in terms of a calendar still inhabited exclusively by Britain. This could cause some confusion and even national embarrassment. Sherman suggests that ‘[s]ince all its continental source papers were datelined in the New Style calendar, eleven days later than in England’s Old Style, many of the dates that headed reports from Europe were subsequent to that on the top of the paper. With every such discrepancy the English reader would be reminded (however subliminally) of the nation’s calendrical insularity and idiosyncrasy.’ Ibid.

<sup>107</sup> Though contemporary letters and papers are full of accusations of other newspapers being political partisan hacks, there is little proof that this was the case. In fact, the evidence suggests that the newspaper business was a lucrative one, and not at all dependent on political subsidy. Newspapers were business ventures dependent on securing a reliable customer base, and far from all editors showed any active interest in politics. Nevertheless, newspapers taking a clear political stand consolidated a specific readership, and often did better financially than more moderate newspapers, whose attempted neutrality could be seen as a ‘lack of principle’. See e.g. Hannah Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England*, Oxford Historical Monographs (Oxford: Oxford University Press, 1998).



Figure 3.2 – Regular typographical formats: front pages of *The London Chronicle*, December 21, 1771 (left) and *The Daily Courant*, March 11, 1702

This brings us to the second aspect of how secular time was gradually embedded in the growing news networks, namely the emerging notion of a reading ‘public’ conceived as a single, contemporaneous entity at once observing and participating in the current of reported events. In the 1620s ‘news’ had been commonly published under the rubric of recent history; but during the turmoil of the Civil War pamphlet writers began drawing a distinction between the permanent nature of history and the ephemeral, not to say vulgar, nature of ‘news.’ Within the empty secular present established by the newspaper page, events were still in motion, and so could be engaged with before slipping into the past. As one scholar has remarked, ‘[t]he literate public of the 1640s were aware that the events through which they were living were their final disposition.’<sup>108</sup> Through establishing an empty interval in which events took place and could be viewed as if from an independent and detached vantage point, readers were allowed somehow to step into the very ‘current’ of events, possibly even altering their own actions (or indeed inaction).<sup>109</sup> Thus, perhaps

<sup>108</sup> Woolf, “News, History, and the Construction of the Present in Early Modern England,” 96.

<sup>109</sup> As will be developed in chapter 5, this interplay between static ‘container’ and dynamic content suggests that the temporal dynamic of periodicity implies a dialectic of secular and historical time. The asymptotic date not only

paradoxically, the Restoration government's newspaper, for example, implicitly relied on the active contribution of its readership, in complete accord with the 'culture of incessant public adulation' ingrained in the dynamic of periodicity itself.<sup>110</sup> According to Bob Harris, by the 1740s the newspaper press was widely accepted as 'vital to the exercise of the people's alleged right to examine "the measures of every administration"'.<sup>111</sup> Hannah Barker affirms that the idea of the press as a means for the public's freedom to judge on-going political processes was 'firmly embedded in popular rhetoric'.<sup>112</sup> The 'public' was becoming—at least rhetorically—an acknowledged participant in the contemporary political affairs of state and 'society.' Crucially, the combination of technical restriction and promised regularity was central to the emergence of the 'public' as simultaneously detached observer, active participant, and observed fact – the creation of 'the public' was in many ways a human-technological achievement. Early eighteenth-century newspapers promising frequent regular publication were dependent on a continuous flow of news and information into the printing office. This flow was, however, so unreliable (again, largely because of changeable weather), that many editors realized they had to find ways of making sure the 'open space' left on certain pages would be filled even in the case of unforeseen difficulties. By the 1720s, most established newspapers had learnt to anticipate the potential absence of foreign news by keeping a file of substitutes, which could be drawn upon as the need arose.<sup>113</sup> Publications such as the *Scottish Tatler* (from 1709) and *The Spectator* (from 1711) consciously left blank spaces on some pages, encouraging readers to contribute their own news before passing the newspaper on to friends or relatives elsewhere. In other words, the newspaper form itself implicitly anticipated the reader's direct contribution its content. The reader was expected and even encouraged to express his or her opinion in relation to the news, or indeed to add news for the benefit of other readers. The distribution of newspapers was already dependent on the postal system, and it is perhaps not surprising that the new genre of news reporting often intermingled with styles of personal correspondence. Ichabod Dawks, metropolitan bookseller, printer and editor of

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measures the extent of an empty interval; it also leaves the reader hanging, so to speak, in a kind of suspension: there must be more qualitative development before the publication of the next issue.

<sup>110</sup> Lake and Pincus, "Rethinking the Public Sphere in Early Modern England."

<sup>111</sup> Quoted in Hannah Barker, *Newspapers, Politics and English Society, 1695-1855*, Themes in British Social History (London: Pearson Education Limited, 2000), 13.

<sup>112</sup> Ibid.

<sup>113</sup> Sutherland, *The Restoration Newspaper and Its Development*, 123–9.

*Dawks's News-Letter* (1695-1716), went so far as to invent a printed type that simulated older manuscript types, while also leaving blank spaces for readers to insert their own correspondence. He thus appealed to wide, cross-generational audiences, both in London and in the provinces.<sup>114</sup> The cheapness of printed news appealed to younger and less wealthy readerships, whereas the personal tone and style appealed to older readers familiar with written newsletters. On the pages of early periodical publications, the 'public' was implied as consisting of the sum individuals reading (and writing their own views on) the newspaper page. The public became an active part of the newspapers' content, as well as a detached observer of that content.

Exactly who was to be included in this 'public' was of course ambiguous. The 'public' was construed differently in London than in the provinces. In general, the London 'public' was more inclusive than its provincial equivalent, simply because urban readerships were more diverse and generally boasted a higher rate of literacy.<sup>115</sup> One estimate suggests that there were, at any time during the 1780s, 'at least nine daily newspapers (appearing six times a week), eight tri-weekly, and approximately nine weekly papers in London at any time.'<sup>116</sup> Another estimate suggests that London held a newspaper readership of 250,000, a sizeable portion of its 750,000 population.<sup>117</sup> Although high prizes were matched to the higher classes, the actual readership in fact extended across class borders through the lending, hiring, and public reading of newspapers.<sup>118</sup> Thus, the 'public' as conceived and constructed by the London papers generally was independent of particular interests, propertied or otherwise. In the provinces, by contrast, the 'public' most commonly referred to land-owning elites. By the 1760s, however, newspapers had become an 'essential part of country life.'<sup>119</sup> Most provincial towns had coffee houses where a wide range of

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<sup>114</sup> Sherman, *Telling Time*, 123.

<sup>115</sup> Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England*, 177.

<sup>116</sup> It is difficult to estimate how many newspapers were actually printed, as the relevant Post Office does not exist anymore, so there are no authoritative sources. *Ibid.*, 23.

<sup>117</sup> See e.g. Marjorie Plant, *The English Book Trade: An Economic History of the Making and Sale of Books*, 2nd ed. (London: George Allen & Unwin Ltd, 1965), 200–3. This number is rendered uncertain, however, by the fact that those who did read newspapers often read several, while single issues were circulated among unknown numbers of people. Furthermore, the relationship between readership and literacy is hard to determine, both since ability to read does not imply ability to write, and because newspapers were often read aloud

<sup>118</sup> One indication of this can be found in the example of advertisement. When businessmen invested in newspapers, they could place advertisements at reduced rates, and some newspapers (e.g. *Morning Herald*) advertised not only for servants wanted, but also carried advertisements from servants seeking employment. This suggests that both ends of the social scale were found among the readership. Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England*.

<sup>119</sup> G.A. Cranfield, *The Development of the Provincial Newspaper, 1700-1760* (Westport, Connecticut: Greenwood Press, Publishers, 1962), v.

newspapers would be available, and where new newspapers would be sent in attempts to establish readerships. In addition, provincial newspapers were distributed through a complex network involving local presses, agents in local towns, and walking carriers who delivered papers to smaller villages and rural areas.<sup>120</sup> Tri-weekly London newspapers were sent by coach to the provinces, and provincial papers sent back to the capital, both timed according to the post coach departure. Some of these networks were organized so that readers could receive the newspaper on the evening of the day it had been printed.<sup>121</sup> Indeed, as Hannah Barker argues, ‘the way in which provincial newspapers were distributed and the timing of their publication decided appear to have been carefully calculated.’<sup>122</sup> Barker suggests that one explanation for the relative success of such a high number of provincial newspapers in certain regions could be the overlapping and indeed complementary frequencies at which they were published.

Thus, the temporal rhythms inherent in the distributive networks themselves became central to defining who was the ‘public.’ The distribution of several newspapers within overlapping geographical areas, and at varying frequencies, provided not a single synchronic pulse enveloping the whole ‘nation’, but rather something like a cacophony of intersecting and even competing local and regional temporal rhythms. The present, or empty interval, carried by a twice-weekly paper, for example, was in a sense more ‘spacious’ than that of a thrice-weekly publication, in the sense that the temporal distance between each issue was longer – three days rather than two. This affected both the general ‘voice’ of the paper, and the expectation and inner posture of the reader.

Hence, several factors ranging from changing weather, speed and range of distribution, and whether the readership was metropolitan or provincial, were important in defining who and what could be included within each (secular) present. Yet, however extensive or limited, a secular interval was nevertheless implied by the newspaper’s typographical form and the infrastructure of news production and distribution. The typographical limits of the hand press, as well as those imposed by

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<sup>120</sup> Cranfield traces some of these networks, which remained more or less the same until the much later development of the railways. *Ibid.*, 190–206. C.Y. Ferdinand has provided a rare study of a single provincial newspaper from this period, tracing its multiple links to commerce, state, distribution media, and so on. C.Y. Ferdinand, *Benjamin Collins and the Provincial Newspaper Trade in the Eighteenth Century* (Oxford: Clarendon Press, 1997).

<sup>121</sup> Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England*, 118–120.

<sup>122</sup> *Ibid.*, 97.

the relative unreliability of the distribution networks, served to secure a strong sense of continuity and regularity in that the same form kept appearing at regular intervals, while the content constantly changed. The most common typographical format allowed by the hand press was a single title above three or four columns of text.<sup>123</sup> During the 1780s, the front page of all London newspapers was occupied mainly by advertisements, which the printer would have had ready at hand before the news arrived from abroad.<sup>124</sup> The newspaper pages, embodying the empty secular interval delimited by the preceding publication and the asymptotic date printed on their front page, appeared at regular intervals and contained all the various movements of the world while remaining independent of them. Chapter 5 examines the technological shifts—such as the telegraph network—that further consolidated the daily newspaper as the (increasingly national and indeed global) public’s primary site for consumption of and participation in current events. Furthermore, as we shall see, during the early nineteenth century, ‘public opinion’ went from being a mere part of political debates to become an ultimate authority before which all political agents had to answer.

### *Money and the State*

Towards the end of the seventeenth century, the gradual emergence of a public sphere coincided with the introduction of economic matters as a topic of public discussion (though the modern meaning and autonomy of the economic was itself only coming into being at this point and via just these processes).<sup>125</sup> Increasingly, newsletters included sections with information about international exchange rates, market prices, and shipping, all presented under a single rubric as if belonging to the same sphere. After the mid-eighteenth century, these sections increasingly came to be seen as providing mere ‘facts’ about which readers might have differing ‘opinions.’ In other words, the genres that came to carry the opinions of the reading public also helped to naturalize the ‘economy’ as an object of discussion, as something that existed

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<sup>123</sup> Hutt, *The Changing Newspaper*, 19.

<sup>124</sup> In cases of particularly important events, news held priority over advertisement, which suggests that readers viewed newspapers primarily as a source of information about politics and current events. Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England*.

<sup>125</sup> Steven Pincus, “Neither Machiavellian Moment nor Possessive Individualism: Commercial Society and the Defenders of the English Commonwealth,” *The American Historical Review* 103, no. 3 (1998): 705–736; Larry Neal, “The Rise of a Financial Press: London and Amsterdam, 1681–1810,” *Business History* 30, no. 2 (1988): 163–178; Steven Pincus, “The State and Civil Society in Early Modern England: Capitalism, Causation, and Habermas’s Bourgeois Public Sphere,” in *The Politics of the Public Sphere in Early Modern England*, ed. Peter Lake and Steven Pincus, Politics, Culture and Society in Early Modern Britain (Manchester and New York: Manchester University Press, 2007), 213–231.

independently of the debates about its nature and state.<sup>126</sup> Following Taylor, we might say that the ‘economy’ now began to be seen—at least by the participants in these discussions—as an autonomous sphere operating according to a set of immanent mechanical laws, one ‘which could in principle suffice to itself, if only disorder and conflict didn’t threaten.’<sup>127</sup> In Taylor’s terms, its implicit order was no longer one of cosmic hierarchy and participation, but rather one of ‘good engineering design;’ the system functioned by an unseen mechanism by which each individual’s self-love is transformed by a Providential ‘invisible hand,’ for the mutual benefit for all.<sup>128</sup> A vision of such mutual benefit emerging from informed competition required that economic information be made readily available. Hence, when the Restoration state (despite its strong censorship) protected the emerging phenomenon of ‘coffee houses’—sites where the urban middle classes read newspapers and discussed political and commercial matters—it thereby helped constitute a sphere within which the state itself could be perceived as merely instrumental. No longer mediating communal identities or meanings, one of its primary tasks was now to police the immanent mechanisms of the economy.

The connection between state power and economic practices in the seventeenth and eighteenth centuries has been widely commented upon by historians. ‘Between 1688 and 1714,’ argues John Brewer, ‘the British state underwent a radical transformation, acquiring all of the main features of a powerful fiscal-military state: high taxes, a growing and well-organized civil administration, a standing army and the determination to act as a major European power.’<sup>129</sup> During the centuries preceding the nineteenth, the ‘mercantilist’ assumptions underpinning the connection between state power and population growth, as well as commercial activities beyond the domestic realm – such as the East India and Royal African companies – meant that the state was expected to ensure and protect economic interests, both at home and abroad. British naval power and commerce were two sides of the same coin, so to speak. There thus emerged unprecedented infrastructures, providing new ways for the state to mobilize wealth for financing military activity.

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<sup>126</sup> Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (London: University of Chicago Press, 1998), 29–91.

<sup>127</sup> Taylor, *A Secular Age*, 181.

<sup>128</sup> *Ibid.*, 177–81.

<sup>129</sup> Brewer, *The Sinews of Power*, 137.

Even so, as J.C.D Clark and others have argued, the forms and moral orders associated with the *ancien regime* remained pervasive in most people's everyday life. Indeed, as Joanna Innes has suggested, Brewer's fiscal-military state apparatus had only a sporadic administrative presence at the local level, which remained in the grip of civic and landed elites, without anything in the way of central oversight or interference (in fact, as Innes also notes, the distinction between 'central' and 'local' only dates to the early Victorian period).<sup>130</sup> Nevertheless, beyond increased levels of taxation, money was an important means of interaction between the state and its citizens. For instance, partly because of the domestic limitations of state bureaucracy, citizens had long been engaged in an extensive and complex system of monetary fines and rewards.<sup>131</sup> Throughout the eighteenth century, the government increasingly offered monetary rewards to ordinary citizens who assisted the state in dealing with criminal behaviour.<sup>132</sup> Monetary policies of this sort were not simply imposed from 'above,' but developed together with, and were indeed embedded in, already existing hierarchical orders and relations.<sup>133</sup> Indeed, during the seventeenth and eighteenth centuries, most commercial activity took place in reciprocal networks of interpersonal trust, where credit was offered on the basis of personal moral reputation.<sup>134</sup> People would trade on credit and meet at regular intervals to compare accounts, cancel mutual debts, and either agree on a new amount of debt or pay the remaining sum with 'ready money' (that is, with lower-denomination coins). As a consequence, the period saw an intense concern for marketing morals, personal trustworthiness and questions concerning the appropriate use of money. The state's increasing efforts to define and authorize precise meanings of money hence coincided with a growing popular awareness of money's inherent ambivalence. As Matthew Rowlinson has argued, the circulating paper bills that implicitly represented only a speculative value founded on calculation of the future—a future which, as we shall see below, had to be conceived of in isochronic and secular terms—were almost always mediated through

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<sup>130</sup> Joanna Innes, *Inferior Politics: Social Problems and Social Policies in Eighteenth-Century Britain* (Oxford: Oxford University Press, 2009).

<sup>131</sup> Malcolm Gaskill, *Crime and Mentalities in Early Modern England*, Cambridge Studies in Early Modern British History (Cambridge: Cambridge University Press, 2000), 123–199.

<sup>132</sup> Deborah Valenze, *The Social Life of Money in the English Past* (Cambridge: Cambridge University Press, 2006), 193, 260.

<sup>133</sup> Gaskill, *Crime and Mentalities in Early Modern England*, 123–199.

<sup>134</sup> See Craig Muldrew, *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England*, *Early Modern History: Society and Culture* (Basingstoke: Palgrave, 1998); Craig Muldrew, "'Hard Food for Midas': Cash and Its Social Value in Early Modern England," *Past & Present*, no. 170 (2001): 78–120.



transactions in ‘local networks of obligation, credit, and mutual identification.’<sup>135</sup> In this ‘grand system of reciprocity’ all personal acts were seen as connected in a providential scheme—including a Great Chain of Being—where reward in one area (‘spiritual’) might play out in another (‘social’ or ‘physical’).<sup>136</sup> Money could take on the ‘good’ or ‘bad’ character of its owner, as well as impart its own moral qualities to whoever handled it.

However, as demographic migration increased and regional markets became more integrated, the trust involved in credit relations increasingly had to be extended beyond face-to-face encounters, leaving many merchants to rely on word of mouth when considering someone’s character and trustworthiness.<sup>137</sup> The fact that one might never meet the person one was dealing with meant that—at least in certain circumstances and social segments—credit to an increasing degree had to be granted independently of personal character and interpersonal trust.<sup>138</sup> The guarantee of authentic value became detached from the morality of specific persons, and came to rest elsewhere. An important basis for trust in the—increasingly widely—circulating currency was the state’s guarantees (and threats).<sup>139</sup> According to Fernand Braudel, the ‘long-drawn-out process’ through which the English state gained control over ‘the financial machinery’ begun in the late seventeenth century was essential to England ‘develop[ing] ... a credit system that worked.’<sup>140</sup> Together with technological innovations that helped towards securing state monopoly on money production, the key breakthrough for the conception of money as an abstract measure of value independent of personal character was, as Geoffrey Ingham has affirmed, the combination of a modern banking system with state power.<sup>141</sup>

A key event in the emergence of this new alliance between administrative (and military) state and commercial market was the establishment of the Bank of England

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<sup>135</sup> Matthew Rowlinson, “‘The Scotch Hate Gold’: British Identity and Paper Money,” in *Nation-States and Money: The Past, Present and Future of National Currencies*, ed. Emily Gilbert and Eric Helleiner, Routledge/RIPE Studies in Global Political Economy 2 (London and New York: Routledge, 1999), 61. Emphasis in original.

<sup>136</sup> Valenze, *The Social Life of Money*.

<sup>137</sup> Muldrew, *The Economy of Obligation*, 1–11.

<sup>138</sup> Rowlinson, “‘The Scotch Hate Gold’: British Identity and Paper Money,” 48–51.

<sup>139</sup> Bruce G. Carruthers, *City of Capital: Politics and Markets in the English Financial Revolution* (Princeton, NJ: Princeton University Press, 1996).

<sup>140</sup> Fernand Braudel, *Civilization and Capitalism, 15th-18th Century: The Wheels of Commerce*, vol. 2, Reprint. (London: Phoenix Press, 1992), 526.

<sup>141</sup> Geoffrey Ingham, “On the Underdevelopment of the ‘Sociology of Money,’” *Acta Sociologica* 41, no. 1 (1998): 3–18; Geoffrey Ingham, *The Nature of Money* (Cambridge: Polity Press, 2004).

in 1694, originally conceived as a means of financing the state's wars.<sup>142</sup> The Bank received its charter under the authority of the Ways and Means Act in May 1694, which immediately bestowed it with peculiar privileges. In return for a loan to the government of £1,200,000 at an 8 per cent return, the Bank received the privilege of incorporation as a joint-stock company, whose stocks the state then sought to persuade the population to purchase. For many speculators, the fact that the Bank's chief asset was an irredeemable loan to the government made this seem a unique business opportunity.<sup>143</sup> Crucially, then, as philosopher Philip Goodchild affirms, it was state guarantees (in the form of potential future taxes, extracted by force if necessary) that enabled the Bank, from its very establishment, to invest more money than it actually had – something which resulted in the formal erasure of all finite limits on the market and hence the creation of 'a form of credit which need never be repaid.'<sup>144</sup> In the words of Braudel, '[t]he long-term debt converted itself almost spontaneously into a perpetual debt... This was the miracle: the state never repaid the loan, but the lender could recover his money whenever he wanted it ... The entire system depended on the 'credit-worthiness' of the state, on public confidence in other words.'<sup>145</sup> During the mid-century, David Hume famously opposed this practice of public credit, arguing that the government could become too indebted to intervene in domestic or international crises.<sup>146</sup> Against Hume's dire views, however, Dutch investor Isaac de Pinto, whose *Essay on Circulation and Credit* was widely read among financial elites in England, argued that the then unique English combination of state power and Bank was in fact beneficial in the long run.

[T]he national debt has enriched the nation, and I prove it thus. On every new loan the government of England mortgages a portion of taxes to pay the interest, and creates a new artificial capital, which did not exist before, which becomes permanent, fixed, and solid; and by means of credit circulates to the advantage of the public, as if it were in effect so much real treasure, that had enriched the kingdom.<sup>147</sup>

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<sup>142</sup> Peter George Muir Dickson, *The Financial Revolution in England: A Study In the Development of Public Credit, 1688-1756* (London et al.: Macmillan, 1967).

<sup>143</sup> J. Keith Horsefield, *British Monetary Experiments, 1650-1710* (London: G. Bell and Sons Ltd., 1960), 244.

<sup>144</sup> Philip Goodchild, *Capitalism and Religion: The Price of Piety* (London and New York: Routledge, 2002), 31.

<sup>145</sup> Braudel, *The Wheels of Commerce*, 2:527.

<sup>146</sup> David Hume, "Of Public Credit," in *Political Discourses* (Edinburgh: R. Fleming, 1752), 123–141.

<sup>147</sup> Isaac de Pinto, *An Essay on Circulation and Credit: In Four Parts; and a Letter On the Jealousy of Commerce*, trans. S. Baggs (London: J. Ridley, 1774), 17.

At stake in the operation of this new credit system was somehow to guarantee that the value of the Bank of England notes—that is, the notes’ promised convertibility to gold on demand—would remain the same independently of changes beyond the control of the persons involved in trade, including long-distance trading relations. As noted above, part of this guarantee rested on the state’s prerogative to raise taxes at will; since convertibility could always be enforced in the future, the promise could be trusted and acted upon in the present. Already in the first decades of their issue, the promises printed on the Bank of England notes gained the necessary trust to function as ‘real money,’ at least among merchant elites.<sup>148</sup> The Bank of England paid for army supplies throughout the country using notes marked with the Bank’s seal, and soon, according to one historian, they were accepted as payment ‘everywhere.’<sup>149</sup> Even though these sealed bills were discontinued in 1716, it demonstrated a general and increasingly popular readiness to accept payment in paper, at least if the notes bore the state-sanctioned seal of the Bank.<sup>150</sup> Keith Horsefield deems Bank of England notes the only candidates for the title of ‘paper money’ in the early part of the eighteenth century, and suggests that by the 1760s the Bank’s notes were generally regarded as ‘proper’ money, long before they were made legal tender in 1833.

However, the state’s guarantee based on future domestic taxation was not enough on its own; it was complemented with a standard of measure beyond the state. At least since the fourteenth century, the English state’s regulatory intervention in trading practices had been closely related to its insistence on an abstract and universal standard of value, whether monometallic or bimetallic.<sup>151</sup> Together with an extension of international commercial networks during what historians have later dubbed the ‘Financial Revolution,’<sup>152</sup> the late seventeenth and eighteenth centuries saw a strong shift towards thus securing value in an abstract standard beyond local communal relationships: bankers developed new forms of promissory notes—bills of exchange—by which debt could be transferred to unknown third parties; large-scale

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<sup>148</sup> Peter Temin and Hans-Joachim Vith, “Private Borrowing During the Financial Revolution: Hoare’s Bank and Its Customers, 1702-24,” *Economic History Review* 61, no. 3 (2008): 541–564.

<sup>149</sup> Sir Albert Feaveryear, *The Pound Sterling: A History of English Money*, 2nd rev. (Oxford: Clarendon Press, 1963), 126. In 1716 the sealed bills were discontinued, and the note circulation consisted entirely of cash notes signed by the Chief Cashier. *Ibid.*, 160.

<sup>150</sup> J. Keith Horsefield, “The Beginning of Paper Money in England,” *The Journal of European Economic History* 6, no. 1 (1977): 117–132.

<sup>151</sup> Samuel Knafo, “The State and the Rise of Speculative Finance in England,” *Economy and Society* 37, no. 2 (2008): 172–192.

<sup>152</sup> Dickson, *The Financial Revolution in England*.

merchants (such as those involved in the South Sea or East India companies) increasingly operated on a national and even international scale, calculating future profits on the assumption that the value of the means of exchange would remain unaltered over time; and, more generally, in the words of one historian, ‘English people came to think of themselves as rate payers and investors, as well as regular spenders ... often measure[ing] their world and even themselves in monetary terms.’<sup>153</sup> As abstract and universal, the standard of value was disembedded from particular places, persons and face-to-face relations. In other words, the selected commodity functioning as standard had to be imagined as existing in an abstract, secular time, separated from changes beyond the control of state and traders.

Even if the standard was imagined as existing beyond the state, it was only actualized via the technological means of money production, and towards the end of the eighteenth century (as we shall see) these increasingly came under state control. The state’s insistence on ‘sound money’ whose value was grounded in a universal standard beyond the state hence went together with an insistence on the state’s prerogative to create such money. Officially sanctioned money was money into which the immutability of the abstract standard of value had been imparted, so to speak, and which was therefore able to move (in the form of minted coins) without undergoing transformation. Put another way, secular time was implied in the mental evacuation of a single commodity from the realm of change to function as a neutral and universal standard, and mediated through various forms of money through the state’s increasingly monopolized technological networks of money production.

In the case of Bank notes, the ‘promise to pay ... the bearer on demand’ was still primarily guaranteed by the state’s prerogative to raise future taxes, and its punitive system. Throughout the eighteenth century, Bank of England notes (see figure 3.3) were easy to forge, and the general willingness (among those who could afford to use them) to accept them as payment was no doubt partly due to the fact that the state put paper money almost on a par with gold coins when it measured out punishment for counterfeit – a crime considered an act of treason at the time. Already in 1697, only three years after the Bank’s establishment, capital punishment was introduced for the

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<sup>153</sup> Valenze, *The Social Life of Money*, 13.

forgery of Bank of England's printed notes, and in 1729 this was extended to the forgery of private bank notes.<sup>154</sup>



**Figure 3.3 – Bank of England £5 note, 1796**

In the case of coins, however, the seventeenth and eighteenth centuries saw an intense pursuit of technological mediation of a stable value. Counterfeit and alternative currencies were among the most important monetary challenges for the seventeenth- and eighteenth-century state, and legal prohibition alone failed to affect their *de facto* circulation. The practice of clipping and counterfeiting coins remained widespread, and made the wealthy hoard their coins. The resultant shortage caused both more counterfeiting and a ubiquitous use of informal credit relations in everyday transactions.<sup>155</sup> Throughout the seventeenth and eighteenth centuries small-denomination coins had largely functioned as a balancing item when short-term credit accounts were settled. In the late eighteenth century, the shortage of coin generated a pressing demand for alternatives, particularly in urban centres where poor wage earners lacked that history of personal reliability so basic to local credit economies.<sup>156</sup> In response to this, many industrialists issued their own copper trade tokens for daily and weekly payment of wages in low-denomination coins to the literally penny-less poor. Thus, 'private' copper tokens entered into local and sometimes even regional

<sup>154</sup> Carl Wennerlind, "The Death Penalty as Monetary Policy: The Practice and Punishment of Monetary Crime, 1690-1830," *History of Political Economy* 36, no. 1 (2004): 131–161.

<sup>155</sup> Feaveryear notes other reasons including population growth, the laws against export of coin and precious metals, and minting charges – which created a gap between the value of circulating money and the value of the standard weight of metal. Feaveryear, *The Pound Sterling*, 1–6. The lack of official money spurred a widespread use of paper credit and barter in the English colonies. William T. Baxter, "Observations on Money, Barter and Bookkeeping," *Accounting Historians Journal* 31, no. 1 (2004): 129–39.

<sup>156</sup> Peter Mathias, "Official and Unofficial Money in the Eighteenth Century: The Evolving Uses of Currency," *British Numismatic Journal* 74 (2004): 68–83.

circulation, which also was the industrialists' intent. Indeed, regional and local trade tokens of this sort continued to circulate even into the early nineteenth century.<sup>157</sup>

Deficiencies in minting technology left this problem unresolved for centuries – coins made with hammer and anvil could easily be 'modified' by any local smith.<sup>158</sup> Until the end of the eighteenth century, the only way the state could attempt to maintain (or indeed regain) its control of the circulating money had been through recoinage. The official recoinage of copper in 1797 (and those that were to follow in subsequent years), for instance, could hence be seen as the result of a 'conscious policy to drive counterfeit and token copper out of circulation,'<sup>159</sup> thereby reinforcing the authority of the state. In 1798 Parliament set down a Privy Council committee that would inquire into the situation of money scarcity, and it was a member of this committee, the Earl of Liverpool, who suggested that gold should be the sole standard coin in the entire realm, and in 1816, when the Earl's son was prime minister, his outline of such a system was acted upon.<sup>160</sup> Coins of silver were now made into token coins; nominal representations of a certain value measured in gold.<sup>161</sup> Crucially, the new standard could be mediated by newly developed technologies. Matthew Boulton's innovative steam presses in Birmingham made possible the stamping of uniform coins that with their smooth edges and regular size were almost impossible to counterfeit. The machine could even be 'tailored' for the Royal Mint, and the details of its manufacture kept from the public.<sup>162</sup> Metallic money based on a single universal standard was becoming the prerogative of the state.

Thus, the eighteenth-century state began the process of establishing an abstract and universal standard of value, backed by its punitive system, and existing in a secular time independent of motion. It increasingly monopolized the technological means necessary for producing 'authentic' money, and policed this authenticity whenever it was challenged by counterfeit or local pragmatic alternatives. The commodity of gold

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<sup>157</sup> Peter Mathias, *The Transformation of England: Essays in the Economic and Social History of England in the Eighteenth Century* (London: Methuen, 1979), 190–208.

<sup>158</sup> For a description of the coining process, see Henry T.F. Rhodes, *The Craft of Forgery* (London: J. Murray, 1934).

<sup>159</sup> Mathias, "Official and Unofficial Money," 82.

<sup>160</sup> Charles Jenkinson Liverpool, *A Treatise on the Coins of the Realm; in a Letter to the King* (Oxford: Oxford University Press, 1805).

<sup>161</sup> Rowlinson, "'The Scotch Hate Gold': British Identity and Paper Money," 55.

<sup>162</sup> Boulton's machines are still in use today, albeit driven by electricity instead of steam. See Ted Wilson, *Battles for the Standard: Bimetallism and the Spread of the Gold Standard in the Nineteenth Century*, ed. Derek H. Aldcroft, *Modern Economic and Social History* (Aldershot: Ashgate, 2000), 121.

could be mentally abstracted from the realm of flux, and its characteristics be ‘incarnated’ in the inimitable coins coming out of Boulton’s presses. The ‘standard’ commodity, state-sanctioned money, was increasingly invested with the dual properties of immutability and mobility, undergoing no change as it moved through a time independent of motion.<sup>163</sup> As will be examined in chapter 6, this process was only extended to paper money during the Victorian period. During the restriction period between 1797 and 1821 that the ultimate status of Bank notes became the topic of widespread discussion, and in 1855 the Bank acquired the technological means necessary to successfully produce inimitable paper notes: the immutable gold standard came to be embodied in humble pieces of paper whose authenticity and value was guaranteed not only by the state’s punitive power, but now also by its technological superiority.

## CONCLUSION

The first part of this chapter provided a more rigorous and precise definition of the concept of secular time than is found in recent scholarship on secularity and modern temporality. Drawing on scholastic definitions, secular time can be defined as abstract, isochronic (homogenous) and independent of motion, representable as a uniform and infinitely subdivisible continuum. We have seen how the scholastics defined this concept in order to enable the (potential) flight of immutable mobiles, angelic messengers, neither worldly nor eternal. The second part of the chapter traced how this peculiar and far from ‘ordinary’ time conception was embedded in specific practices and technologies in the three or four centuries leading up to the Victorian period: the emergence of a civic time independent of specific interests within the urban collective; the time on which regular periodical publication was premised, and which was embodied in newspaper pages whose form remained the same independently of their content; and the isochronic time underpinning state-sanctioned credit practices, and an implicit universal standard of value whose immutability increasingly came to be embodied in technologically inimitable money forms (coins). Crucially, then, secular time was not merely a matter of philosophical speculation, but one of embodied practices and of material and technological mediation. While not

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<sup>163</sup> As Latour has argued, money should hence be approached as an *immutable mobile*. Bruno Latour, “Drawing Things Together,” in *Representation in Scientific Practice*, ed. Steve Woolgar and Michael Lynch (Cambridge, MA: The MIT Press, 1990), 19–68.

articulated explicitly, the concept was nevertheless invested and embedded in practices and networks emerging within—as Taylor describes it—a broader multiplex of practices and tacit understandings often referred to as the *ancien regime*. Secularization—that is, the active investment of secular time on the level of the social imaginary—was hence emerging in local ‘pockets’ during the sixteenth, seventeenth and eighteenth centuries. During the early nineteenth century, these networks continued to expand and gain prominence – indeed, as we shall see, the investment of secular time became ever more deliberate.

The next part of this thesis builds on the above examples, examining the temporal dimension of three Victorian social imaginaries, and the technological networks through which they were performed. In chapter 4, we will see how railway passengers were treated as immutable objects whose predicted arrival at their destination could be calculated accurately according to timetables embodying an isochronic time independent of the passengers’ flight. In chapter 5, we will see how ‘news’ was eventually evacuated from unpredictable weather conditions, translated into electrical currents, and made to appear as synchronous events on neutral newspaper pages. Finally, in chapter 6, we will see how technological networks centred on the Bank of England allowed the abstract immutability of the gold standard to be translated into paper notes.

But, as we will also see, this is not the whole story. All three social imaginaries also embedded another conception of time, namely a historical time, cutting through secular time at every point. Railways, newspapers, and Bank of England notes all epitomized, as well as *materialized*, quite literally, a distinct and qualitative difference between past, present, and future. In other words, while performing a secular time independent of qualities, all three also embodied *in themselves* the distinct quality of the present historical moment. In this sense, all three social imaginaries insisted on both secular regularity *and* historical rupture; secular calculus *and* historical unpredictability; secular immutability *and* historical change. In brief, the temporal structure of Victorian modernity was far from ‘purely secular.’



## PART 2

## 4. RAILWAY TIMES

### Travellers, tracks, and timetables

Railways rarely, if at all, feature in accounts of secularization. For the present purposes however, the Victorian railway network constitutes a more than appropriate case study of the process. Following Taylor, what is at stake is no longer the abundance of articulated views of outspoken proponents of religion or secularism, nor the generically ‘religious’ (or not) nature of dominant discourses. Instead, we direct attention to processes of active investment of secular time in technological networks and widespread collective practices. In this respect, the Victorian railways are an excellent place to begin the second part of this inquiry into the (reposed) question of secularization in nineteenth-century England.

First, the Victorian railway network was a technological assemblage with which the entire population soon became familiar through regular use, principally as passengers. Already by the mid-1830s it was taken for granted that each new railway opened would generate at least twice as many travellers as before on the same (coach) route, and that all strata of the population might be found among them.<sup>1</sup> Indeed, an important element in the popularity of the railways was their apparent ‘levelling’ effect; anyone—at least in theory—could travel by train. The royal family used the railways regularly. The Queen’s first journey was from Windsor to London in 1842—an event that, according to one historian, opened a ‘new chapter in the history of the British monarchy’<sup>2</sup>—and she continued using trains as a means of travel, in particular when visiting her holiday home at Balmoral.<sup>3</sup> Following Gladstone’s *Railway Regulation Act* in 1844, even the relatively poor could travel ‘at moderate Fares, and in Carriages in which they may be protected from the Weather,’ for no more than ‘One Penny for each Mile travelled.’<sup>4</sup> The railway companies were now obliged (albeit generally against their expressed preference) to provide so-called

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<sup>1</sup> Philip S. Bagwell, *The Transport Revolution, 1770-1985* (London: Routledge, 1988), 95.

<sup>2</sup> Jack Simmons and Gordon Biddle, eds., *The Oxford Companion to British Railway History from 1603 to the 1990s* (Oxford: Oxford University Press, 1997), 427.

<sup>3</sup> Christian Wolmar, *Fire and Steam: A New History of the Railways in Britain* (London: Atlantic Books, 2007), 81–2.

<sup>4</sup> *An Act to Attach Certain Conditions to the Construction of Future Railways, 7 & 8 Vict., Cap. LXXXV* (London: Eyre & Spottiswoode, 1845).

‘Parliamentary Trains’ which were to include a Third Class for the ‘lower orders’ on at least one day of the week. In fact, by 1860 most travellers were from this Third Class.<sup>5</sup> This inclusiveness proved profitable. The Midland Railway deliberately fostered third-class travel, even upholstering the seats in the respective carriages, and many other companies followed the example – no doubt because of the financial benefits of increased passenger numbers. Several railways likewise reduced the fares for children under certain ages, and distinguished between more and less comfortable accommodation.

#### **Figure 4.1 – Commuting workers in Liverpool, 1884**

Trains were used both for commuting to work and for leisurely activities. The growing network of branch lines made it possible for workers to live further away from their work place, providing the means to commute. After having opened the underground railway between Paddington and Farringdon, the Metropolitan Railway started running so-called ‘workmen’s trains’ in the mornings, with fares affordable to workers (see figure 4.1).<sup>6</sup> The Great Eastern Railway saw the commercial potential in thus catering to the lower classes, and advertised itself as the ‘the poor man’s line,’ bringing workers from suburbs to city on a daily basis. The early 1840s also saw the establishment of travel agencies such as the Thomas Cook & Son, originally trying to make ‘the newly-developed powers of railways and locomotion ... subservient to the

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<sup>5</sup> David Henshaw, *The Great Railway Conspiracy: The Fall and Rise of Britain’s Railways Since the 1950s* (Buttersett: Leading Edge Press and Publishing, 1991), 18.

<sup>6</sup> Wolmar, *Fire and Steam*, 133.

promotion of temperance.<sup>7</sup> Trains chartered for the occasion—some of them carrying more than 2,000 passengers—would take middle-class urban dwellers on excursions to historic sites or day trips to seaside resorts. The relatively cheap excursion tickets allowed everyone but the poorest or the most remote to travel and develop leisure habits (see figure 4.2). The Great Exhibition of 1851 constituted something of a breakthrough in this respect, bringing the provincial population into the metropolis for their pleasure. It is estimated that more than five million people travelled to the exhibition by railway, which was close to a third of the population in England and Wales at the time.<sup>8</sup> In 1854 alone, over 90 million railway journeys were made.<sup>9</sup>



**Figure 4.2 – ‘Waiting for the excursion train,’ *Illustrated London News*, 1880**

Obviously, apart from those who refused to join excursion trips on the Sabbath (but who gladly travelled on the other six days of the week), Victorians used the railway system regardless of their professed religious belief or lack of such. Nonetheless, in Taylor’s terms, its associated social imaginary was indeed secular, in the specific sense that secular time was actively invested in and materially mediated through its technological performance. The process of secularization—on this particular level—was hence closely related to the expansion and national integration of the Victorian railway network. The network at once helped underpin and was premised upon a conception of secular time, and the participants in its associated practices— whatever

<sup>7</sup> Quoted in Arthur Jordan and Elizabeth Jordan, *Away for the Day: The Railway Excursion in Britain, 1830 to the Present Day* (Kettering: Silver Link Publishing, 1991), 13.

<sup>8</sup> Bagwell, *The Transport Revolution*, 116; Wolmar, *Fire and Steam*, 112.

<sup>9</sup> Wolmar, *Fire and Steam*, 113.

might be their convictions regarding ‘religious’ issues—implicitly shared this conception – indeed, they came to take it for granted.

Another reason why the Victorian railways’ are a suitable case study of secularization is precisely their association with changing time conceptions. Indeed, as noted in chapter 3, several scholars concerned with the issue of modernity and time have commented on the importance of the Victorian railway network, arguing, among other things, that it instituted or at least helped advance an ‘annihilation of space and time;’<sup>10</sup> that it helped create an integrated national space through drawing far places near and making distant times present; and that it constituted new phenomenological experiences of time’s passage, its speed and imposition of straight lines reducing landscapes to fleeting panoramas.<sup>11</sup> This was precisely the impression of the Victorians as well. In 1830, secretary and treasurer to the Liverpool and Manchester Railway, Henry Booth, publishing the written history of that very railway several months before it officially opened, stated: ‘perhaps the most striking result produced by the completion of this Railway, is the sudden and marvellous change which has been effected in our ideas of time and space.’<sup>12</sup> As for the moment, Booth admitted, this pertained only to the Liverpool-Manchester line, but he maintained that the new experience of time would soon come to ‘pervade society at large.’ Later historians have tended to agree, casting railway time as a modern, all-encompassing frame imposed on local or ‘natural’ times, and/or as a catalyst of peculiar modern experiences of ‘subjective’ time conceived as reactions spurred by modernity’s monolithic ‘objective’ temporality (an unhelpful distinction to which we shall return in the concluding chapter).<sup>13</sup>

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<sup>10</sup> The term itself stems from the early nineteenth century, but has been taken up by twentieth-century historians. See Michael Freeman, *Railways and the Victorian Imagination* (London: Yale University Press, 1999), 21, 247 n75.

<sup>11</sup> These dynamics have been critically explored in Di Drummond, “Railway Space(s) and the Creation of New Forms of Nationhood in Britain 1830-1900,” in *Victorian Spaces*, 8, Leeds Centre Working Papers in Victorian Studies (Leeds Centre for Victorian Studies, 2006). Many accounts, historical or sociological, tend to overlay both the impact of the railway in a ‘major shift’ in time conception during the nineteenth century, and the extent and suddenness this shift. For a critical analysis, see Jon May and Nigel Thrift, “Introduction,” in *TimeSpace: Geographies of Temporality*, ed. Jon May and Nigel Thrift, Critical Geographies 13 (London: Routledge, 2001), 1–46.

<sup>12</sup> Henry Booth, *An Account of the Liverpool and Manchester Railway, Comprising a History of the Parliamentary Proceedings, Preparatory to the Passing of the Act, a Description of the Railway, in an Excursion from Liverpool to Manchester, and a Popular Illustration of the Mechanical Principles Applicable to Railways*. (Liverpool: Wales and Banes, 1830), 89–90.

<sup>13</sup> See for instance Nicholas Daly, *Literature, Technology, and Modernity, 1860-2000* (Cambridge et al.: Cambridge University Press, 2004).

As we have seen, secular time was already implicit in the establishment of local civic times in the seventeenth and eighteenth centuries. Nonetheless, the self-conscious organization of homogenous ‘clock-time’ as a uniform dimension of *national* life, thus establishing English society as a precisely synchronized whole, was a Victorian accomplishment. While the proposal to synchronize all clocks according to a universal standard was originally made in relation to astronomical observations, nautical navigation and postal distribution, railways became a crucial technology in the process of distributing uniform time throughout the national territory.<sup>14</sup> In 1884, *The Times* commented that ‘[f]ifty years ago ... it was the custom of each town to keep its public clocks regulated in accordance with its own local time; and it was only the development of the railway system which brought about the abandonment of the practice.’<sup>15</sup> ‘Railways have made the uniformity of time within narrow belts of longitude a necessity,’ declared Scottish geographer Hugh Robert Mill in 1892, ‘and so largely does the railway effect modern civilized life that railway time soon comes to regulate all affairs.’<sup>16</sup>

However, while the railway network indeed embedded secular time—for example, as we shall see, in the way timetables embodied the assumption of an abstract grid in which the temporal location of every station on every route could be accurately marked—its temporal dimension was by no means purely secular. For one thing, the experience of time during train travel is much more complex than allowed for by the all-too-common narrative of time ‘compression’ or ‘acceleration,’ as recent ethnographic studies also affirm.<sup>17</sup> More crucially, however, the railway network itself appeared as a manifestation of a specific present *historical* quality – the material embodiment of the ‘Age of Railways.’ In its very material expansion, then, the network itself—precisely as it was conceived as a totalized and synchronized whole—came to constitute a qualitative break away from the ‘old’ world; a transition into an

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<sup>14</sup> See for instance Derek Howse, *Greenwich Time and the Longitude* (London: Philip Wilson Publishers Ltd, 1997), 91–2; Ian P. Lyman, *Railway Clocks* (Ashbourne: Mayfield Books, 2004), 21–44. This does not imply any kind of technological determinism, as Ian R. Bartky’s work on the American context demonstrates. See Ian R. Bartky, “The Adoption of Standard Time,” *Technology and Culture* 30, no. 1 (1989): 25–56; Ian R. Bartky, *One Time Fits All: The Campaigns for Global Uniformity* (Stanford University Press, 2007).

<sup>15</sup> Anon., “Editorial,” *The Times*, no. 31254 (October 2, 1884): 9.

<sup>16</sup> Hugh Robert Mill, “Time Standards of Europe,” *Nature* 46, no. 1182 (1892): 174–6.

<sup>17</sup> Juliet Jain and Glenn Lyons, “The Gift of Travel Time,” *Journal of Transport Geography* 16, no. 2 (2008): 81–89; John Urry and Laura Watts, “Moving Methods, Travelling Times,” *Environment and Planning D: Society and Space* 26, no. 5 (2008): 860–874; John Urry, “Travelling Times,” *European Journal of Communication* 21, no. 3 (2006): 357–372; Laura Watts, “The Art and Craft of Train Travel,” *Social & Cultural Geography* 9, no. 6 (2008): 711–726; Gayle Letherby and Gillian Reynolds, *Train Tracks: Work, Play, and Politics on the Railway* (Oxford and New York: Berg, 2005).

essentially different ‘age.’ This temporal double-ness spurred several paradoxes: the very design and maintenance of the secular accuracy embodied in the network—which allowed its national integration as a single entity—at once enabled and entailed battling against a historical time manifest in the network’s own development as well as its gradual deterioration and potentially devastating fragility.

### THE RAILWAY NETWORK

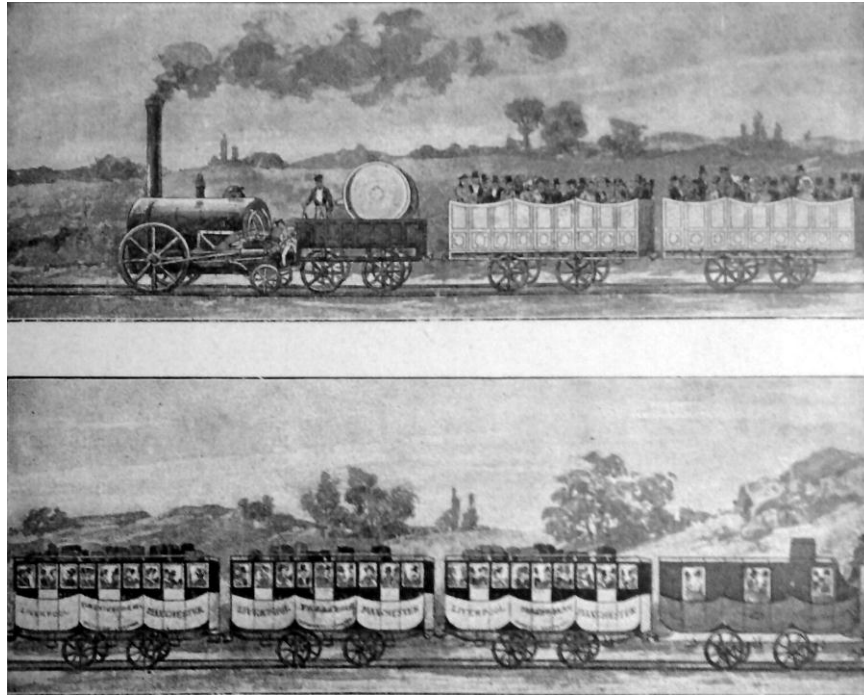
In terms of its material extension, the beginnings of the national railway network were humble: the earliest public railways connected only two or possibly three towns. The most common marker of the introduction of a properly ‘modern’ and public railway of this sort is the Manchester and Liverpool line,<sup>18</sup> which opened in 1830, after the Parliamentary Act to authorize it had been stalled by local canal companies for two years.<sup>19</sup> Crucially, for the first time, the traction was entirely mechanical, and steam locomotives provided the exclusive means of traction (see figure 4.3). George Stephenson’s ‘Rocket’ had won the preceding Rainhill Trials, demonstrating a speed of 29 mph, as well as the required ability to pull a load at least three times its own weight. Such impressive feats, together with the new railway tracks made from wrought rather than cast iron, secured the regularity and reliability needed to boost the confidence of potential investors. Though initially intended for transport of goods, the railway carried 460,000 passengers in its first year alone – four times the number of people making the same journey by stagecoach the year before. Indeed, at the introduction of the line, the stagecoaches between the two cities ceased to run with immediate effect.<sup>20</sup>

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<sup>18</sup> For a railway to be defined as ‘modern’ requires a combination of ‘specialized track, mechanical traction, facilities for public traffic, and provision for passengers. Some name the Stockton and Darlington line (1825) the first modern British railway. Its traction was only partly mechanical, however; horses were still being used. See e.g. T.R. Gourvish, *Railways and the British Economy, 1830-1914*, Studies in Economic and Social History (Basingstoke: MacMillan, 1986), 9. See discussion of this definition of a ‘modern’ railway in Michael Robbins, *The Railway Age* (London: Routledge & Kegan Paul, 1962), 1–9. For an account of the use of railways as a means of transport before the 1830s, see C.F. Dendy Marshall, *A History of British Railways Down to the Year 1830*, vol. 2nd (London: Oxford University Press, 1971).

<sup>19</sup> Wolmar, *Fire and Steam*, 24–30; Robert Carlson, *The Liverpool and Manchester Railway Project 1821-1831* (Newton Abbott: David & Charles, 1969). See also Henry Booth’s own description of the process in Booth, *An Account of the Liverpool and Manchester Railway*.

<sup>20</sup> Robert Routledge, *Discoveries and Inventions of the Nineteenth Century*, 14th ed. (London: George Routledge and Sons, Limited, 1905), 102–3.



**Figure 4.3 – The first passenger railway between Manchester and Liverpool**

After this, national integration was a rapid process. Between 1825 and 1835 Parliament passed no less than fifty-four acts authorizing the construction of railways similar to the Manchester and Liverpool line. The first real growth spurt came in the early 1840s.<sup>21</sup> By this time, most of the major arteries of the network were already in place, such as the London-Birmingham line (1838), which connected to the Liverpool-Manchester line by the Grand Junction line (1837), and to Sheffield, Leeds and Newcastle by other lines; the London-Bristol line (1841); and the London-Southampton (1838-40) and London-Brighton (1841) lines that connected the capital with the southern ports.<sup>22</sup> The network was continuously extended, and reached a preliminary peak in the infamous ‘railway mania’ in the mid- and late 1840s.<sup>23</sup> By the end of 1844, a total of 2,235 miles of railway were in operation in Britain, three quarters of which had been built after 1839.<sup>24</sup> In the year 1845 alone a total mileage of 2,896 was sanctioned, with an authorized capital of £59.5 million. The year after, the numbers were 4,540 miles and £132.5 million, sanctioned through more than two

<sup>21</sup> See e.g. Henry Parris, *Government and the Railways in Nineteenth-Century Britain*, Studies in Political History (London: Routledge & Kegan Paul, 1965), 28–102.

<sup>22</sup> Ian N. Gregory and Jordi Marti Henneberg, “The Railways, Urbanization, and Local Demography in England and Wales, 1825-1911,” *Social Science History* 34, no. 2 (June 1, 2010): 199–228.

<sup>23</sup> Henry Grote Lewin, *The Railway Mania and Its Aftermath, 1845-1852*, Rev. ed. (London: David & Charles; Newton Abbot, 1968), 1.

<sup>24</sup> Bagwell, *The Transport Revolution*, 80–1.



hundred individual acts.<sup>25</sup> Still, while many new lines were authorized (despite the bad financial climate), almost two-thirds of the mileage authorized between 1844 and 1847 was never built,<sup>26</sup> and hundreds of proposed schemes did not even get a first reading.<sup>27</sup> By the end of the mania in 1852, the total route mileage was approximately 7,500 miles.<sup>28</sup>

These numbers do not necessarily suggest that the railways simply revolutionized how transport was conducted, or that their integrating effect was immediate. The early railways were relatively short and held primarily regional or local significance. Since many of them were only used for carrying coal, they had no need for high speeds – on many lines horses remained the primary source of traction power. In this respect, most railways built before 1850 were treated as additions to the existing canal networks, where most transport of goods took place.<sup>29</sup> Furthermore, the pre-1850 railway network was not yet as integrated as had been the coach network it was abruptly replacing. Indeed, because the changeover was so swift, most rural areas ended up having *less* regular contact with urban centres than before. ‘It is even possible,’ argues Andrew Charlesworth, ‘that the village world of the 1840s and 1850s had a more restricted horizon than had the village in 1830.’<sup>30</sup>

Nevertheless, by 1842 most of Britain’s major industrial centres were connected directly or indirectly to London,<sup>31</sup> already then giving the country ‘the semblance of a national railway system.’<sup>32</sup> By the mid-1850s half of the population lived in parishes boasting at least one station,<sup>33</sup> and from then on until the mid-1870s, innumerable small branch lines were opened. Apart from another ‘mania’ in the 1860s, the latter half of the century generally saw railway companies focusing on connecting small

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<sup>25</sup> Ibid., 82.

<sup>26</sup> Simmons and Biddle, *The Oxford Companion to British Railway History from 1603 to the 1990s*, 311.

<sup>27</sup> Bagwell, *The Transport Revolution*, 82.

<sup>28</sup> The figures of mileage often vary between sources. Sometimes new schemes incorporated schemes that had been approved at an earlier point, and the relation between the two is seldom made clear. Wolmar estimates a total route mileage of 9,500 as early as in 1847, but this is probably an unintended exaggeration. Wolmar, *Fire and Steam*, 88. For comparison, Lewin estimates that between 1845 and 1852 approximately 5,000 miles were authorized and opened in addition to the already existing 2,325 miles. Lewin, *The Railway Mania and Its Aftermath, 1845-1852*, 473.

<sup>29</sup> Indeed, most new tracks were put down alongside existing canals. David Turnock, *Railways in the British Isles: Landscape, Land Use and Society* (London: Adam & Charles Black, 1982), 14–19.

<sup>30</sup> Andrew Charlesworth, *Social Protest in a Rural Society: The Spatial Diffusion of the Captain Swing Disturbances of 1830-1831*, Historical Geography Research Series 1 (Norwich: Geo Books, 1979), 46.

<sup>31</sup> Gregory and Henneberg, “The Railways, Urbanization, and Local Demography in England and Wales, 1825-1911,” 201–2.

<sup>32</sup> Freeman, *Railways and the Victorian Imagination*, 1.

<sup>33</sup> Gregory and Henneberg, “The Railways, Urbanization, and Local Demography in England and Wales, 1825-1911,” 211.

urban centres and towns to the existing main arteries of their own network. Already by this time, then, the network was extensive enough (together with its distribution of daily newspapers) to restore the contact it had temporarily disrupted between rural and urban areas. Indeed, the 1860s and 70s saw the emergence of completely new ‘railway towns,’ such as Crewe and Swindon, as well as the decline of established urban centres such as Exeter and Norwich: the latter for various reasons deciding not to be connected to a main line, the former vying to get that much-desired railway station that could ‘put their town on the map.’ Rural villages that lay close to a main line were more likely to be connected and hence get a station of their own – which in most cases could lead to substantial population growth. From the 1870s, the number of stations opened grew about 10 per cent every decade.<sup>34</sup> This was also a result of the new demand for leisurely railway excursions and seaside trips; a railway connection could boost the life of a seaside town to an extraordinary degree. When the railway eventually reached Bournemouth in 1870, its population grew from 5,896 to 16,859 in the following decade, before reaching 78,674 in 1911.<sup>35</sup> Openings of branch lines were celebrated on a grand scale by the affected towns and villages, the station constituting a new gateway to the world and its goods for a whole generation.<sup>36</sup> For an older generation who remembered the ‘old’ map, however, it could be a sobering sight. ‘Much as we love them,’ wrote Thomas Carlyle in his essay *Hudson’s Statue* published in 1850, ‘an unexpected and indeed most disastrous result [of the railways is how they] shift ... all the Towns of Britain into new places.’<sup>37</sup> By the mid-1870s, railway companies ran out of territory for which to compete and instead began competing for passengers, offering relative comfort and (primarily) higher speeds. In less than half a century, the railway network had changed the topographical face of the nation.

## MAKING PROGRESS

For contemporaries, the Victorian railway marked a qualitative shift between the past and the present; indeed, it seemed to usher in an entirely new age. In this sense, it was a technology of historical time, embodying a qualitative transition from past to present, and into an unprecedented future. At the opening of the nineteenth century,

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<sup>34</sup> Ibid.

<sup>35</sup> Bagwell, *The Transport Revolution*, 116.

<sup>36</sup> Wolmar, *Fire and Steam*, 125.

<sup>37</sup> Thomas Carlyle, “No. VII Hudson’s Statue,” in *Latter-Day Pamphlets* (London: Phillips, Sampson, and Company, 1850), 320–1.

public railways had been non-existent; by its end Britain was the home of an extensive network of railway tracks and companies offering services to all classes. Its construction had been beneficial not only to travellers, however, but indeed to the prosperity and progress of the entire nation, and in a variety of ways.<sup>38</sup> Cheapening delivery costs, in addition to creating demand for tracks, buildings, and locomotives, the railway network had contributed directly to the prosperous coal-, steel-, iron-, and brick-making industries.<sup>39</sup> Its construction and demand for maintenance had generated new working classes as well as specialized professions: navigators (or ‘navvies’), contractors, consulting engineers (such as the famous Robert Stephenson and Isambard Kingdom Brunel), civil engineers, surveyors, solicitors, and many more.<sup>40</sup> Large railway companies had pioneered new modes of corporate management in contrast to the more common family firm or partnership structure, further stimulating changes in law and governance.<sup>41</sup> Its impact was by no means limited to Britain; from the 1860s, in particular during the westward expansion in America, railways across the world had been built ‘to a large extent with British capital, British materials, and often by British contractors.’<sup>42</sup> Furthermore, the railway network had facilitated the distribution of London daily newspapers (as well as the penny post from the 1840s), hence contributing (as we will see in chapter 5) to the integration of a national public sphere. Finally, it had provided investment opportunities independently of the metropolis.<sup>43</sup> When shares for the Manchester & Liverpool Railway were issued in 1825, for instance, local citizens took up nearly half of these.<sup>44</sup> This became common practice after 1826, when local banks could be established on the joint-stock principle: local and regional railways were financed by local and regional industrialists, who paid the initial bills with local and regional bank notes (whose

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<sup>38</sup> Economic historians generally agree that the railways represented a series of innovations that together made a—perhaps the most—substantial socioeconomic impact on Britain in the period. See Gourvish, *Railways and the British Economy, 1830-1914*, 33–40; Gary Hawke and Jim Higgins, “Britain,” in *Railways and the Economic Development of Western Europe, 1830-1914*, ed. Patrick O’Brien, St Antony’s/Macmillan Series 12 (London and Basingstoke: Macmillan Press Ltd, 1983), 170–202; John R. Kellett, *Railways and Victorian Cities*, Studies in Social History (London: Routledge & Kegan Paul, 1979); G.R. Hawke, *Railways and Economic Growth in England and Wales 1840-1870* (London: Clarendon Press, 1970).

<sup>39</sup> Bagwell, *The Transport Revolution*, 103–8.

<sup>40</sup> Gourvish, *Railways and the British Economy*, 22.

<sup>41</sup> *Ibid.*, 10.

<sup>42</sup> E.J. Hobsbawm, *Industry and Empire: An Economic History of Britain Since 1750* (London: Weidenfeld and Nicholson, 1968), 93.

<sup>43</sup> While provincial stock exchanges had existed for decades at this time, the substantial investment in regional railway projects led to many new establishments outside of London. Only with the arrival of the telegraph, there was a gradual shift to London becoming the central source of marketing and supply of railway capital. Hawke, *Railways and Economic Growth in England and Wales 1840-1870*, 390.

<sup>44</sup> Bagwell, *The Transport Revolution*, 84.

significance will be discussed in chapter 6).<sup>45</sup> In 1906, then Legal Assistant Under-Secretary in the Home Office, Sir H.H. Cunynghame, looked approvingly back at the preceding century, stating that while future ages might well come to ‘despise’ the poetry, literature, philosophy, and music of his age, ‘they [would] only be able to look back with admiration on the band of scientific thinkers who in the eighteenth and nineteenth centuries ... gave to mankind the steam-engine, the telegraph, [and the] railways.’<sup>46</sup> Indeed, as one railway historian at the turn of the century put it: ‘[t]he great of the past had to be satisfied with the lurch and bolt of the camel... and one feels that, taking everything into consideration, it is better to be alive now!’<sup>47</sup> The railways had, so to speak, made everything new.

Already from their early beginnings, contemporaries recognized the railways’ potential to become a catalyst for civilizational change. Before the opening of the Liverpool and Manchester line in 1830, the company’s secretary Henry Booth was characteristically categorical:

Notions which we have received from our ancestors, and verified by our own experience, are overthrown in a day, and a new standard erected, by which to form our ideas for the future. Speed – despatch – distance – are still relative terms, but their meaning has been totally changed within a few months: what was quick is now slow; what was distant is now near.<sup>48</sup>

This sentiment remained strong throughout the century. ‘Let us clearly understand our position,’ wrote the *Westminster Review* in 1845:

[w]e have arrived at a new epoch in the history of the world. A new element of civilization has been developed. As was the invention of letters, as was the printing-press, so is the railway in the affairs of mankind. It is a revolution among nations. A moral revolution as affecting the diffusion of knowledge, the perpetuation of peace, the extension of commerce; *and a revolution in all the relations of property.*<sup>49</sup>

In 1865, American civil engineer John B. Jervis quoted the above passage, stating that

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<sup>45</sup> This is part of the reason why new railways—and local branches shooting off these—were constructed in a more or less haphazard way throughout the country, and especially in the north. However, this does not necessarily imply that the construction was generally ‘irrational,’ since this would entail anachronistically comparing the period with its future rather than its past. See Turnock, *Railways in the British Isles*.

<sup>46</sup> H.H. Cunynghame, *Time and Clocks: A Description of Ancient and Modern Methods of Measuring Time* (London: Archibald Constable & Co. Ltd., 1906), 2.

<sup>47</sup> John Pendleton, *Our Railways: Their Origin, Development, Incident and Romance*, vol. 2 (London; Paris; Melbourne: Cassell & Company, Limited, 1896), 520.

<sup>48</sup> Booth, *An Account of the Liverpool and Manchester Railway*, 89–90.

<sup>49</sup> George Henry Lewis, “ART. VII.1. The Liabilities Incurred by the Projectors, Managers, and Shareholders of Railway and Other Joint-Stock Companies,” *The Westminster Review* 44, no. 2 (1845): 506. Emphasis in original.

[t]his view, presented in 1845, has lost none of its force by subsequent experience. No reflecting mind, intelligent enough to contrast the world before and since the introduction of railways can fail to see the force of the language held by the “Review“ ... Compared with the previous history of works and improvements in the means to facilitate the commercial, political and social intercourse of mankind, the railway truly marks an “epoch.”<sup>50</sup>

Crucially, the railway was itself the material embodiment of the epochal change. With the railways, stated Booth, ‘[t]he world has received a new impulse.’<sup>51</sup>

[T]he genius of the age, like a mighty river of the new world, flows onward, full, rapid, and irresistible. The spirit of the times must needs manifest itself in the progress of events, and the movement is too impetuous to be stayed, were it wise to attempt it. Like the “Rocket” of fire and steam, or its prototype of war and desolation – whether the harbinger of peace and the arts, or the Engine of hostile attack and devastation – though it be a futile attempt to oppose so mighty an impulse, it may not be unworthy our ambition, to guide its progress and direct its course.<sup>52</sup>

Booth compared history to a rushing river, one whose movement was unpredictable and essentially impossible, even dangerous, to (attempt to) control. The comparison with Stephenson’s locomotive was neither coincidental nor insignificant; like a train, history itself was progressing forward along a single line, and nothing could get in its way. The immaterial ‘spirit of the times [was] manifest’ in the materiality of the railway network. In this way, the Victorian railway network embodied *historical* time, physically manifesting a qualitative distinction between its own past and present. Anglican minister and pioneer of public school pedagogy, Thomas Arnold, was expressing more than his own private sentiment when he stated that the advent of the railway signalled how ‘feudality [was] gone forever.’ The old world was irretrievably gone, and a new age was being ushered in.<sup>53</sup> The railway *was* the transition to the future, and one might as well get on board.

But as evident as this transition was, it was still interpreted in different ways. For some, like Booth, as we have seen, it embodied civilizational progress and improvement. The railway’s particular mode of travelling, for instance, seemed to

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<sup>50</sup> John Bloomfield Jervis, *Railway Property: A Treatise on the Construction and Management of Railways* (New York: Phinney, Blakeman & Mason, 1861), 14.

<sup>51</sup> Booth, *An Account of the Liverpool and Manchester Railway*, 92.

<sup>52</sup> *Ibid.*, 94.

<sup>53</sup> Quoted in John Pendleton, *Our Railways: Their Origin, Development, Incident and Romance*, vol. 1 (London; Paris; Melbourne: Cassell & Company, Limited, 1896), 89–90.

level out the status hierarchies associated with the ‘old order,’ at least for the time it took to complete a journey. As one historian declared in 1896, despite its differentiation between ‘classes’ of passengers, ‘the railway has done a great deal towards breaking down class barriers, and the nobleman and navvy have lately been passengers in the same carriage.’<sup>54</sup> In fact, the ‘social relations and revelations’ of the railway was a central theme even in the earliest published accounts of its history.<sup>55</sup>

‘Civility to all, gentle and simple, is the rule introduced by the English railway system,’ stated journalist Samuel Sidney in his travel guide from 1851. ‘[E]very porter with a number on his coat is, for the time, the passenger’s servant.’<sup>56</sup>

The railway could equally be perceived as a catalyst of civilization by force of its material extension into new geographical areas. In 1904, journalist John Morrison Davidson looked back on the laying of tracks in the provinces, comparing it to ‘preparing the way for the Lord:’

Is not the railway contractor, who by the new railways takes the blessings of civilisation into some out-of-the-way part of the country, levelling up or bridging over the hollows and levelling down the hillocks or tunnelling the mountains as he lays his level track – almost literally exalting the valleys, and bringing low the mountains, and quite literally “making the rough places plain”?<sup>57</sup>

Davidson discerned a providential purpose behind the railways’ dissemination of civilizational qualities into formerly ‘isolated’ and ‘backward’ rural areas. In the ‘modern age,’ the railways had simply ‘become a necessity of existence for us all.’<sup>58</sup> The railways themselves *were* the civilizing process made manifest.

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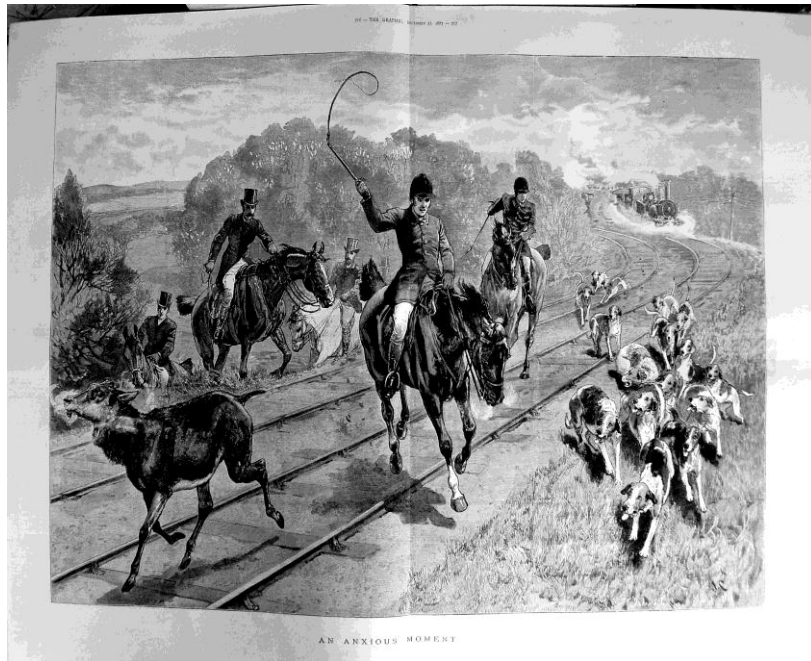
<sup>54</sup> Ibid., 1:90.

<sup>55</sup> John Francis, *A History of the English Railway: Its Social Relations and Revelations 1820-1845* (London: Longman, Brown, Green, & Longmans, 1851).

<sup>56</sup> Samuel Sidney, *Rides on Railways Leading to the Lake & Mountain Districts of Cumberland, North Wales and the Dales of Derbyshire; with a Glance at Oxford, Birmingham, Liverpool, Manchester, and Other Manufacturing Towns* (London: William S. Orr & Co., 1851), 12.

<sup>57</sup> Philip Burt, *Some Problems in Modern Railway Transportation* (Leeds: Chorley and Pickersgill, the Electric Press, 1904), 14.

<sup>58</sup> John Morrison Davidson, *Free Trade Versus Fettered Transport* (London: Francis Riddell Henderson, 1904), 19.



**Figure 4.4 – The old world and the new. ‘An Anxious Moment,’ *The Graphic*, 1887]**

For others, however, the extension of railways into the countryside indeed constituted an irreversible historical transition, but one to lament and reluctantly come to grips with; they missed the old world, or at least felt that the transition had been unnecessarily violent (see figure 4.4). In a famous formulation published in *The Cornhill Magazine* in 1860, William Thackeray declared that his generation, who had grown up without railways

belong[ed] to another world ... It was only yesterday; but what a gulph between now and then! *Then* was the old world ... [Y]our railroad starts a new era, and we of a certain age belong to the new time and the old one. We are of the time of chivalry ... We are of the age of steam. We have stepped out of the old world on to Brunel’s vast deck... We elderly people have lived in that prærailroad world, which has passed into limbo and vanished from under us ... They have raised railroad embankments up, and shut off the old world that was behind them... We who lived before the railroads, and survive out of the ancient world, are like Father Noah and his family out of the Ark... We who lived before railways – are antediluvians – we must pass away. We are growing scarcer every day; and old – old – very old relicts of the times when George was still fighting the Dragon.<sup>59</sup>

For Thackeray, the railway embankments hid from view a bygone age of chivalry and honour. Such occasional negative reactions against railway expansion in rural areas are well-known. Before the long-term financial advantages of railway investment

<sup>59</sup> William Makepeace Thackeray, “Roundabout Papers - No VIII: De Juventute,” *The Cornhill Magazine* 2, no. 10 (October 1860): 503–5. Emphasis in original.

became more obvious and intriguing, and despite receiving some protection in the *Land Clauses Bill* in 1845, the expansion of railways into private land spurred controversy among the landowning classes. Provincial railway expansions also included land expropriation sanctioned by Parliament, prompting wide discussions about the nature of land as ‘property.’ As one historian puts it, ‘the railway invasion of the land ... brought about the most dramatic infringement on private property rights in England since the Civil War.’<sup>60</sup> The railways could be cast as destroyers of century-old reciprocal patrician-plebeian relations, the embodiment of a modern ‘technocracy’ threatening to ‘defeat the old order’s’ faithful communities and parochial structure of authority.<sup>61</sup> Railway contractors surveying new routes risked being welcomed by rock-throwing tenants fighting for their lord and familiar habitus – sometimes even on their own initiative.<sup>62</sup>



**Figure 4.5 – The railway’s impact on the rural landscape became a popular artistic theme. *Illustrated London News*, 1886**

Others protested on the basis of romantic ideals. Poet William Wordsworth famously opposed (in vain) the construction of a railway from Kendal to Windermere (‘Is then no nook of English ground secure/From rash assault?’<sup>63</sup>) during his country retirement, arguing that the utilitarianism invoked to legitimize the laying of tracks

<sup>60</sup> R. W. Kostal, *Law and English Railway Capitalism 1825-1875* (Oxford: Oxford University Press, USA, 1994), 144.

<sup>61</sup> Freeman, *Railways and the Victorian Imagination*, 34.

<sup>62</sup> *Ibid.*, 33.

<sup>63</sup> Wordsworth, W., “On the Projected Kendal and Windermere Railway,” quoted in James Mulvihill, “Consuming Nature: Wordsworth and the Kendal and Windermere Railway Controversy,” *Modern Language Quarterly* 56, no. 3 (1995): 305–326.



throughout the countryside was nothing but a smoke screen for investors' ruthless gambling and speculation. Other protesters, such as Robert Somervell, later followed Wordsworth's example. In 1876 Somervell published a pamphlet including a preface written by John Ruskin, protesting the plans for capitalizing on Helvellyn's limited mineral ores.<sup>64</sup> Quoting Wordsworth's earlier prognosis, he warned that 'we shall get no great art, either of pen or pencil, out of the backstreets of our manufacturing towns; and even South Kensington may be powerless to help us, if we turn the whole country into slums.'<sup>65</sup> The railways were literally changing the appearance of the ancient country (see figure 4.5).

In urban areas, where railways were constructed both under and above the ground, the railways equally materialized a qualitative shift between past and present.<sup>66</sup> As was increasingly the case in rural areas, their extension was spurred on by urban 'landowners [who] were ... the most important single agents of change,' profiting at every developmental stage.<sup>67</sup> As a result, within a single generation, in the words of one scholar, '[t]he plans of British towns no matter how individual and diverse before 1830, [were] uniformly super-inscribed ... by the gigantic geometrical brush-strokes of the engineers' curving approach to lines and cut-offs, and franked with the same bulky and intrusive termini, sidings and marshalling-yards.' Located at the heart of the cities rather than at their borders, the new 'city gates' of the railway stations literally wiped century-old streets and familiar shops off the map (see figure 4.6). Newly constructed viaducts provided new views—in more than one sense—of slum-like areas either formerly 'hidden' or now lying in the deep shadows created by the viaducts themselves, thus placing before the eyes of the passengers the paradoxically 'backward' creatures of civilization. As Katy Jones has argued, viaducts provided novel vantage points from which 'pre-existing topographical hierarch[ies]' were implicitly challenged, creating 'a sense of depth and permeability' in town centres hitherto only represented on two-dimensional maps. Furthermore, viaducts could—

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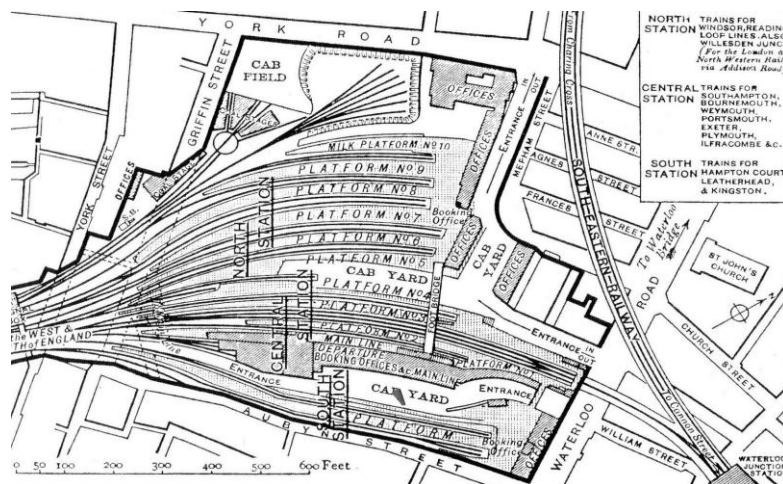
<sup>64</sup> Robert Somervell, *A Protest Against the Extension of Railways in the Lake District* (London: Simkin, Marshall & Co., 1876).

<sup>65</sup> *Ibid.*, 27. The project was eventually abandoned, probably more due to its unprofitability than to Somervell's efforts. Harriet Ritvo, *The Dawn of Green: Manchester, Thirlmere, and Modern Environmentalism* (Chicago and London: University of Chicago Press, 2009), 23.

<sup>66</sup> In 1855 an Act of Parliament approved the construction of the Metropolitan Railway, which was to run underground between Farringdon Street to Paddington Station, where it connected to the Great Western Railway. In 1884, an Act was passed approving the first electric underground railway in London. Hamilton Ellis, *British Railway History: An Outline from the Accession of William IV to the Nationalisation of Railways, 1877-1947*, vol. 2 (London: George Allen & Unwin Ltd, 1959), 150–4.

<sup>67</sup> Kellett, *Railways and Victorian Cities*, 2, 421.

like station buildings, bridges, or tunnels—come to constitute new landmarks in the cityscapes, their monumental structures overtaking the symbolic importance of churches or town halls.<sup>68</sup> In both rural and urban areas, then, the railway came to constitute a material embodiment of an epoch-making historical transition.



**Figure 4.6 – Plans for the extension of Waterloo Station in London, 1895**

While the railway constituted an irreversible and future-oriented transition from past to present, it also catalysed unprecedented interest in the past it left behind. Across Britain, as railway excavations made way for the new world, they literally unearthed strata of a former world, together with the alien and frightening creatures that had inhabited it.<sup>69</sup> With this unprecedented availability of rock cuttings and fossils, there was no wonder that the geological sciences experienced a nation-wide popularity boost; indeed, railway companies occasionally sought to emphasize both the scientific usefulness and the sublime sense of ‘deep time’ associated with excavations that might otherwise be highly unpopular among land-owning gentry.<sup>70</sup> Some early historical accounts of the railways contained several pages describing geological observation.<sup>71</sup> In the 1840s, geologist and palaeontologist Gideon Mantell travelled regularly (by train) to railway excavation sites to handpick fossils for his study.

<sup>68</sup> Katy Jones, “The View From the Viaduct: The Impact of the Railways Upon Images of English Provincial Towns, 1830-1857,” in *New Perspectives in British Cultural History*, ed. Rosalind Crone, David Gange, and Katy Jones (Newcastle: Cambridge Scholars Publishing, 2007), 8–21.

<sup>69</sup> Michael Freeman, “Tracks to a New World: Railway Excavation and the Extension of Geological Knowledge in Mid-Nineteenth-Century Britain,” *The British Journal for the History of Science* 34, no. 1 (2001): 51–65.

<sup>70</sup> This popularity boost is commonly associated with the work of Charles Lyell. See Charles Lyell, *Principles of Geology: Or, the Modern Changes of the Earth and Its Inhabitants, Etc.*, vol. 3, 3 vols. (London: John Murray, 1840).

<sup>71</sup> See e.g. John C Bourne, *The History and Description of the Great Western Railway, Including Its Geology, and the Antiquities of the District Through Which It Passes; Accompanied by a Plan and Section of the Railway, a Geological Map, and by Numerous Views of Its Principal Viaducts, Bridges, Tunnels, Stations, and of the Scenery and Antiquities In Its Vicinity* (London: David Bogue, 1846).

Likewise, his colleague William Buckland often gave his lectures on board trains, pointing out and commenting on the visible sedimentary layers and rock formations passing by, as the train moved through the landscape.

The metropolis itself became an important site of such ‘accidental archaeology.’<sup>72</sup> One result of the excavations for the metropolitan underground railways was the uncovering of London’s Roman past, made immediately accessible to the city’s population. Roman Londinium, whose fragmental remnants were ‘thrust ... into the daily experience of the public,’ became both a sign of all that had been and was no more, and an inspiration for those writing about its present and its possible future state. As Virginia Zimmerman puts it, ‘[e]xcavation in the name of the future led quite literally to London’s past.’<sup>73</sup> The possible decline and degeneration of modern London into the state of its ancient Roman alter ego, whose structures were now being rediscovered, increasingly became the theme of dystopian novels towards the end of the century.<sup>74</sup> Joseph Conrad’s *Heart of Darkness*, for instance, initially published in three parts in *Blackwood’s Magazine* in 1899, opened with a description of London as the ‘biggest, and the greatest, town on earth,’ from where imperial greatness had spread throughout the world, and equally ‘one of the dark places of the earth.’ As Conrad’s narrator travelled down the Thames in the sunset, he described his panoramic view of the metropolis in terms of light and darkness:

A haze rested on the low shores that ran out to sea in vanishing flatness. The air was dark above Gravesend, and farther back still seemed condensed into a mournful gloom, brooding motionless over the biggest, and the greatest, town on earth...

... And at last, in its curved and imperceptible fall, the sun sank low, and from glowing white changed to a dull red without rays and without heat, as if about to go out suddenly, stricken to death by the touch of that gloom brooding over a crowd of men...<sup>75</sup>

Here, present civilization and past barbarism were indistinguishable; like sea and sky, for the few minutes it took the dark metropolis to swallow up the daylight as the sun

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<sup>72</sup> Virginia Zimmerman, *Excavating Victorians*, Suny Seris, Studies in the Long Nineteenth Century (Albany: State University of New York Press, 2008), 98.

<sup>73</sup> *Ibid.*, 129.

<sup>74</sup> See e.g. Richard Jefferies, *After London: Or, Wild England* (London: Cassell & Company, Limited, 1886).

<sup>75</sup> Joseph Conrad, *Heart of Darkness; With the Congo Diary* (London: Penguin Books, 2000), 15–18.

set behind it, the two were ‘welded together without a joint.’ Indeed, the light of civilization contained within itself its own form of barbarian darkness.

Notwithstanding such dystopian visions, the past ‘made present’ through railway excavations could equally be perceived as invigorating and creating new opportunities for a town. In 1845, the quiet town of Lewes was in the process of acquiring its long sought-after railway line connecting it to London and Brighton. While digging near an early medieval monastery outside the town, navvies uncovered two coffins. By this point, the excavation work had already destroyed much of the great church, cloister, and chapel house at the site. These two lead caskets, however, gave reason for pause. A local antiquarian (who was at the site hoping for just such an occasion) was called upon, and it turned out the caskets contained the remains of Norman nobility, namely William de Warenne and his wife Yundreda, who had founded the monastery between 1078 and 1082. The discovery was widely reported in the press, prompting reflections on its historical significance (see figure 4.7). A reporter sent to the site from *Illustrated London News* put it thus:

Strange, indeed, are the changes brought by time and man’s ingenuity; for these relics of nearly eight centuries since have been upturned in a work peculiar to our own times – the construction of a railway; and this by a circumstance purely accidental, and but for which the Relics might have rested for many more centuries.<sup>76</sup>

A reporter from *Sharpe’s London Magazine* mused on the experience of wandering among the medieval ruins:

To descend into the vaults where in the strange silence rests a line of kings will call up such thoughts the damp mouldiness of the crimson velvet and the tarnished crown then become suggestors of that past state of society in which those entombed beings now voiceless and sceptreless moved and ruled. Nor are our hearts stirred less when sitting on the moss covered and fallen column of some abbey of the middle ages we gaze on the graves where the noble sleep with the wild flowers clustering on their graves of which no lettered monument now speaks. The stone coffin of yon Norman lady is before us. Yundreda, the daughter of kings a descendant of the far famed Roland, lies beside a railway excavation: and rough men take those bones in their hands antiquarians examine and crowds of novelty hunting visitors *pay* for a view of that stone house of the dead. What a contrast is there! on one side *our* life with its ceaseless tides and far sounding hum of work, its science, and its railways. There in the remoteness we see the Norman life, in castles and abbeys with its intense and fervid workings so

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<sup>76</sup> *Illustrated London News*, VII, No.184 (November 8, 1845): 296-297.

distinct from our own. Wide is the gulf between those times and the present.<sup>77</sup>

To walk where they walked, and to sit where they sat: the gulf between the present and the past might be wide, yet the past was entirely and materially present.



**Figure 4.7 – The archaeological discoveries at Lewes, *Illustrated London News*, 1845**

The railway, ‘the archetypal herald of progress,’ hence not only erased former urban centres off the map; it could also lead to a renewed—or indeed unprecedented—concern for local places and their historical and cultural ‘roots.’<sup>78</sup> The railway was ‘the future’ and certainly local councils vying to get a railway line close to the town were well aware of the boost this could potentially bring. Yet in this very act, as in the example of Lewes, the railway might ‘recover’ the ancient character of that very place. This was more than an abstract ‘awareness’ of the past. As Charles Dellheim

<sup>77</sup> W.D., “The Norman Grave Opened in 1846,” *Sharpe’s London Magazine: A Journal of Entertainment and Instruction For General Reading, with Elegant Engravings* 6 (1848): 75–76.

<sup>78</sup> Charles Dellheim, *The Face of the Past: The Preservation of the Medieval Inheritance in Victorian England* (Cambridge et al.: Cambridge University Press, 1982), 35.

puts it, ‘for most Victorians, the sense of the past was ... shaped in direct encounter[s] with material objects.’<sup>79</sup> Unearthed archaeological remains could ‘remind’ the population of the town of their ‘ancient heritage,’ real or imagined—recalling what Eric Hobsbawm dubbed the ‘invention of tradition’<sup>80</sup>—to which the railway might indeed be seen as a modern and destructive threat. The excavations and archaeological research spurred by the Lewes discovery soon resulted in the founding of the Sussex Archaeological Society, and stimulated popular interest in a peculiar Victorian activity: heritage conservation. On the one hand, then, modern technologies were intended to give the town a sense of identity it had never before possessed; on the other, it became imperative that the very same technologies did not destroy the ancient sense of identity that the town had (apparently) always possessed.

In this way, the coexistence and combination of railways and ancient relics helped to forge a new identity for Lewes, making it a sightseeing attraction and hence providing new local pride based in notions of historical importance. ‘Our town,’ boasted antiquarian Mark Antony Lower in an article about the Lewes excavations, ‘is rapidly rising with greater celebrity than it has ever yet enjoyed.’<sup>81</sup> The Lewes of the past became the defining characteristic of the Lewes of the present. Tourists (a word invented by Victorians) seeking to experience this amalgam of the old and the new were brought to the site by the very railway at once responsible for its recent discovery and its potential destruction (and consequential need for conservation); the railway caused at once new vitality and ancient fragility.

#### SYNCHRONIZATION AND COORDINATION

As we have seen, the decades from the mid-1870s until 1914 were largely characterized by the larger railway companies<sup>82</sup> consolidating and regulating their territorial monopolies rather than investing in novel construction schemes:<sup>83</sup> few new

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<sup>79</sup> Ibid., 37.

<sup>80</sup> Eric Hobsbawm and Terence Ranger, eds., *The Invention of Tradition*, Past and Present Publications 9 (Cambridge et al.: Cambridge University Press, 1983), 1–14.

<sup>81</sup> Quoted in Dellheim, *The Face of the Past: The Preservation of the Medieval Inheritance in Victorian England*, 36.

<sup>82</sup> During the expansive decades between 1850 and 1870, many smaller companies struggling to maintain the expected standards were absorbed into larger companies, and several medium-sized companies amalgamated to form relative territorial monopolies, such as the North Eastern and the Great Eastern. Jack Simmons, *The Railways of Britain* (London: Sheldrake Press Limited, 1986), 26–7.

<sup>83</sup> Gregory and Henneberg, “The Railways, Urbanization, and Local Demography in England and Wales, 1825–1911,” 203.

lines were opened,<sup>84</sup> and the few that were mostly covered distances already covered by rival companies.<sup>85</sup> Instead, competition came to centre on passengers, offering higher speeds and some improvement in comfort. The increase in speed caused an increase in both the number and severity of accidents, which again—together with growing unpopularity and so diminishing profits—became an incentive for technological innovation in the areas of temporal coordination, synchronization, and standardization on a national, and eventually global, scale: the railways became a prime site for the dissemination of a concept of secular time to the nation as a whole. Chapter 3 described how a concept of secular time underpinned the notion of a civic time enveloping an entire town or parish, as a premise for the constitution of these as unified and synchronous ‘social’ entities centred on a single time signal: abstracted from local particularities, time could be imagined as universal, moving independently and as if parallel with the world. Before the nineteenth century, the only way to extend the reach of a local time beyond its aural or visual borders (that is, beyond the reach of public dials or bells) had been to manually transport a timekeeper from one place to another, while trying to ensure that this piece of equipment remained completely stable throughout its passage. By contrast, the Victorian achievement of successfully extending the secular present so as to envelope the entire nation (and beyond this, the globe) was accomplished—as we shall see—through the mobilization of a vast range of technologies and forces, and primarily through the proactive work of temporal coordination, synchronization, and standardization.

By the 1840s, the railway network was connecting more and more cities, and Henry Booth—forever the visionary—saw no reason not to extend the shared civic simultaneity beyond city borders. Indeed, in 1847 he argued that railways had already made this a practical necessity. ‘All ordinary measurements, whether of time or distance, will soon become obsolete ... We have discovered that twelve does not mean twelve, nor ONE, ONE. P.M. in the east is A.M in the west.’<sup>86</sup> This was made increasingly felt in everyday life by the use of railway travel and transport, he argued, inevitably causing confusion and absurdities, and this would only increase with the

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<sup>84</sup> For some exceptions to this rule, see Wolmar, *Fire and Steam*, 124.

<sup>85</sup> This has led some historians to lament the inefficiency of the system as a whole, and the way the government managed its growth. See for instance Mark Casson, *The World’s First Railway System: Enterprise, Competition and Regulation on the Railway Network in Victorian Britain* (Oxford: Oxford University Press, 2009).

<sup>86</sup> Henry Booth, *Uniformity of Time, Considered Especially in Reference to Railway Transit and the Operations of the Electric Telegraph, in a Letter to the Right Hon. Edward Strutt, M.P., Chairman to the Railway Commissioners* (London and Liverpool: John Weale in London; Thomas Baines in Liverpool, 1847), 13.

establishment of telegraphic networks, which, he predicted, would soon be extended throughout the country. For Booth, such a shared national moment was more than a pragmatic necessity; it was a thing of beauty. Peaceful and safe coexistence was at stake: ‘instead of confusion, there would be harmony; instead of complexity, simplicity; instead of multiplicity, unity.’<sup>87</sup>

[B]ehold the portrait as it might be. The great bell of St. Pauls strikes ONE, and, simultaneously, every City clock and Village chime, from John of Groat’s to the Land’s End, strikes ONE, also . . . There is sublimity in the idea of a whole nation stirred by one impulse; in every arrangement, one common signal regulating the movements of a mighty people.<sup>88</sup>

One technology in particular would be important in achieving this, he argued. ‘[I]f the introduction of railways, from the multiplication of travellers and increased rapidity of transit, add a five-fold strength, by practical illustration, to the necessity which is more and more felt, for *uniformity of Time*, the urgency will be rendered infinitely more glaring, by the establishment of the Electric Telegraph.’<sup>89</sup> As Booth predicted, the electric telegraph did indeed come to play an important role in the process, though more than half a century would pass before time synchronization could be made entirely automatic.

Nonetheless, the work of national coordination was already underway in the 1840s. In 1842, the Railway Clearing House was launched, initially for the purpose of coordinating passenger transitions between companies and to ensure the settling of inter-company debt. In the following decades, however, it became the central hub of the increasingly integrated and temporally synchronized railway network.<sup>90</sup> By the mid-nineteenth century, there were approximately 100 railway companies, of which a dozen controlled approximately half of the lines. The coordination of such a complex system was a daunting task, but the increasing level of interconnectivity (and competition) left no doubt about its necessity. One example was the so-called ‘Battle of the Gauges’ during the early decades of the railway network: the remarkably fierce disputes between prolific engineers working for different companies over what should be the standard distance between the rails. George Stephenson had adopted the gauge

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<sup>87</sup> Ibid., 16.

<sup>88</sup> Ibid., 10–11.

<sup>89</sup> Ibid., 12. Emphasis in original.

<sup>90</sup> One of its by-products was a national standardized ticket system, which spread throughout the world and lasted for more than 150 years until the introduction of computer-generated tickets. Wolmar, *Fire and Steam*, 104.



in common use in the coal industry, 4 ft. 8½ in., commonly called ‘narrow gauge’ and insisted on keeping to this. By contrast, when traders in Bristol sought to connect their growing town to London in 1833, their (later Great Western Railway) engineer, Isambard K. Brunel constructed a gauge of 7 ft. to gain greater speed and steadiness. The lack of uniformity between different lines soon caused inconvenience to merchants in towns such as Birmingham, who lost traffic from the ‘break of gauge’ at Gloucester. In 1846, the Gauges Act was passed, making it illegal to ‘construct any railway for the conveyance of passengers on any other gauge than 4 feet 8½ inches in Great Britain.’<sup>91</sup> Though the Great Western and other companies continued constructing ‘mixed’ lines where trains of both gauges could run, these were the initial steps towards national standardization of railway gauge. Conversion of broad and mixed gauge into the now standard narrow gauge continued and was finalized in 1892.

While the ‘Battle of Gauges’ was important for railway companies and merchants, for railway passengers the biggest cause of inconvenience was temporal asynchrony. Already in the early 1840s, temporal punctuality was essential to railway travel. In 1842, the *Illustrated London News* made sure to measure the length of one of the Queen’s train trips in minutes: ‘The Royal train left the station at 7 minutes past 1 o’clock, and arrived at Paddington at 35 minutes past, performing the distance in 28 minutes.’<sup>92</sup> In fact, leaving on time was a main concern right from the early beginnings of passenger trains, even though due to the unpredictability of the locomotives and the fact that trains only stopped at intermediary stations on specific request, no arrival time was announced. As one historian puts it, ‘[p]eople getting on the train along the way had to make an informed guess about when it might arrive.’<sup>93</sup>

Missing a train was obviously inconvenient, but there were other, more pressing, reasons for coordinating railway signalling: railway accidents. ‘What would not be thought of a Government which could contrive to render railways universally safe, generally punctual, and always moderate in their charges?’ asked a *Times* editorial, rhetorically, in 1853.<sup>94</sup> ‘With strict punctuality, and careful management, railway accidents ought to be almost unknown,’ declared one writer in 1862. ‘The most

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<sup>91</sup> *An Act for Regulating the Gauge of Railways*, 9 & 10 Vict., Cap. LVII (London: Eyre & Spottiswoode, 1846).

<sup>92</sup> *The Illustrated London News*, May 14 to December 31, 1842: Supplement to the *Illustrated London News*, vol. 1st (London: William Little, 1843), 215.

<sup>93</sup> Wolmar, *Fire and Steam*, 47.

<sup>94</sup> Anon., “Editorial,” *The Times*, no. 21343 (February 4, 1853): 4.

frequent cause of railway accidents is want of punctuality...Nine-tenths of the collisions which have occurred since the first railway was opened have been occasioned by neglecting to keep up to the time fixed for departure or arrival...collisions would be impossible if each train was despatched at the proper time, and travelled at the proper speed.’<sup>95</sup> The *Railway Traveller’s Handy-Book* (1862) assured its readers that ‘[t]he time of departure stated in the table is no fiction; the strictest regularity is observed, and indeed must necessarily be, to prevent the terrible consequences that might otherwise ensue,’ and encouraged passengers to be ready for departure five minutes earlier than the stated time.<sup>96</sup> Yet the fact that an increasing number of passengers owned their own clock did not help in and of itself. ‘[A] large proportion of the travellers by railway, possess only vague notion on the subject [of longitudinal variation], and many disappointments ensue from their arriving too late, in consequence of their not understanding that their own clocks show one time while the trains work by another,’ clock maker and later official time regulator in London, B.L. Vulliamy pointed out in 1845. Hence, he added, ‘[i]f one uniform rate of time keeping was adopted on railways, it would tend greatly to diminish the risk of collisions on trains.’<sup>97</sup>

Imprecision was not only due to passengers lack of time-reading skills; it was symptomatic of the system itself. From the early days of the railway, trains had been coordinated purely on the basis of time intervals measured by independent (that is, unconnected to each other) clocks, sometimes supplemented with simple hand signals.<sup>98</sup> Provided the station clerk was attentive and had been supplied with a clock (neither which was always the case), the departure of the train would then be synchronous with a particular moment displayed on the station clock. Yet this did not entail any overall accuracy relative to when other trains left other stations, or guarantee that the next departing train would not unexpectedly catch up with the previous one. Indeed, the relative speed of the respective trains was not taken into consideration together with the time interval.<sup>99</sup> Furthermore, due to the obvious

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<sup>95</sup> Anon., “Railway Accidents,” *The Threepenny Magazine*, 1862.

<sup>96</sup> Anon., *The Railway Travellers’ Handy-Book of Hints, Suggestions, and Advice, Before the Journey, on the Journey and After the Journey* (London: Lockwood and Co., 1862), 28.

<sup>97</sup> B.L. Vulliamy, “On the Construction and Regulation of Clocks of Railway Stations,” *The Civil Engineer and Architects Journal* 8 (August 1845): 255.

<sup>98</sup> David Bawden and Toni Weller, “The Social and Technological Origins of the Information Society: An Analysis of the Crisis of Control in England, 1830-1900,” *Journal of Documentation* 61, no. 6 (2005): 777–802.

<sup>99</sup> Alfred Ogan, *Railway Collisions Prevented* (London: G.J. Pope, 1855), 8.

differences in local and regional time, arrival times were not notated at all in the first half of the century.<sup>100</sup> Misreading of local timetables and the mere absence of coordinated timetables between companies operating the same line were both major reasons for railway accidents, together with the lack of signalling means. As Wolmar describes,

[p]olicemen would be sited at key points along the line [...] and were instructed to give a 'Stop' signal if a train had passed within the last ten minutes, a 'Caution' if more than ten but fewer than seventeen minutes had elapsed, or otherwise a sign to proceed. If a train broke down, the policeman was supposed to run back a mile down the track to protect the train from oncoming traffic by showing a hand signal.<sup>101</sup>

The electric telegraph provided a viable solution to these problems, albeit not without decades of experimentation. Already in 1839, Great Western Railways had set up a telegraph wire along the 13 miles of track between Paddington and West Drayton—and extended it to Slough in 1843—and during the following three decades a number of technological improvements were made.<sup>102</sup> At first, however, these telegraph systems were used merely for communication between stations, in combination with manual signalling. In other words, the system still relied on too many factors to provide the desired security. Someone had to be attentive at the receiving end, for instance, in order to read the 'Line Clear' or 'Line Blocked' signal, and pass this message on to those manually giving signals along the line. '[F]or the purposes of warning to a coming train, and avoiding collisions, a man, on foot, with a flag, or a lantern, or a fog-signal, is not the best medium; and ... *as a principle*, machinery might be superadded, – for I would not depend on either alone,' stated Brighton journalist William Peters in 1853.<sup>103</sup> Nevertheless, he admitted, '[t]he Electric Telegraph is, of course, calculated to be an important help in signalling, and preventing collisions.'<sup>104</sup> Only when fully automatic signalling systems were adopted, such as those patented by Edward Tyer in 1852 and 54, could engine drivers and

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<sup>100</sup> Bawden and Weller, "Social and Technological Origins."

<sup>101</sup> Wolmar, *Fire and Steam*, 47–8.

<sup>102</sup> Bawden and Weller, "Social and Technological Origins," 782.

<sup>103</sup> William Peters, *Railway Dangers; and How to Avoid Them* (Effingham Wilson, Royal Exchange, 1853), 37.

<sup>104</sup> *Ibid.*, 38–9.

signalmen communicate without using semaphore or other manual modes of signalling (see figure 4.8).<sup>105</sup>



**Figure 4.8 – A railway signal office, *The Graphic*, 1892**

With the telegraph system in place, it did not take long before its potential beyond railway signalling became clear. Despite Booth's predictions cited above, the idea of using the telegraphic network for distributing 'true time' to the entire nation even beyond railway stations is often attributed to George B. Airy, Astronomer Royal from 1835 to 1881. 'I have ... always considered it a very proper duty of the National Observatory to promote by utilitarian aid the dissemination of a knowledge of accurate time which is now really a matter of great importance,' he stated to the members of the Horological Institute in 1865.<sup>106</sup> Initially, Airy sought to make all the clocks at the Greenwich Observatory dependent on a single clock, using an electrical current, but he soon realized that the telegraph system could be used to distribute correct Greenwich Mean Time (GMT) to clocks at much greater distance.<sup>107</sup> In 1847, the Railway Clearing House had recommended that all railway lines adopt GMT, and by the next year many lines did precisely so.<sup>108</sup> The railway companies' decision was received with wide acclamation. 'We can scarcely over-rate the importance of these

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<sup>105</sup> Edward Tyer's system was only one out of many, and they were all being continuously developed throughout the latter half of the century. An overview of the developments in railway telegraphy during these decades can be found in Steven Roberts, "Railway Signal Telegraphy," *Distant Writing: A History of the Telegraph Companies in Britain Between 1838 and 1868*, 2011, <http://distantwriting.co.uk/railwaysignaltelegaphy.aspx>. Accessed 26/05/2012

<sup>106</sup> William Ellis, "Lecture on the Greenwich System of Time Signals, Delivered in the Society of Arts' Room, February 24, 1865, Before the Members of the British Horological Institute," *The Horological Journal* 7 (April 1, 1865): 123.

<sup>107</sup> John A. Chaldecott, "Platinum and the Greenwich System of Time-Signals in Britain: The Work of George Biddell Airy and Charles Vincent Walker from 1849 to 1870," *Platinum Metals Review* 30, no. 1 (1986): 29–37.

<sup>108</sup> Howse, *Greenwich Time and the Longitude*, 94.

arrangements, and especially that of transmitting GMT to all parts and to all parts of the kingdom,' declared *The Times* in 1852 when reporting the decision to automatically synchronize the South-Eastern Railway station clocks from Greenwich using telegraphic signals.

The falling ball of the Royal Observatory, so long the standard reference for mean time, will be visible, so to speak, throughout the land ... wherever ... the net-work of telegraph wire has penetrated ... Railway companies will find the advantage of these arrangements, for they will have Greenwich time "at their finger's ends," and will really be able to keep uniform time.<sup>109</sup>

The eventual establishment of uniform time demanded continuous technological experimentation.<sup>110</sup> For most of the late nineteenth century, the telegraphic signal sent out to stations still required manual correction of individual clocks, and so depended on the attention of station employees. The Greenwich master clocks themselves were reset every morning before 10am (except on Sundays, when they were set before 1pm).<sup>111</sup> While railway companies had GMT transmitted by telegraph to various stations, this did not necessarily mean that stationmasters remembered to regulate the station clocks. This sometimes resulted in the distribution of untrue time throughout the network, as train guards set their clocks to the platform clock before departure. In 1862, one reader of *The Horological Journal* complained that 'accurate Greenwich Time' was 'indispensable,' but 'had never been procurable with either sufficient accuracy or facility.'<sup>112</sup> As late as 1908, *The Times* editorial complained that it was close to impossible to

ascertain the true time in many parts of this country. Railways are supposed to keep it but the clocks at roadside stations are of no very extreme accuracy, and even if they are frequently corrected they are very apt to be jarred out of truth by the shock of passing trains.<sup>113</sup>

By 1855 most of England's public clocks were set to GMT. However, some traditional clock makers remained sceptical as to the value of electrical timekeeping,

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<sup>109</sup> Anon., "Time Signals and Transit Signals," *The Times*, no. 21035 (February 11, 1852): 8.

<sup>110</sup> For an introduction to the Victorian concern with temporal punctuality and a survey of the many clocks available, see Richard Goods, *Victorian Clocks* (London: British Museum Press, 1996).

<sup>111</sup> Ellis, "Lecture on the Greenwich System of Time Signals," 91.

<sup>112</sup> Chronometer Maker, "The Greenwich Time Wire," *The Horological Journal* 5 (October 1, 1862): 21.

<sup>113</sup> Quoted in Hannah Gay, "Clock Synchrony, Time Distribution and Electrical Timekeeping in Britain 1880-1925," *Past & Present*, no. 181 (2003): 113.

particularly when it came to distributing true time beyond a few public clocks.<sup>114</sup> Furthermore, while the railway companies' clocks were synchronized, this did not necessarily mean that this applied to passengers' private clocks. Indeed, people living in a provincial town would still have to walk or ride a carriage to the station or Post Office in order to be 'connected' to the time-distributing network.<sup>115</sup> One early objection was precisely that 'although [London time] might be observed correctly along the line, it would not be adopted in the tracts of country between the railways, and hence constant errors would occur.'<sup>116</sup> Also, many station clocks had two sets of hands, showing both railway time and local time, thereby, implicitly or otherwise, endorsing the legitimacy of both. Furthermore, as time distribution came to be subject to competition between different companies, there was inevitably regional variation incompatible with the vision of a single temporal grid encompassing the whole nation. Notwithstanding these practical limitations, national uniformity of time was increasingly treated as a 'given,' a fact whose realization was merely a question of technological means. When, in 1880, the *Statutes (Definition of Time) Act*—seeking to rid legal texts of any lingering confusion—proclaimed that if nothing else was stated, GMT was the time referred to, it was a formal acknowledgement of something already considered common sense.<sup>117</sup> Indeed, in the 1880s, automatic synchronization of public clocks became technologically possible. In a lecture to the Society of Telegraph Engineers in 1881, inventor John Alexander Lund described how he had 'been for four years continuously engaged in inventing and perfecting a system for ensuring uniformity of time between our public and private clocks,' and some of the difficulties in synchronizing clocks of different kinds.<sup>118</sup> The central feature of Lund's synchronizing device was a mechanical 'finger and thumb [which would] take hold of the [clock's] hand at the right moment and put it, fast or slow, in its right place' (see figure 4.9). Being in charge of the distribution of uniform time to London, he had divided London into twelve districts, each with its own electrical current, and each giving report on whether the synchronizing was working. But the possibilities offered by electrical signalling together with his patented 'synchronizer' extended far beyond

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<sup>114</sup> Gay, "Clock Synchrony."

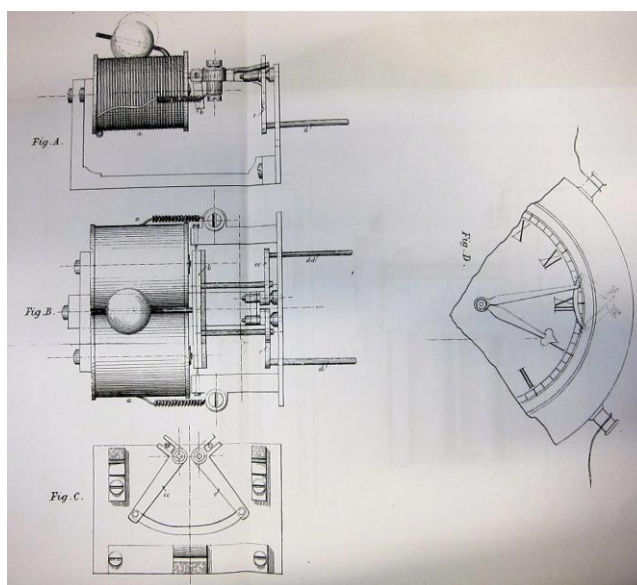
<sup>115</sup> May and Thrift, "Reflections," 18.

<sup>116</sup> Vulliamy, "Construction and Regulation," 256.

<sup>117</sup> *An Act to Remove Doubts as to the Meaning of Expressions Relative to Time Occurring in Acts of Parliament, Deeds, and Other Legal Instruments*. 43 & 44 Vict., C. IX (London: Eyre & Spottiswoode, 1880).

<sup>118</sup> John Alexander Lund, *Synchronized Clocks: A Verbatim Report of a Lecture Delivered Before the Society of Telegraph Engineers, London*. (by the Inventor) (London: Effingham Wilson, Royal Exchange, 1881), 3.

the borders of the capital, argued Lund, and gave the example of ‘a clock [which] has been synchronized at Dumbarton (a distance of 400 miles) to two years, without a single failure, [to the expressed joy of the local authorities].’<sup>119</sup> For Lund, as for many others, only temporary technological hindrances stood between the successful distribution of GMT.



**Figure 4.9 – Lund’s synchronizer**

As was noted in chapter 3, Greenwich Mean Time was indeed eventually distributed—albeit indirectly—far beyond national territory. In October 1884, the International Meridian Conference proposed that the countries represented adopt the meridian running through the Greenwich Observatory as the initial meridian for longitude. The establishing of a uniform international time was, however, an incredibly complex process. In England, as we have seen, the Astronomer Royal developed the idea, but in some other European states there were still a deep reluctance to accept the ‘primacy’ of the Greenwich meridian. In 1885, *The Times* mused on the potential difficulties of introducing GMT on a global scale, and the possibilities that would ensue should it be accomplished. ‘We [in England] already reckon by Greenwich time, and, thanks to the railways and with a view to the convenience of railway passengers, the Greenwich standard has been brought into general use in this country. For foreign countries the new system is less easy to be introduced.’ However, if there was a joint political effort by civilized countries, this could make it possible to force global time on the rest of the world, to everyone’s

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<sup>119</sup> *Ibid.*, 16.

eventual benefit. '[The Astronomer Royal] has the United States with him already in principle if not in practice, and England and the English colonies and the United States will together form a Bund too large and too influential for the rest of the nations to disregard with convenience to themselves.'<sup>120</sup>

The process was indeed a politically complex one, even if most of the necessary technology was available and in place. 'The era of world time is yet far off,' warned H.R. Mill in 1892, when Europe alone still operated with more than ten different time standards.<sup>121</sup> One reason for this international—and indeed sometimes also domestic—hesitance to accept the Greenwich meridian was that the distribution of GMT could be seen as an attempted territorial expansion of one local time (Greenwich time) to the detriment of all other such.<sup>122</sup> Since the defining line—the 'prime' meridian—went through the particular locality of Greenwich, there was a sense that the global system ultimately rested upon London sovereignty after all. Even within the national borders, there were, as noted by lawyer and clock inventor E.B. Denison, many who believed that 'if this Greenwich invasion is not resisted in its first beginnings, it will overspread the whole world, and that no place in any of Her Majesty's dominions will be able to call its time its own.' Denison, however, argued that there were no grounds for such fear. The adoption of Greenwich time was a purely pragmatic matter, and local communities should adopt it for its obvious practical advantages.

The Post-office authorities ought to order their local clocks to be kept by Greenwich time, as that and the railway together would soon induce even the cathedral clocks to follow their example. Some of them have already sacrificed their principles so far to put on another minute hand to show Greenwich time; they had better quietly give up the old one altogether.<sup>123</sup>

Midnight, for one particular locality, as Denison put it, could never be changed into midday – hence, there was no need to fear that the adoption of Greenwich time might overturn the hours of the natural day. The time conception upon which the technological distribution of uniform national and global time-frame was premised—the concept of secular time—was, he realized, entirely abstract and independent of

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<sup>120</sup> Anon., "Editorial," *The Times*, no. 31713 (March 22, 1886): 9.

<sup>121</sup> Mill, "Time Standards of Europe," 174.

<sup>122</sup> Helga Nowotny, *Time: The Modern and Postmodern Experience*, trans. Neville Plaice (Cambridge: Polity Press, 1994), 37.

<sup>123</sup> E.B. Denison, "Greenwich V. Exeter. - In The Matter Of Time," *The Times*, no. 20962 (November 18, 1851): 6.



such local particularities. The concept of secular time allowed the grasping of the entire globe as a unified and synchronous entity existing within a single moment of simultaneity – even if this moment still contained (a substantially reduced number of) 24 local times known as ‘time zones,’ ‘spaced precisely one hour apart around the globe’ through the drawing of 23 imaginary longitudinal lines designating global boundaries for the hours of the day.<sup>124</sup> Secular time remained the underlying premise, even though political factors—domestic as well as international—meant that it could not simply be imposed ‘from above,’ so to speak; indeed, as we shall see, its institution and mediation was primarily from ‘below.’

### *Constructing Immutable Travellers*

Establishing and sustaining abstract time as a simple and ‘obvious’ idea—one in which ‘the nation’ (or ‘the world’) could be conceived of as a unified and simultaneous entity—was, as argued in the preceding chapters, premised on meticulous technological and embodied transformative work performed ‘on the ground,’ so to speak. The efficiency of telegraphic distribution of ‘true time’ as a means to coordinate and smooth the workings of a nationally integrated system was premised on the network’s successful transformation of travellers into stable entities whose linear movement between spatial and temporal locations could be calculated with a high level of accuracy. More specifically, the railway network’s successful mediation of secular time was an effect of its collective attempt to turn passengers into immutable mobiles – entities able to move through a time independent of motion. This required the mobilization of a wide range of mediators—workers, tracks, carriages, dynamite, cushions, electric signals, timetables, rock formations, and even the passengers themselves—to perform the transformative work from which the immutable mobiles were to be exempted. This demanding work began not with electric signals or international diplomacy, but with shovels and steel tracks, as navvies levelled or cut through England’s rolling hills in order to construct the ‘Newtonian road.’

In a treatise republished throughout the century, scientific writer Dionysius Lardner described the railway as the closest one could get to an ideal road – that is, a road

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<sup>124</sup> Ian R. Bartky, “A Comment on ‘The Standardization of Time’ by Zerubavel,” *American Journal of Sociology* 89, no. 6 (1984): 1420–5. The eventual international acceptance of these 24 zones (which is still not entirely consistent) was itself a complex and century-long process, as Bartky argues. See Bartky, *One Time Fits All*.

without any friction whatsoever: a Newtonian line ‘absolutely smooth, absolutely level, absolutely hard, and absolutely straight.’ A carriage travelling on such a road, he wrote, would pass without meeting any frictional resistance other than the air surrounding it; and, he added, ‘[o]n railways the resistance is extremely small.’<sup>125</sup> Here, as Wolfgang Schivelbusch later noted, the abstract Newtonian road was ‘realized without compromise.’<sup>126</sup> The locomotive’s mechanical motion along the smooth iron (later steel) tracks was uniform and regular, making the train compartment a confined space-within-a-space, detached from the irregularities of rolling hills and unpredictable weather. The train moved in straight lines through the irregular countryside, while its interior—the train compartment—remained relatively stable throughout its journey. Through the extensive work of the entire railway network, then, irregularities, frictions and snags experienced inside the old stagecoach had been exorcised, and instead of the passenger’s body wearing out from being tossed about in a carriage, it was now the surrounding landscape that was shifting before the gaze of the stable observer. Already in 1830, Henry Booth had drawn attention to this peculiar effect of railway travelling.

[T]he whole character, structure, and appearance of the Railway is altogether different from the general aspect of the turnpike road. Instead of a uniform, flat and uninteresting country, the line of Railway is diversified continually by hill and dale, offered to the contemplation of the traveller in a sort of inverse presentment; the passenger by this new line of route having to traverse the deepest recesses, where the natural surface of the ground is the *highest*, and being mounted on the loftiest ridges and highest embankments, riding above the tops of the trees, and overlooking the surrounding country, where the natural surface of the ground is the *lowest*, - this peculiarity and this variety being occasioned by that essential requisite in a well-constructed Railway – a level line – imposing the necessity of cutting through the high lands and embanking across the low; thus, in effect, presenting to the traveller all the variety of mountain and ravine in pleasing succession, whilst in reality he is moving almost on a level plane, and while the natural face of the country scarcely exhibits even those slight undulations which are necessary to relieve it from tameness and insipidity.<sup>127</sup>

Characteristic of this new experience was a certain of passivity on the part of the passenger. As one writer put it in 1860:

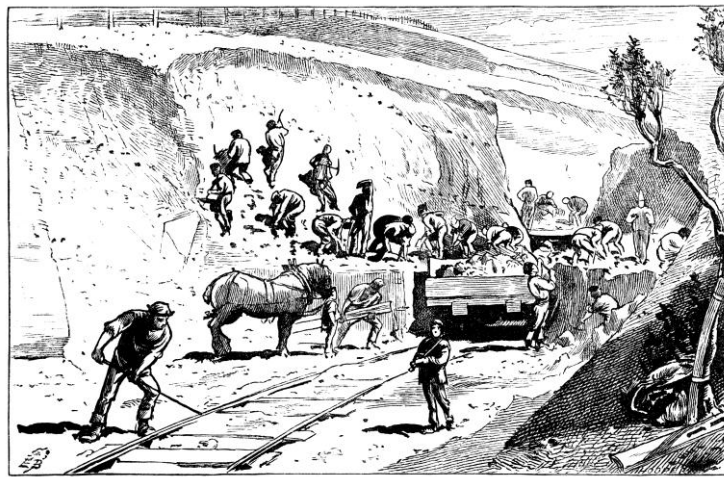
<sup>125</sup> Dionysius Lardner, *The Steam Engine, Steam Navigation, Roads, and Railways, Explained and Illustrated*, 8th ed. (London: Taylor, Walton, and Maberly, 1851), 315–16, 327.

<sup>126</sup> Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19th Century* (Leamington Spa, Hamburg and New York: Berg Publishers Limited, 1986), 22.

<sup>127</sup> Booth, *An Account of the Liverpool and Manchester Railway*, 47–8. Emphasis in original.

[T]he railway carriage is ... the safest and most luxurious conveyance. While the train is almost on the wing,—rivalling the eagle in its flight, rushing along the narrow embankment or the lofty viaduct, or above the precipice with the sea raging at its base,—the passengers are reclining on their easy couch, reading or writing, thinking, or sleeping, or dreaming, as if they were under their own roof-tree, and safer in many respects than there, for the highwayman cannot rob them by day, nor the burglar alarm them at night.<sup>128</sup>

The railway passenger made no physical effort to generate the train's locomotion, and so underwent no transformation. Hence, in so far as the railway was without friction, the passenger's body would not pay for its passage, but remain entirely unchanged even as it moved.<sup>129</sup>



**Figure 4.10 – Constructing the Newtonian road: ‘A Railway Cutting,’ *Magazine of Art Illustrated*, 1878]**

Nonetheless, someone did pay; work and (hence) transformation was still required. Behind the passengers' backs, so to speak, an entire network was being mobilized for the purpose of constructing and maintaining the Newtonian road (see figure 4.10). A good example of this was the construction of the Settle and Carlisle Line in the 1860s and 70s. In 1866, the Midland Railway Company received permission to build a line from Settle to Carlisle, through the Yorkshire Dales and the North Pennines; an endeavour which would allow them to connect London to Scotland without interference from rival companies.<sup>130</sup> Work began in 1869, and quickly turned out to

<sup>128</sup> Anon., “Railway Accidents,” *The North British Review* 34 (61 1860): 399–427.

<sup>129</sup> We will examine this premise more closely in the next section of the chapter. It should suffice here to note that a perfect Newtonian road would be entirely abstract, which the railway was not.

<sup>130</sup> The major historical work on the Midland Railway is Frederick S. Williams, *The Midland Railway: Its Rise and Progress - A Narrative of Modern Enterprise* (London: Strahan & Co., 1876). Williams, better known for his *Our Iron Roads* travelled across the line itself as soon as it was finished, interviewing its workers and contractors.

be more difficult than expected. The line's 72 miles ended up costing £47,500 each—adding up to a staggering £2.3 million—and when it opened in 1876 it had taken six-and-a-half years to complete its construction – two-and-a-half longer than scheduled.

The construction of the Settle and Carlisle line proved incredibly demanding. From Settle, the first 16 miles of tracks climbed more than 700 feet at a gradient of 1:100 – the so-called 'Long Drag.' This stretch required unprecedented amounts of 'levelling of hills' and 'lifting of plains.' At points the line had to be raised more than 100 feet above the ground, in other stretches it had to pass through mountains ten times that height. The unexpected capriciousness of the strata through which the more than 6,000 hired navvies would have to dig,<sup>131</sup> together with bad weather, floods, snow drifts, and frozen ground, soon turned proposed cuts into deep and long tunnels, and planned embankments into giant viaducts. Furthermore, many of the latter often had to be lengthened or heightened in order for the feet to be sunk deep enough for the necessary stability. Some of the viaduct piers were sunk 55 feet through peat-washing and clay before hitting solid rock.<sup>132</sup> The greatest viaduct on the line, the Ribbleshead Viaduct, was carried by 24 arches, of which every sixth was made extra strong, 'so should ever fall, only five arches would follow.'<sup>133</sup> Similarly, the famous Blea Moor tunnel—a staggering 2,629 yards long—required the unprecedented construction of a curve inside a tunnel, which posed new challenges for engineers and diggers alike. In order for more men to work on the tunnel simultaneously, seven shafts were sunk on the line of the tunnel, at equal distance so that they would eventually meet at approximately the same time. First, however, winding engines for lifting workmen in and spoils out had to be dragged to the top and installed. These engines, weighing approximately 6 tons each, were either pulled up a makeshift road by the help of windlasses, or manually, on a 'four-wheeled timber wagon sort of thing,' as one work leader put it.<sup>134</sup> After the diggers and dynamiters had connected their 'headings,' the

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Other works on the line include W.R. Mitchell, *The Long Drag: A Story of Men Under Stress During the Construction of the Settle-Carlisle Line* (Settle: W.R. Mitchell, 1962); Frederick W. Houghton and W. Hubert Foster, *The Story of the Settle-Carlisle Line*, 2nd ed. (Huddersfield: The Advertiser Press Limited, 1965); O.S. Nock, *The Settle and Carlisle Railway: A Personal Story of Britain's Most Spectacular Main Line* (Sparkford: Patrick Stephens Limited, 1992); David J. Williams, *The Settle and Carlisle Line: A Nostalgic Trip Along the Whole Route From Hellifield to Carlisle*, The Nostalgia Collection (Kettering: Past & Present Publishing Ltd, 2010).

<sup>131</sup> The population of the parishes of North Ribblesdale increased by 3,000 when the navvies arrived, and due to lack of space in the existing villages, the navvies erected their own makeshift dwellings or shanty towns. Mitchell, *The Long Drag*.

<sup>132</sup> *Ibid.*

<sup>133</sup> Williams, *The Midland Railway*, 497–8.

<sup>134</sup> *Ibid.*, 495.

tunnel had to be secured with masonry, and three of the shafts were preserved for ventilation. In the end, the line between Settle and Carlisle required 22 viaducts and 14 tunnels of this sort. It was indeed—and remains today—a comparatively straight line running through series of cuttings, embankments, tunnels, and viaducts, its journey so frictionless that it has later become more known for its majestic scenery and panoramic views than for the amount of work required to create it.



**Figure 4.11 – Tactics of travelling on a workman's train, *Illustrated London News*, 1883**

Mobilizing machines and workers was crucial, but not enough: the passengers themselves played a key part. Passengers could only function as immutable mobiles if they behaved like inanimate objects; that is, if they allowed themselves to be moved without themselves introducing interruptions or frictions. Indeed, John Ruskin famously compared railway passengers to ‘living parcels,’ inert objects being sent to and fro.<sup>135</sup> In 1862, the *Railway Traveller's Handy Book* made an equally striking comparison.

A Person in a railway carriage may be likened to a prisoner of state, who is permitted to indulge in any relaxation and amusement to while away the time, but is denied that essential ingredient to human happiness, personal liberty. He is, in fact, confined to a certain space for so many hours, and cannot well remove from his allotted endurance without annoying his fellow passengers.<sup>136</sup>

Indeed, the author felt the need to remind travellers that their assigned place was within the confines of the carriage.

<sup>135</sup> John Ruskin, *The Seven Lamps of Architecture*, 6th ed. (Kent: George Allen, 1889), 121.

<sup>136</sup> Anon., *The Railway Travellers' Handy-Book*, 75.

Some persons, when travelling by railway, have a knack of continually thrusting their heads out of the window. Nothing can be more dangerous than this, and numerous are the accidents that have resulted in consequence. The proper place for the head is inside, not outside the carriage, and so long as it is kept there, the chances are that it will remain whole.<sup>137</sup>

These were obviously meant as precautionary warnings to the passenger, in order to avoid devastating accidents (for reasons of health and safety as much as financial concerns); but one might also see them as indications that the treatment of the passenger as an immutable mobile partly depended on his or her deliberate cooperation. The *Handy-Book*, for example, warned travellers that ‘the eye is apt to be greatly deceived in ... the relative pace at which the train travels’.

Few persons are experienced in the rate of railway travelling, and when the train is moving at the rate of twenty miles an hour, it appears not to be travelling faster than five or six miles an hour, and with this miscalculation it is easy to understand that a false step may be made, and the body thrown off its equilibrium.<sup>138</sup>

Travellers had to learn to decipher a timetable (in order to plan the journey before it commenced), and to calculate his or her future arrival in another location (and so, for instance, leave home so as to be at the station five minutes before departure). During transit, the passenger’s status as immutable mobile was further dependent on his or her remaining strictly within the confines of the carriage. Here, one might engage in various ‘tactics of travelling,’ particular ways of passing time that would not interfere with one’s intended role and function, such as ‘conversation [obviously avoiding certain contentious topics], reading, card-playing, chess-playing, smoking, musing, and sleeping.’ (see figure 4.11).<sup>139</sup> They had to be convinced that it was a bad idea to climb on to the roof or jump off a moving train, and that if one stuck one’s head out the window, one might quite literally lose it. Passengers had to acquire the skills needed to negotiate crowded platforms without ‘causing a stir,’ and be made to understand when and where it was acceptable to leave their luggage – in short, they had to be taught how to move in synchrony with the gigantic ‘collective choreography’ of the entire railway network, whose principal purpose it was to make

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<sup>137</sup> Ibid., 93.

<sup>138</sup> Ibid., 97.

<sup>139</sup> Ibid., 75. The term ‘tactics of travelling’ belongs to Michel de Certeau. Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley; Los Angeles; London: University of California Press, 1984).

their passage perfectly smooth and frictionless.<sup>140</sup> The successful mediation of secular time could not be accomplished without some level of cooperation on the part of the passengers.

But a railway journey began long before a passenger boarded a train: diligent passengers at least planned and prepared for their journey, internalizing where they had to be at particular times – to board a train, to make a connection, to meet travelling companions. A crucial technology in this respect was the public railway timetable.<sup>141</sup> The portable timetables distributed in increasing numbers throughout the century made possible the coordination of one's body to the times of the railway, even when one was not in any other way physically embedded in the network itself (as one would be if standing in a station reading departure times off a wall poster, for instance). In 1862, *The Railway Traveller's Handy-book* 'assum[ed that] the intending traveller [would] be sitting in his room a day or two previous to his departure, turning his future movements over in his mind, [and] the first things which will commend themselves to his attention are those useful publications known as RAILWAY GUIDES.'<sup>142</sup> According to the *Handy-book*, a new class of people had recently emerged—namely '[c]ommercial travellers, and others who pass a great deal of their time on railways'—'whose movements in life may be said to be regulated by the time-table.'<sup>143</sup> In 1885, Rev. Edmund Venables, writing to *The Times*, felt that *Bradshaw's Railway Guide* had become nothing less than a 'necessity of life in these days of constant locomotion.'<sup>144</sup> Indeed, figured as part of the extensive railway network, timetables were themselves seen as a defining characteristic of the present age: as *The Times* declared in 1874, it was 'an age of timetables.'<sup>145</sup>

From the very beginning of the network expansion, every railway company transporting passengers produced posters to be pasted on station walls, declaring an approximate time of departure.<sup>146</sup> The first attempts to gather and coordinate the timetables of several railway companies in a single pocket-size format, however, were

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<sup>140</sup> Orvar Löfgren, "Motion and Emotion: Learning To Be a Railway Traveller," *Mobilities* 3, no. 3 (2008): 331–351.

<sup>141</sup> Watts, "The Art and Craft of Train Travel."

<sup>142</sup> Anon., *The Railway Travellers' Handy-Book*, 10.

<sup>143</sup> *Ibid.*, 3.

<sup>144</sup> Edmund Venables, "To the Editor of the Times (Bradshaw's Railway Guide)," *The Times*, no. 31525 (August 14, 1885): 10.

<sup>145</sup> Anon., "Editorial," *The Times*, no. 28094 (August 29, 1874): 9.

<sup>146</sup> The term 'timetable' was first used in 1838 by the London and Birmingham Railway Company. Jack Simmons, *The Victorian Railway* (London: Thames & Hudson Ltd, 1991), 183.

made during the 1830s, most famously by George Bradshaw,<sup>147</sup> who began publishing his *Monthly Guide* in December 1841.<sup>148</sup> Whereas earlier ‘companions’ had been printed in a way that made it possible for any user to correct what was printed according to changes made by the respective companies, the *Monthly* was a serial publication, promising to be constantly updated with the latest (monthly) changes.<sup>149</sup> The publication and distribution of periodical pocket-size timetables—in an escalating number of local, regional, and national versions—increased throughout the century. In a single year in the 1880s, one railway company (out of more than a hundred then in operation) printed 35,000 copies of its summer timetable.<sup>150</sup> This did not include winter issues (33,000), posters for station walls, so-called working timetables aimed at railway employees, or those produced by other transport providers or private publishers, which included the same information. In addition to such regular timetables, there were also special timetables for excursion trains, some more than a thousand pages long.

Railway timetables took different forms—all of which had precursors in other transport professions<sup>151</sup>—but in the more comprehensive publications, two basic representational forms were common. The first was characterized by a chronological numbering of selected points on a time continuum (marked as hours, minutes or seconds) along one axis, and along the other, a series of stations marked according to their successive order along the particular line in question (see figure 4.12).<sup>152</sup> This was the form originally adopted by Bradshaw, and which is perhaps most familiar today.

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<sup>147</sup> Bradshaw has some contestants for the title of ‘Originator of Timetables,’ but the title probably belongs to him. See E.H. Dring, “Early Railway Time Tables,” *The Library* 2, no. 3 (1921): 137–173.

<sup>148</sup> The earliest remaining issue is the third one, dated February 1842. See *Ibid.*, 165–6.

<sup>149</sup> See for instance *Bradshaw’s Monthly Railway and Steam Navigation Guide, For Great Britain and Ireland, Etc.* (London: Bradshaw’s Railway Information Office, 1843).

<sup>150</sup> Frederick Smeeton Williams, *Our Iron Roads: Their History, Construction and Administration*, 2nd ed. (London: Routledge, 1968), 386.

<sup>151</sup> Mike Esbester, “Nineteenth-Century Timetables and the History of Reading,” *Book History* 12 (2009): 156–185.

<sup>152</sup> *Bradshaw’s (Monthly) General Railway and Steam Navigation Guide, for Great Britain and Ireland, The Official Time and Fare Tables of Every Railway Now Open Throughout the United Kingdom Etc.*, 225 (London et al.: W.J. Adams, et al., 1852).



LONDON, READING, OXFORD, CHELTENHAM, BATH, BRISTOL, and EXETER to FLYMOUTH.																								
Great Western, Bristol and Exeter, and South Devon.												[Secs., C. A. Saunders, London, and J. B. Badham, Bristol.]												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Paddington Station.	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2	1 & 2
London.....dep.	8 50	7 40	8 30	9 45	10 15	10 45	11 30	12 30	1 40	2 45	3 30	4 0	4 50	5 30	7 10	8 30	9 30	10 30	11 30	12 30	1 30	2 30	3 30	4 30
Banwell.....	7 12	8 41	10 56	11 1	11 56	12 56	1 51	2 46	3 41	4 36	5 31	6 26	7 21	8 16	9 11	10 6	11 1	12 6	1 11	2 11	3 11	4 11	5 11	6 11
Southall.....	7 25	8 54	11 6	11 15	12 15	1 10	2 5	3 5	4 5	5 5	6 5	7 5	8 5	9 5	10 5	11 5	12 5	1 5	2 5	3 5	4 5	5 5	6 5	7 5
West Drayton.....	7 38	9 7	11 22	11 31	12 31	1 26	3 1	4 1	5 1	6 1	7 1	8 1	9 1	10 1	11 1	12 1	1 1	2 1	3 1	4 1	5 1	6 1	7 1	8 1
Langley.....	7 51	9 20	11 25	11 34	12 34	1 29	3 4	4 4	5 4	6 4	7 4	8 4	9 4	10 4	11 4	12 4	1 4	2 4	3 4	4 4	5 4	6 4	7 4	8 4
Slough.....	8 10	9 39	11 44	11 53	12 53	1 48	3 3	4 3	5 3	6 3	7 3	8 3	9 3	10 3	11 3	12 3	1 3	2 3	3 3	4 3	5 3	6 3	7 3	8 3
21 Windsor.....dep.	8 0	9 0	10 0	10 40	11 30	12 30	1 25	3 10	4 10	5 10	6 10	7 10	8 10	9 10	10 10	11 10	12 10	1 10	2 10	3 10	4 10	5 10	6 10	7 10
Maidenhead.....arr.	8 20	9 20	10 20	11 0	11 35	12 35	1 30	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	1 15	2 15	3 15	4 15	5 15	6 15	7 15
23 Reading.....arr.	8 28	9 28	10 28	11 8	11 40	12 40	1 35	3 20	4 20	5 20	6 20	7 20	8 20	9 20	10 20	11 20	12 20	1 20	2 20	3 20	4 20	5 20	6 20	7 20
302 Twyford.....	8 57	9 57	10 57	11 25	12 25	1 25	3 10	4 10	5 10	6 10	7 10	8 10	9 10	10 10	11 10	12 10	1 10	2 10	3 10	4 10	5 10	6 10	7 10	8 10
352 Reading.....arr.	9 16	10 16	11 16	11 50	12 50	1 50	3 35	4 35	5 35	6 35	7 35	8 35	9 35	10 35	11 35	12 35	1 35	2 35	3 35	4 35	5 35	6 35	7 35	8 35
353 Reading.....dep.	11 45	9 5	11 46	12 46	1 46	3 31	4 31	5 31	6 31	7 31	8 31	9 31	10 31	11 31	12 31	1 31	2 31	3 31	4 31	5 31	6 31	7 31	8 31	9 31
454 Reading.....arr.	11 58	9 18	11 59	12 59	1 59	3 44	4 44	5 44	6 44	7 44	8 44	9 44	10 44	11 44	12 44	1 44	2 44	3 44	4 44	5 44	6 44	7 44	8 44	9 44
512 Basingstoke.....arr.	12 16	9 36	12 17	13 17	2 17	4 2	5 2	6 2	7 2	8 2	9 2	10 2	11 2	12 2	1 2	2 2	3 2	4 2	5 2	6 2	7 2	8 2	9 2	10 2
354 Reading.....dep.	12 0	9 0	12 0	13 0	2 0	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	1 15	2 15	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15
41 Theatre.....	12 18	9 18	12 18	13 18	2 18	4 33	5 33	6 33	7 33	8 33	9 33	10 33	11 33	12 33	1 33	2 33	3 33	4 33	5 33	6 33	7 33	8 33	9 33	10 33
448 Aldermaston.....	12 21	9 21	12 21	13 21	2 21	4 36	5 36	6 36	7 36	8 36	9 36	10 36	11 36	12 36	1 36	2 36	3 36	4 36	5 36	6 36	7 36	8 36	9 36	10 36
465 Woolhampton.....	12 27	9 27	12 27	13 27	2 27	4 42	5 42	6 42	7 42	8 42	9 42	10 42	11 42	12 42	1 42	2 42	3 42	4 42	5 42	6 42	7 42	8 42	9 42	10 42
491 Thatcham.....	12 35	9 35	12 35	13 35	2 35	4 50	5 50	6 50	7 50	8 50	9 50	10 50	11 50	12 50	1 50	2 50	3 50	4 50	5 50	6 50	7 50	8 50	9 50	10 50
538 Newbury.....	12 45	9 45	12 45	13 45	2 45	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0
552 Kintbury.....	12 55	9 55	12 55	13 55	2 55	5 10	6 10	7 10	8 10	9 10	10 10	11 10	12 10	1 10	2 10	3 10	4 10	5 10	6 10	7 10	8 10	9 10	10 10	11 10
612 Hungerford.....arr.	1 0	10 0	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0
414 Pangbourne.....	9 26	9 0	9 26	10 26	1 26	3 41	4 41	5 41	6 41	7 41	8 41	9 41	10 41	11 41	12 41	1 41	2 41	3 41	4 41	5 41	6 41	7 41	8 41	9 41
441 Goring.....	9 47	9 14	9 47	10 47	1 47	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0
474 Wallingford Road.....	10 0	9 14	10 0	11 0	12 0	1 0	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	1 15	2 15	3 15	4 15	5 15	6 15	7 15	8 15
53 Ditchley.....	10 20	9 25	10 20	11 20	12 20	1 20	3 35	4 35	5 35	6 35	7 35	8 35	9 35	10 35	11 35	12 35	1 35	2 35	3 35	4 35	5 35	6 35	7 35	8 35
53 Ditchley.....	10 40	9 45	10 40	11 40	12 40	1 40	3 55	4 55	5 55	6 55	7 55	8 55	9 55	10 55	11 55	12 55	1 55	2 55	3 55	4 55	5 55	6 55	7 55	8 55
56 Abingdon Road.....	10 55	9 55	10 55	11 55	12 55	1 55	4 10	5 10	6 10	7 10	8 10	9 10	10 10	11 10	12 10	1 10	2 10	3 10	4 10	5 10	6 10	7 10	8 10	9 10
63 Oxford.....	11 0	10 0	11 0	12 0	1 0	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	1 15	2 15	3 15	4 15	5 15	6 15	7 15	8 15	9 15
72 Woodstock Road.....	11 15	10 15	11 15	12 15	1 15	3 30	4 30	5 30	6 30	7 30	8 30	9 30	10 30	11 30	12 30	1 30	2 30	3 30	4 30	5 30	6 30	7 30	8 30	9 30
78 Heyford.....	11 30	10 30	11 30	12 30	1 30	3 45	4 45	5 45	6 45	7 45	8 45	9 45	10 45	11 45	12 45	1 45	2 45	3 45	4 45	5 45	6 45	7 45	8 45	9 45
81 Aylesbury.....	11 45	10 45	11 45	12 45	1 45	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0
87 Banbury.....arr.	1 30	10 55	1 30	2 30	3 30	4 30	5 30	6 30	7 30	8 30	9 30	10 30	11 30	12 30	1 30	2 30	3 30	4 30	5 30	6 30	7 30	8 30	9 30	10 30
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	10 6
164 Stevenage.....	11 51	10 51	11 51	12 51	1 51	4 6	5 6	6 6	7 6	8 6	9 6	10 6	11 6	12 6	1 6	2 6	3 6	4 6	5 6	6 6	7 6	8 6	9 6	

Figure 4.13 – *The Birmingham ABC or Alphabetical Railway, Omnibus, & Post-Office Time Table and General Advertiser, p. 4* (Birmingham: E.A.W. Taylor, 1853).

Nonetheless, secular time was implied in both of these tabular forms, functioning as the premise making coordination possible and temporal distance calculable. Strictly speaking, the printed numbers along the axis were hence not really ‘times,’ but indications of points on an abstract and homogeneous time continuum. Indeed, most of these points were not indicated, but merely implied by the absent ‘empty’ intervals between two printed numbers (e.g. |17|21|37|). Only on the implicit premise of homogeneity—that is, the expectation that the intervals between each point, whether indicated or not, would remain regular and of equal length—could the passenger calculate the time of travelling in advance. Comprehensive timetables, such as those published by Bradshaw, sought to comprise all companies’ various timetables, and so represent all possible journeys within a single, all-inclusive grid; put another way, a timetable sought to represent all the available options at any given moment of absolute time. The various places and times of the whole national territory (or the entire surface of the earth, if the journey would cross national borders) were represented to the reader’s ‘single glance,’ as existing within a singular temporal grid, even though in its material manifestation this grid might be simplified and literally folded back on itself so as to fit conveniently into the reader’s coat pocket.<sup>155</sup>

<sup>155</sup> This also meant that the timetable, in seeking to provide information about all potential journeys, necessarily included an abundance of information no single reader needed or was indeed supposed to process. Its form therefore demanded a particular mode of reading. The individual passenger’s needed pieces of information were made available through him or her acquiring and applying a set of particular skills, for instance reading vertically as well as horizontally, leafing back and forth between specific pages connected only by certain signs, or decoding different kinds of font or symbols. In general, timetables were, quite understandably, considered incredibly

## MUTABLE MOBILES

Nonetheless, whilst timetables on the one hand sought to represent a universal grid, they also acknowledged their own failure to do so. Before the adoption of GMT on railways, company timetables often specified which particular local time they were based on, whether clocks at each station were set to the local time or London time.<sup>156</sup> Even towards the end of the century, long after the instigation of telegraphic time distribution, *Bradshaw's Railway Guide* still displayed several particular local times, and many passengers continued to adjust their clocks as they moved east or west of Greenwich.<sup>157</sup> As a result, the relative value of Bradshaw's timetables was a constant topic of public debate. In 1885, one reader of *The Times* complained that the universal applicability of Bradshaw's guide was exaggerated. During a journey from Canterbury to Faversham, he 'quite accidentally ... discovered that Bradshaw's information [on the details of his journey] was worthless, and one of the ticket-collectors, to whom [he] applied, informed [him] that the directors did not acknowledge Bradshaw's Guide as official, and consequently were not bound by it.'<sup>158</sup> If this was the case on all the lines, the author continued, Bradshaw's guide was 'practically useless.'

Equally, there was the simple but important fact that *Bradshaw's* was a *periodical* publication, and as such its very form implied and presupposed constant change and movement in the very system it sought to represent as complete and totalized.<sup>159</sup> From the very moment that a new issue was printed, there was the acknowledged possibility—and soon even expectancy—that changes or exceptions were already being made, changes that would alter the course of the system as a whole yet would not be registered until the publication of next month's issue. Throughout the interval of the month, then, the system itself was in motion, undergoing alterations which the printed representation was unable to account for: stations appearing or disappearing, new routes emerging, old routes being re-scheduled or cancelled. The periodical re-printing of timetables, 'with such alterations as have been made in the interval,' as

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difficult to navigate. Nonetheless, as Mike Esbester points out, it was not unheard of to read timetables simply for leisure, in order to spur the imagination. See Esbester, "Nineteenth-Century Timetables and the History of Reading," 168.

<sup>156</sup> Mike Esbester, "Designing Time: The Design and Use of Nineteenth-Century Transport Timetables," *Journal of Design History* 22, no. 2 (2009): 98–9.

<sup>157</sup> Gay, "Clock Synchrony," 121.

<sup>158</sup> F.C. Burnand, "The Value of Bradshaw's Guide," *The Times*, no. 31522 (August 11, 1885): 4.

<sup>159</sup> Chapter 5 will deal specifically with the temporal logic of periodicity.

Bradshaw put it in his very first editions of his *Companion*, was an acknowledgement of the futility of attempting to represent a stable chronological system which itself needed continuous updating. The ‘purity’ of secular time was thus belied in the logic of periodicity; it was everywhere punctured and shot-through with changing qualities and unpredictable developments. In this sense, *The Times*’ complaint that timetables could be a ‘monthly mass of fiction’ was more correct than the writer perhaps knew how to appreciate.<sup>160</sup> The insistence on predictability, coordination, and abstract immutability was indeed accompanied by an acute awareness of its limited possibility. The timetable was itself an inherent part of a constantly changing network. The abstract secular time implicit in timetables—as well as in the practices of coordination, calculation, and measurement—was always confused with historical time’s rushing development, their intermingling spurring ever-new paradoxes; as we shall see, an aporetic split—a dialectical ‘wound’—between the two contradictory times lay at the root of a numbers of ‘railway traumas’ both individual and structural. As we have seen, a single authoritative national timetable was not only considered convenient – it was a means to providing safety for travellers. Passenger (and increasingly staff) health and safety had always been central to the question of regulation and coordination, but the increase in accidents in the latter half of the century made the issue a more pressing one. From the 1870s, inter-company competition turned from the question of territorial expansion and monopolization to one of offering passengers greater measures of comfort and speed.<sup>161</sup> Carriages became more inviting, increasingly provided with cushions to absorb some of the jolts during transit. From the 1870s toilets started appearing, which allowed shorter stops at intermediate stations. Electric lighting was installed in some carriages, though this did not become standard until after 1918. But more importantly, companies whose tracks covered the same distance began competing over who could make the journey in the shortest amount of time, and this concern soon went before comfort and safety alike. As a result of the changing mode of inter-company competition, the decades after 1870 saw a drastic increase in fatal accidents on public railways. Ironically, the earliest noted death directly caused by a public railway happened at the very opening of the first one of the sort: when attending the opening of the Liverpool and

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<sup>160</sup> Quoted in Esbester, “Nineteenth-Century Timetables and the History of Reading,” 164.

<sup>161</sup> Wolmar, *Fire and Steam*, 164–80.

Manchester line in 1830, MP William Huskinson had his leg crushed under Stephenson's locomotive, and later died of the injuries.<sup>162</sup> Over the next five decades the rising number of annual deaths on the railways kept steady pace with the general expansion of the network. The 1870s saw 394 passengers lose their lives, making it the deadliest decade in British railway history.<sup>163</sup> By this time, trains could reach the speed of 80 mph, double what was possible a decade earlier. Notwithstanding these developments, railway companies were as reluctant to provide proper braking systems as the government was to intervene in the 'free market.' The Royal Commission held on railway accidents in 1874 spent three years collecting a mass of evidence, but accomplished near to nothing. In the 1880s a series of spectacular accidents culminated with the 1889 Armagh disaster, in which 80 people were killed and 250 injured (most of them Sunday school children). The accident had happened after a set of carriages lacking automatic brakes became detached from the train, rolled backwards, and smashed into another train following the first one up the hill. Only after this were automatic brakes and block working made compulsory by law.<sup>164</sup>

Railway accidents constituted particularly dramatic sites for the new encounters between human bodies and machines, and their violent effects were intimately associated with questions of time and its many paradoxes. In the famous example of Charles Dickens, who survived an accident near Staplehurst in 1865, the violent interruption of the train's regular motion could result in a specific kind of neurotic trauma (see figure 4.14). The serious and sometimes long-lingering effects of what became known as 'railway shock' spurred a number of theories as to its particular nature and possible treatment, both in physical medicine and in the emerging disciplines of psychiatry and psychology.<sup>165</sup> Psychological trauma—that is, the unbidden return and repetition of past emotions and sensations—came to be considered a 'disease of time:' a failure to recognize the past as being just that,

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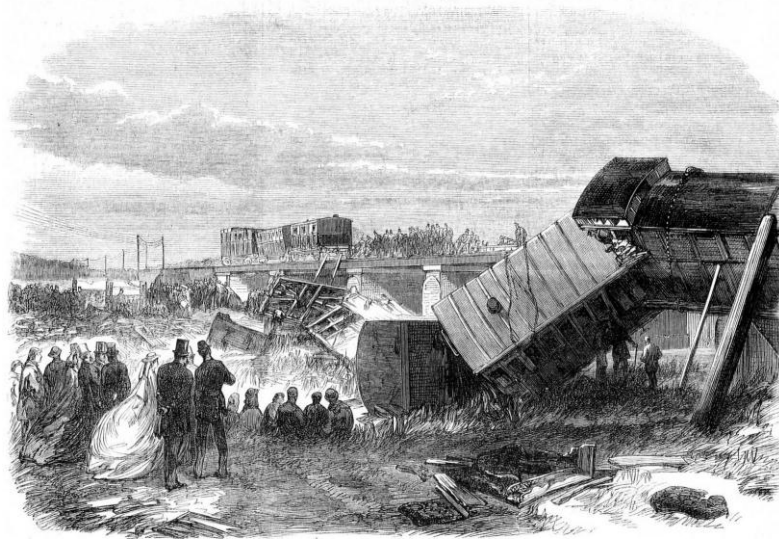
<sup>162</sup> Bawden and Weller, "Social and Technological Origins," 781. For an account of the accident, see L.T.C. Rolt, *Red for Danger: The Classic History of British Railway Disasters* (Stroud: Sutton Publishing Limited, 1998), 187–193.

<sup>163</sup> Wolmar, *Fire and Steam*, 329 n6.

<sup>164</sup> *Ibid.*, 166–71.

<sup>165</sup> For some of these, see Thomas Keller, "Railway Spine Revisited: Traumatic Neurosis or Neurotrauma?," *The Journal of the History of Medicine and Allied Sciences* 50, no. 4 (1995): 507–524; Danuta Mendelson, "English Medical Experts and the Claims for Shock Occasioned by Railway Collisions in the 1860's. Issues of Law, Ethics, and Medicine," *International Journal of Law and Psychiatry* 25, no. 4 (2002): 303–329.

mistaking it for (an element of) the present.<sup>166</sup> Symptoms such as memory loss or sudden ‘flashbacks’ were taken to suggest that something was amiss in the sufferer’s experience of time’s passage: the past interrupted the present and hence hampered the future. To return to the example of Dickens: railway trauma made it seem as if certain features of the present Charles Dickens rightly belonged to the past, and hence that their presence was a paradoxical and contradictory intrusion of the past upon the present.



**Figure 4.14 – Staplehurst accident, *Illustrated London News*, 1865**

Of course, many celebrated the achievements of the railway despite its dangers. As one pamphleteer declared in 1853,

... we seem to travel, in a remarkable and special manner, at all times, but more particularly at the extremes of speed, under an Almighty direction for the benefit of man. It is true we are reminded of the mechanism which aids, and in some sense, still, under the same direction, controls; and that the fracture of a rail, or the tyer of a wheel, or an axle would, and occasionally (though not within my own experience) does disarrange the machinery, and throw a train off the line; and so we must acknowledge ourselves dependent as a means on mechanical contrivance; but when we reflect that this occurs so seldom, and so many tens of thousands of miles are traversed without damage or hindrance, the regularity and safety of railway travelling seems next to, nay, quite miraculous.<sup>167</sup>

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<sup>166</sup> Jill L. Matus, “Trauma, Memory, and Railway Disaster: The Dickensian Connection,” *Victorian Studies* 43, no. 3 (2001): 432. See also Jill L. Matus, *Shock, Memory, and the Unconscious in Victorian Fiction*, Cambridge Studies in Nineteenth-Century Literature and Culture 69 (Cambridge: Cambridge University Press, 2009).

<sup>167</sup> Peters, *Railway Dangers*, 45.

However, even on a regular basis—quite apart from major and obviously traumatic accidents—the railways seemed to disrupt and confuse the uniform flow of time as much as establishing it. Although the passenger was an important site for the establishment of a conception of secular time—namely in the network’s collective effort to secure the frictionless flight of its immutable mobiles—the traveller’s body equally became a site of temporal confusion and paradox. In an 1862 special issue on railway travelling and health, the medical journal *The Lancet* warned its readers that while ‘perfect regularity in the time of the departure from and arrival at each station by the trains ... would appear to be a material element of safety in railway travelling,’ it was nevertheless the case that ‘[a]bsolute punctuality in arrival of trains is the exception, not the rule; and the anxiety and urgent hurry on arrival thus entailed on men of business especially tend to increase any ill effects that the long and rough railway journey may have produced.’<sup>168</sup> The new human-technological encounters facilitated by the railway network caused a range of unprecedented and sometimes enigmatic conditions at once physical and psychological—such as in the above example of Charles Dickens—demanding entirely new definitions and treatments, which again spurred new genres of both medical and fictional literature dealing with the topic of ‘railway trauma.’<sup>169</sup> The practice of railway travelling facilitated new types of encounters between human bodies; strangers were locked (commonly, at the time, from the outside) into the enclosed space of the railway compartment. The sense of proximity to strangers forced upon passengers packed into claustrophobic compartments not only spurred endless discussions of proper inter-class conduct, but also inspired psychological theories;<sup>170</sup> the awkwardness and excitement associated with being thrown into the proximity of strangers and forced to spend hours together in the aphrodisiacal ‘rocking and rolling’ of the carriage spurred widespread anxieties of (sexual) violence – soon a common topic in pornographic short stories as well as morally indignant articles in major newspapers.<sup>171</sup> Indeed, the habit of reading while travelling developed partly as a response to such ‘social’ tensions. Reading, it was

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<sup>168</sup> Anon., *The Influence of Railway Travelling on Health - From “The Lancet”* (London: Robert Hardwicke, 1862), 141.

<sup>169</sup> Keller, “Railway Spine Revisited”; Nicholas Daly, “Railway Novels: Sensation Fiction and the Modernization of the Senses,” *Journal of English Literature History* 66, no. 2 (1999): 461–487.

<sup>170</sup> Robert Dingley, “Closely Observed Trains: The Railway Compartment as a Locus of Desire in Victorian Culture,” *Cahiers Victorians Et Edouardiens* 53 (2001): 111–139; Peter Bailey, “Adventures in Space: Victorian Railway Erotics; or Taking Alienation for a Ride,” *Journal of Victorian Culture* 9, no. 1 (2004): 1–21; Nicholas Daly, “Blood on the Tracks: Sensation Drama, the Railway, and the Dark Face of Modernity,” *Victorian Studies* 42, no. 1 (1999): 47–76; Daly, “Railway Novels: Sensation Fiction and the Modernization of the Senses.”

<sup>171</sup> Dingley, “Closely Observed Trains: The Railway Compartment as a Locus of Desire in Victorian Culture.”

suggested, might serve to divert the reader's attention from the inertial timeframe he or she shared with the other passengers in the railway carriage, as well as provide a mental escape from the constant awareness of potential interruption. Recently scholars have associated this with the emergence of a 'subjective' time, one which the reader might experience as moving at a different speed altogether.<sup>172</sup> These were only some of the areas that seemed to belie the uniformity of railway time.

Indeed, the anxieties and temporal disruptions associated with railway travelling were cast as defining characteristics of the new 'railway age.' As one historian notes, the Victorian railways brought the feared machine accident out from the factories and into the 'landscapes of towns, villages, streets, fields and farms in which everybody lived.'<sup>173</sup> Indeed, some scholars have taken the particular nervousness surrounding railway travel—that is, the constant awareness of the possibility of violent interruptions made possible by the 'alienating' machine ensemble—to characterize sensibilities peculiar to modernity.<sup>174</sup> This was also commented upon at the time. After having tried the new railway between his own city of Liverpool and Manchester in 1829, merchant and politician Thomas Creevy expressed it this way: while railway travel 'is really flying...it is impossible to divest yourself of the notion of instant death to all upon the least accident happening. It gave me a headache which has not left me yet.'<sup>175</sup> Travelling by train was quite simply not as smooth as the optimistic descriptions of 'flying' suggested. Like Mr. Dombey in Dickens' *Dombey and Son*, many travellers 'found no pleasure or relief in the journey:'

[A]way with a shriek, and a roar, and a rattle, through the fields, through the woods, through the corn, through the hay, through the chalk, through the mould, through the clay, through the rock, among objects close at hand and almost in the grasp, ever flying from the traveller, and a deceitful distance ever moving slowly with him: like as in the track of the remorseless monster, Death...Louder and louder yet, it shrieks and cries as

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<sup>172</sup> Similar themes have been explored in recent ethnographic studies. See e.g. Watts, "The Art and Craft of Train Travel"; Murray Baumgarten, "Railway/Reading/Time: *Dombey and Son* and the Industrial World," *Dickens Studies Annual* 19 (1990): 65–89.

<sup>173</sup> Ralph Harrington, "Railway Safety and Railway Slaughter: Railway Accidents, Government and Public in Victorian Britain," *Journal of Victorian Culture* 8, no. 2 (2003): 187–207.

<sup>174</sup> Daly, "Railway Novels: Sensation Fiction and the Modernization of the Senses." See also the essays in Matthew Beaumont and Michael Freeman, eds., *The Railway and Modernity: Time, Space, and the Machine Ensemble* (Bern: Peter Lang, 2007).

<sup>175</sup> Thomas Creevy, *The Creevy Papers*, ed. John Gore, Rev. ed. (London: B.T. Batsford Ltd, 1963), 256.



it comes tearing on resistless to the goal: and now its way, still like the way of Death, is strewn with ashes thickly.<sup>176</sup>

The nervousness and anxiety associated with the machine accident were the co-travellers of any Victorian passenger throughout the century. As late as in 1927, G.K. Chesterton stated that ‘passengers as a whole ... wish to travel swiftly, not because swift travelling is enjoyable, but because it is not enjoyable.’<sup>177</sup>

In short, railway travelling could be downright uncomfortable, adding rather than subtracting friction from the passenger’s movement. The short-bodied four-wheel carriages that remained in use for most of the nineteenth century could ‘work up an uncomfortable waggle at any speed’ on the short lengths of rail that were common. Though twelve-wheel bogie carriages that distributed the weight more evenly were constructed as early as 1876, and eight-wheel carriages came into use some places in the 1880s, it was not until 1900 that such measures were applied on most main-line trains.<sup>178</sup> According to the editors of the *Lancet*, the mere strain of regular railway travelling could be as bad for one’s health as the feared accidents. ‘It is no longer the fear of accidents so much,’ declared the said journal in the early 1860s, ‘as a vague dread of certain undefined consequences to health resulting from influences peculiarly produced by this mode of travelling...’<sup>179</sup> Even in well-cushioned carriages, the ‘almost incessant repetition of mere vibrations,’<sup>180</sup> together with chilling draughts,<sup>181</sup> the anxiety of being ‘in constant hurry,’<sup>182</sup> the loud rattling sound of wheels on tracks,<sup>183</sup>—in short, the human body’s absorption of the constant jolts and starts of the moving railway carriage—might cause nausea, headaches, fatigue, strained muscles and weakened bones, in particular in those who were already unhealthy.<sup>184</sup>

Furthermore, declared the medical experts, the ‘constantly present ... possibility of collision’ often caused a general ‘condition of uneasiness’ in season-ticket holders

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<sup>176</sup> Charles Dickens, *Dealings with the Firm of Dombey and Son: Wholesale, Retail, and for Exportation*, vol. 1 (New York: John Wiley (of late firm of “Wiley and Putnam”), 1848), 304–5.

<sup>177</sup> Gilbert Keith Chesterton, *The Outline of Sanity* (Gloucester: Dodo Press, 1927), 90.

<sup>178</sup> Philip Unwin, *Travelling by Train in the Edwardian Age*, Steam Past (London; Boston; Sydney: George Allen & Unwin Ltd, 1979), 51–2.

<sup>179</sup> Anon., *The Influence of Railway Travelling on Health*, 4.

<sup>180</sup> *Ibid.*, 26–9.

<sup>181</sup> *Ibid.*, 33–7.

<sup>182</sup> *Ibid.*, 38–40.

<sup>183</sup> *Ibid.*, 45–6.

<sup>184</sup> *Ibid.*, 52.

and other habitual travellers.<sup>185</sup> Describing one case of such ‘railway sickness,’ one travel guide book concluded that ‘[t]he simple truth was, that the performance of a journey of a hundred miles within so short a space of time, and at such a rapid pace, had too greatly excited the nervous system, and had otherwise disturbed the functions of a delicate organization and a debilitated frame.’<sup>186</sup> On these scientific grounds, *The Lancet* warned its readers to think twice before buying a seaside house with the intention of commuting there to sleep in the healthy sea air; the journeys back and forth and the resultant bodily hardships might defeat the entire purpose!

This had peculiar effects on the travellers’ relation to time. As we have seen, the railway network centred on turning travellers into immutable mobiles that might travel without transformation; however, passengers in fact underwent *more* bodily transformation when travelling by train than if they had travelled by other available means. The *Lancet*’s report was unequivocal:

It is idle to say that journeys from one end of London to the other occupy as long or a longer period of time; for as you well know, and no doubt have carefully made out, the hurry, anxiety, rapid movement, noise, and other physical disadvantages of railway travelling, are peculiar to that method of conveyance, and a railway journey of an hour, at the rate of fifty miles an hour, is almost as fatiguing as half a day’s journey on the road.<sup>187</sup>

Indeed, the journal argued, regular railway passengers *aged more rapidly* because of the constant rocking of the carriages, and the intense work the body had to perform to absorb the unfamiliar impacts. ‘I have had a large experience in the changes which the ordinary course of time makes on men busy in the world, and I know well to allow for their gradual deterioration by age and care,’ declared one writer simply presented as ‘one of the leading physicians of the metropolis,’ ‘but I have never seen any set of men so rapidly aged as these [particular regular railway travellers] seem to me to have done in the course of few years.’<sup>188</sup> The moving passenger was not so immutable after all. ‘The traveller’s mind takes little notice of the thousands of successive jolts which

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<sup>185</sup> *Ibid.*, 43–5.

<sup>186</sup> Anon., *The Railway Travellers’ Handy-Book*, 7.

<sup>187</sup> Anon., “The Influence of Railway Travelling on Public Health: Report of the Commission, III,” *The Lancet* 1 (January 18, 1862): 80.

<sup>188</sup> *Ibid.*, 79–80.

he experiences,' warned the *Lancet*, 'but every one of them tells upon his body.'<sup>189</sup> The body's passage was far from free; even railway times took their toll.

## CONCLUSION

The Victorian railway network was an important site of secularization. Its technological ensemble and its associated, embodied micro-practices mediated a social imaginary whose temporal dimension was actively invested with a conception of secular time. Passengers were physically embedded in a network whose coordination was premised on turning them into immutable mobiles whose flight without friction along a 'Newtonian road' was a basic premise of accurate calculation and coordination. Secular time was implied whenever railway travellers consulted and negotiated their way through labyrinthine timetables, whether portable or posted on a station wall, where they confronted a representational form which implied the notion that all spaces, no matter how far apart, occupied the same temporal 'grid.' The integration of the network on a national scale extended civic ('local') time beyond the town or parish border, so as to envelope the entire nation as a totalized and increasingly synchronized whole, its various facets and interest occupying a single interval.

However, railways also mediated historical time. The material network itself was conceived as a single 'epoch-making' event, manifesting a qualitative rupture from the past. Politically speaking, the institution of a universal and neutral national and global timeframe was ineluctably intertwined with the postulation of an authoritative present centred on Greenwich, London, and the particular historical qualities this site was thought to manifest. Timetables sought to represent all possible journeys, and yet their periodical form denied the very possibility of such representation, implicitly acknowledging that the system itself was dynamic, fragile, and unpredictable. Finally, the immutable mobiles upon whose construction the entire network centred—the bodies of the railway travellers themselves—became unexpected sites of alien symptoms of unprecedented and peculiar deceases requiring equally unprecedented cures. Indeed, the meticulous manufacturing of the Newtonian road; the avalanche of published advice books to travellers; the synchronization of clocks on a uniform national standard; and the various other attempts to coordinate and smooth the

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<sup>189</sup> Anon., *The Influence of Railway Travelling on Health*, 141.

passenger's passage: all battled against *and* enabled the historical processes of qualitative change made manifest in the network itself.

Far from imposing a monolithic and one-dimensional time frame on 'natural' communities or individual subjects, then, the Victorian railway mediated at once a secular present enveloping the entire nation *and* a historical present of a particular and distinct quality. The network was itself both stable and in motion, at once complete and in a process of developing. We have seen how this was exemplified in the case of timetables, whose periodical appearance implicitly denied the uniform temporality they sought to represent. The next chapter will elaborate this analysis of the periodical dynamic, focusing on another Victorian accomplishment: the constitution of a national and even global 'public sphere,' as manifest in the technologies and practices surrounding the consumption of daily news.

## 5. GIVE US THIS DAY OUR DAILY NEWS

### Periodicity, papers, and the public sphere

In 1908, the Catholic Truth Society (founded in 1868) published a pamphlet giving advice, in the form of listed ‘*Don’t*s,’ on how devoted Catholics could engage in public debate through whichever journal they were habitually reading. Comparing engagement in the public sphere to a soldier’s engagement in battle, it encouraged young Catholics to draw inspiration from the Tractarian ‘heroes’ of the Oxford Movement. ‘[T]he weapons that the English laity have been counselled to take up ... are those of prayer and pen, of voice and organization.’ And, the author added, ‘money too is needed.’<sup>1</sup>

The public sphere is one of Taylor’s most important examples of a secular, modern social imaginary.<sup>2</sup> Obviously, the Victorian public sphere was not ‘secular’ in the sense that it excluded ‘religious’ opinions – in fact, it contained all kinds of viewpoints and arguments, not least self-professed ‘religious’ ones. As William D. Rubinstein has noted, ‘[r]eligious debate, that is the discussion on all aspects of organized religion ... constituted a grossly disproportionate share of all public discussion during the nineteenth century in Britain, and especially the decades before 1870.’<sup>3</sup> British ‘religious’ periodicals and magazines far outnumbered those of no particular confession, while confessing believers—such as the soldiers of the pen targeted by the Catholic Truth Society’s pamphlet—equally contributed in papers of no profession in particular. As is well-known, debates raged over whether it was appropriate to read news on the Sabbath or whether one should use the day of rest to ‘reflect’ on the past week or month.<sup>4</sup> Some even claimed, as W.T. Stead did in the 1890s, that the newspaper had supplanted religious texts as ritual sources of moral and intellectual nourishment; ‘the newspaper is the daily scripture of the majority of

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<sup>1</sup> John (B.A.) Hannon, *The Use of the Pen: Practical Hints on Letters to the Press*, Protestant Controversy (London: Catholic Truth Society, 1908), 1–2.

<sup>2</sup> See in particular Charles Taylor, *A Secular Age*, 185–96, 392–3.

<sup>3</sup> W.D. Rubinstein, *Britain’s Century: A Political and Social History*, The Arnold History of Britain 2 (London; New York; Sydney; Auckland: Arnold Publishing, 1998), 298.

<sup>4</sup> Mark W. Turner, “Periodical Time in the Nineteenth Century,” *Media History* 8, no. 2 (2002): 191.

men.<sup>5</sup> Yet for many professing religious men (and increasingly women), the newspaper constituted more of a common battleground than a participant or potential opponent in the battle: newspapers were simply expressing what ‘the public’ demanded at any time, as well as providing a space in which it could express its diverse views. In 1892, the radical and one-time newspaper editor Henry W. Massingham, writing a pamphlet for the Religious Tract Society, argued that whatever was printed in newspapers was what ‘the public’ had ‘ask[ed] for and insist[ed] upon having.’ Indeed, this fact provided readers who felt the call a chance to influence the current of events. Massingham expressed hope for a future ‘when Christian men will demand even in the Daily Press a larger recognition of Christianity,’ since ‘we cannot mar the work by leaving the literature [that the public] must read perilous to their moral and religious life.’ It was ‘undoubtedly true,’ he concluded, ‘that a newspaper is a kind of neutral ground upon which men of faith and no faith may meet.’<sup>6</sup>

Following Taylor, it is precisely this assumed neutrality that indicates the structural secularity of the public sphere. Whoever participates in the public sphere must do so through the channels provided by media such as newspapers. Yet, in the modern social imaginary of the public sphere, these structures are themselves seen as subject to the continuous collective action of society itself – they are neutral mediators of their content, empty frameworks, as it were, erected for the benefit of all.<sup>7</sup> In other words, it is society’s on-going collective action in and through secular time—without reference to any transcendent order—that provides the basis of the media themselves. In this sense, according to Taylor, the public sphere is entirely and exclusively secular.

Taylor’s analysis might be usefully complemented by that of philosopher Marshall McLuhan, who famously declared that ‘the medium is the message;’ in other words, that the most important impact of news media comes from their *form*—their particular mode of mediation—rather than their mediated content, and that this material form has specific implications both for practical use and for the imagination of the reader.

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<sup>5</sup> W.T. Stead, “Wanted: A New ‘Times’,” in *A Journalist on Journalism*, ed. Edwin H. Stout (London: John Haddon & Co., 1892), 88. The comparison has been taken up by a number of theorists of modernity and secularization, most notably for the present purposes by Benedict Anderson.

<sup>6</sup> H.W. Massingham, *The London Daily Press*, The Leisure Hour Library - New Series (Oxford: The Religious Tract Society - Horace Hart, printer to the university, 1892).

<sup>7</sup> Taylor, *A Secular Age*, 193.

For example, '[t]he book is a private confessional form that provides a "point of view",' whereas, by contrast, the newspaper 'is a group confessional form that provides communal participation.' Here, the technological form and habitual collective practices are of much more importance than any ideological content—explicit or implicit—of the printed word itself. Indeed, McLuhan argued, the newspaper 'can "color" events by using them or by not using them at all. But it is the daily communal exposure of multiple items in juxtaposition that gives the press its complex dimension of human interest.'<sup>8</sup> Especially after the introduction of the telegraph, according to McLuhan, the particular editorial 'voice' of the newspaper was lost as a result of the heterogeneity in correspondents' reports and the lightning speed of communication. The newspaper page increasingly became an empty, 'neutral' space in which a multitude of different events were reported 'objectively' – that is, without any internal logic other than their simultaneous occurrence – in a 'daily mosaic.'<sup>9</sup>

In the wake of McLuhan's analyses (though obviously not always in agreement with these) several scholars have drawn attention to the centrality of conceptions of temporality in this material performance of a national public sphere. Most notably, in his much-debated analysis of nationalism, *Imagined Communities*, Benedict Anderson argues that the modern notion of the 'nation' ultimately centres on the collective and practical sharing of simultaneous experience.<sup>10</sup> For Anderson, the 'national' identity of the imagined community is conceivable only in terms of a certain conception of time, namely 'homogenous, empty time.'<sup>11</sup> The 'mass ceremony' of regular newspaper reading provides the most 'vivid figure for the secular, historically-clocked, imagined community [that] can be envisioned.' Newspaper reading

is performed in silent privacy, in the lair of the skull. Yet each communicant is well aware that the ceremony he performs is being

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<sup>8</sup> Marshall McLuhan, *Understanding Media*, Routledge Classics (London: Routledge, 2001), 221. The term human interest was for McLuhan closely related to the immediacy brought about by technologies such as the telegraph in particular. McLuhan saw the modern electrical technologies as a (re)turn to 'auditory' rather than 'visual' societies, and as re-establishing on a grander scale the tribal communal forms of pre-literate periods, a phenomenon he famously labelled the 'global village'.

<sup>9</sup> Marshall McLuhan, "Communication Media: Makers of the Modern World," in *The Medium and the Light: Reflections on Religion*, ed. Eric McLuhan and Jacek Szklarek (Eugene, Oregon: Wipf & Stock, 1999), 39–40.

<sup>10</sup> It is curious that Anderson does not reference McLuhan's work more than he does; most of his arguments regarding the relation between print culture, news media and the notion of modern nationalism are already present in McLuhan's analyses.

<sup>11</sup> The term 'homogenous, empty time' as characteristic of the temporal dimension(s) of modernity was famously coined by Walter Benjamin, who unlike Anderson and Taylor—again, a curious omission—coupled it with the notion of a 'Messianic time.' Walter Benjamin, *Illuminations* (London: Jonathan Cape, 1970).

replicated simultaneously by thousands (or millions) of others of whose existence he [sic] is confident, yet of whose identity he has not the slightest notion. Furthermore, this ceremony is repeated at daily or half-daily intervals<sup>12</sup>

Having read his or her morning paper, the reader might walk out and see copies of the same newspaper in the hands of neighbours, or in shops around the neighbourhood. This ‘roots’ the imagined community in everyday life and ‘creat[es] that remarkable confidence of community in anonymity which is the hallmark of modern nations.’<sup>13</sup> Victorian commentators noted similar dynamics at play in the collective habits of newspaper reading. In 1850, one early historian of the British press put it thus:

[Newspapers give] us ... day by day, and week by week, the experience of the whole world’s doings for the amusement and the guidance of each individual living man. It is a great mental camera, which throws a picture of the whole world upon a single sheet of paper. But though a great teacher, and an all-powerful instrument of modern civilization, there is no affectation of greatness about it. The Newspaper is the familiar of all men, of all degrees, of all occupations. If it teaches, it teaches imperceptibly.<sup>14</sup>

In 1862, an anonymous commentator in *Cornhill Magazine* put it in terms strikingly similar to Anderson’s.

Every morning ... a mass of print containing as much matter as a thick octavo volume is laid on our breakfast tables. It contains an accurate report of speeches which were made some hours after we went to bed and of the incidents which took place up to a late hour of the night; it gives us on the same day letters from persons specially employed for the purpose of writing them about the Chinese, the Americans, the Italians, the enfranchisement of the Russian serfs, and scores of other subjects; and besides this, it puts before us a sort of photograph of one day’s history of the nation in which we live, including not only its graver occupations such as legislation and commerce, but every incident a little out of the common way brought to light by police courts or recorded by local newspapers.<sup>15</sup>

According to Anderson, a sense of contemporaneous experience of this sort is the basic premise of the ‘nation’ – that peculiar modern imagined community: an abstract

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<sup>12</sup> Benedict Anderson, *Imagined Communities*, 40.

<sup>13</sup> *Ibid.* We might note that Anderson demonstrates little consistency or precision in identifying the kind of temporality in question. At various points he calls it ‘homogenous, empty’ or ‘calendrical’ time, and describes modern societies as ‘[communities imagined as] moving calendrically through homogenous, empty time,’ ‘secular historically-clocked, imagined communit[ies],’ and ‘communities of the type “horizontal-secular, transverse-time.”’

<sup>14</sup> Frederick Knight Hunt, *The Fourth Estate: Contributions Towards a History of Newspapers, and of the Liberty of the Press* (London: D. Bogue, 1850), 1–2.

<sup>15</sup> Anon., “Journalism,” *The Cornhill Magazine* 6 (July 1862): 60.



interval of time in which distant and otherwise unrelated events can be seen to co-exist, and hence as happening to the same ‘social’ entity.<sup>16</sup> Clearly indebted to McLuhan, Anderson argues that this notion of simultaneity is carried in the newspaper’s form rather than its content. The ‘empty’ present is embodied in the material pages themselves, where events are juxtaposed that have no other internal relation than happening simultaneously to the imagined ‘us’ of the national collective.<sup>17</sup> The essential connection between reported events is solely the steady onward clocking of homogenous, empty time. ‘Within that time,’ wrote Anderson, “the world” ambles sturdily ahead.’<sup>18</sup>

For Taylor, who draws heavily on Anderson’s analysis, there can be few better examples of the modern social imaginary than the notion of a national or indeed global public sphere: the collective performance of ‘a common space in which the members of society are deemed to meet . . . to discuss matters of common interest; and thus be able to form a common mind about these’;<sup>19</sup> a space imagined not only as independent of the political sphere (parliament, parties and ministers), but as an ultimate ‘benchmark of legitimacy.’<sup>20</sup> Here, the ‘outside check’ of political power is no longer a transcendent Other (whether a providential Will of God or eternal Laws of Nature), but instead an absolutely immanent and continuous discourse, through which society establishes itself in and through a time that is ‘purely profane.’<sup>21</sup> Newspapers are a technology of secularity because their form implies time as being exclusively secular, regardless of whether or not their content makes ‘religious’ claims. The modern public sphere thus exemplifies Taylor’s claim that religion, in modernity, exists in forms that are compatible with social imaginaries whose temporal dimension is ‘purely secular.’

The aim of this chapter, however, is to contest Taylor’s claim that the social imaginary of the public sphere is ‘purely secular’ by distinguishing between two different kinds of temporality materialized on the very level that Kevin Barnhurst and

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<sup>16</sup> Anderson, *Imagined Communities*. As noted above, Anderson’s account of nationalism has received forceful critique from post-colonial scholars. See in particular Partha Chatterjee, “The Nation in Heterogenous Time,” *Futures* 37, no. 9 (2005): 925–942.

<sup>17</sup> The other major commodity of Anderson’s modern ‘print-capitalism,’ namely the literary novel, operates with the same kind of time: its plots are predicated precisely on the notion of a shared ‘meanwhile’ in which several events can take place simultaneously. See Anderson, *Imagined Communities*, 25.

<sup>18</sup> Anderson, *Imagined Communities*, 37.

<sup>19</sup> Taylor, *A Secular Age*, 185.

<sup>20</sup> *Ibid.*, 188.

<sup>21</sup> *Ibid.*, 190–6.

others, echoing McLuhan, have called the ‘form of news.’<sup>22</sup> Building on the preceding chapters, it argues that we need to distinguish between the secular time that allows for national simultaneity, and the historical time manifest in the progressive evolution of a national (or global), autonomous, public opinion. As we shall see, both kinds of time were rooted in an ever-more expansive, technologically sophisticated network of news.

## NEWS NETWORKS

The following analysis centres on Victorian *daily* newspapers. Many kinds of periodical publications circulated before and throughout the nineteenth century, most of them neither issued on a daily basis nor concerned with reporting news. Quarterly, monthly, weekly, and twice- or tri-weekly journals, together with unstamped pamphlets and literary novels, provided targeted readerships (as defined, for instance, by professional, political, or gendered markers) with leisurely entertainment, moral edification, and informed views on current events.<sup>23</sup> Some periodicals had strong and articulated political leanings, like those that had been dominant at the beginning of the century, such as the Tory-inclined *Quarterly Review* (1809) or the more Whiggish *Edinburgh Review* (1802); others, such as Charles Dickens’ *Household Words* (published between 1850 and 1859), were closely tied to the book-publishing industry.<sup>24</sup> Weeklies such as *Punch* (1841) or the *Illustrated London News* (1842) pioneered satirical or pictorial forms of journalism.

However, strictly speaking, a periodical publication was not considered a newspaper ‘unless its object was to give the general current of news of the day,’ as defined by Lord Monteaule, arguing for the repeal of the so-called Taxes on Knowledge in the 1830s.<sup>25</sup> Likewise, in 1850, historian Frederick Knight Hunt added to this definition that newspapers were ‘published at fixed intervals ... and that each paper was

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<sup>22</sup> Kevin G. Barnhurst and John Nerone, *The Form of News: A History*, The Guilford Communication Series 1 (New York and London: The Guilford Press, 2001).

<sup>23</sup> See e.g. Margaret Beetham and Kay Boardman, eds., *Victorian Women’s Magazines: An Anthology* (Manchester and New York: Manchester University Press, 2001). For an introductory overview to the scholarship on nineteenth-century women periodicals, see Maria Diczenco, “Feminist Media and History: A Response to James Curran,” *Media History* 10, no. 1 (2004): 43–49.

<sup>24</sup> Many scholars have pointed out the close relationship (and indeed overlaps) between novels and newspaper texts during the Victorian period. For a discussion of these developments, see Matthew Rubery, “Victorian Print Culture, Journalism and the Novel,” *Literature Compass* 7, no. 4 (2010): 290–300. See also Linda K. Hughes and Michael Lund, *The Victorian Serial* (University of Virginia Press, 1991).

<sup>25</sup> Quoted in Collet Dobson Collet, *History of the Taxes on Knowledge: Their Origin and Repeal*, The Thinker’s Library 33 (London: Watts & Co, 1933), 220.

numbered in regular succession.<sup>26</sup> Focusing on publications reporting current events on a daily basis not only helps limit the scope of the present analysis; it equally calls attention to a general trend specific to the nineteenth century: daily newspapers eventually supplanting weekly periodicals as the dominant form of producing and distributing news.<sup>27</sup> The total number of daily newspapers increased dramatically during the Victorian period, as did their individual circulation numbers and geographical ambit. Also contributing to these numbers were a series of tax repeals from 1835 culminating in the abolition of advertising duty in 1853, stamp duty in 1855 and paper duty in 1861 – all of which had been in place since 1712.<sup>28</sup> According to one estimate, there were fifteen dailies published in London in 1860 (six evening and nine morning papers), as well as sixteen in the provinces, in addition to as many twice-weeklies.<sup>29</sup> Just before 1890 the total number had risen to no less than 150 daily publications.<sup>30</sup>

These numbers are of course provisional. Many newspapers ran only for a few years or indeed months before giving up or amalgamating with other newspapers, and consequently any notion of simple accumulative increase would be misguided. The early Victorian emergence of the ‘unstamped’ press, which could in many instances be categorized as pamphlets rather than newspapers, further complicates the issue. Furthermore, reading practices continued to differ between strata of the population – ‘middle-class’ readers perusing their newspaper quietly in the privacy of their home; poorer people more often gathering to read in groups, for example in pubs. These factors complicate any precise estimation of the actual circulation of newspapers; it is impossible to know how many times any single issue was read, or the number of

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<sup>26</sup> Hunt, *The Fourth Estate*, 10.

<sup>27</sup> Historian James Curran has identified no less than six such dominant ‘master narratives’ in current British media historiography, and called scholars to ‘dissolve linear narratives – whether of progress or regress – in favour of complexity.’ While the following account does try to steer clear of most of the tropes he identifies, it is in no way meant to be an exhaustive account. James Curran, “Media and the Making of British Society, C. 1700-2000,” *Media History* 8, no. 2 (2002): 135–154. Curran has offered his own critical and alternative synthesis in James Curran and Jean Seaton, *Power Without Responsibility: The Press, Broadcasting and New Media in Britain*, 6th ed. (London and New York: Routledge & Francis Group, 2003), 3–105.

<sup>28</sup> The Stamp Duty exempted publications which were published at intervals of 28 days, which was the rationale behind the Society for the Diffusion of Political Knowledge’ publication of a monthly ‘Companion to the Newspaper’ from 1833. See Anon., *The Companion to the Newspaper; and Journal of Facts in Politics, Statistics, and Public Economy*, ed. Society for the Diffusion of Political Knowledge - New York (London: Charles Knight - Printed by William Cloves, Duke-street, Lambeth, 1837), 1.

<sup>29</sup> Lucy Brown, *Victorian News and Newspapers* (Oxford: Clarendon Press, 1985), 4.

<sup>30</sup> This ‘dailiness’ did not include Sundays. See Stanley Morison, *The English Newspaper: Some Account of the Physical Development of Journals Printed in London Between 1622 and the Present Day* (Cambridge et al.: Cambridge University Press, 1932), 227–262.

(indirect) readers (see figure 5.1).<sup>31</sup> Nevertheless, as Lucy Brown has suggested, during the ‘second half of the nineteenth century the newspaper became established as a part of the normal furniture of life for all classes.’<sup>32</sup> Indeed, between 1880 and 1914 the number of daily newspaper purchasers almost quadrupled, suggesting that at least towards the end of the century, the practice of private, daily reading was becoming ubiquitous.<sup>33</sup>



**Figure 5.1 – ‘Terrible News’ by Gunning King, *The Graphic*, 1888**

The technological and material networks that mediated the Victorian public sphere were increasingly extended and integrated, during the latter half of the century even on a national scale. The emergence of distribution networks such as the railways, for instance, accelerated the growth of readerships. Reading the newspaper became a common ‘tactic of travelling,’ a popular pastime for idle passengers, as indicated by the many newsstands and bookstalls built in station complexes and on platforms since the early 1850s.<sup>34</sup> More importantly, the railway network made possible a much wider

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<sup>31</sup> Alan J. Lee, *The Origins of the Popular Press in Britain*, vol. 2nd (London: Groom Helm, 1980), 35–41. A directory of Victorian newspapers and periodicals and their circulation numbers and the probable social position of their readership from 1855-70 can be found in Alvar Ellegård, “The Readership of the Periodical Press in Mid-Victorian Britain: II. Directory,” *Victorian Periodicals Newsletter* 4, no. 3 (1971): 3–22.

<sup>32</sup> Brown, *Victorian News and Newspapers*, 273.

<sup>33</sup> Matthew Rubery, *The Novelty of Newspapers: Victorian Fiction After the Invention of the News* (Oxford: Oxford University Press, 2009), 7.

<sup>34</sup> Between approximately 1850 and 1900, W.H. Smith alone established some 800 news-stands and bookstalls at all the important railway stations in England. James B. Jefferys, *Retail Trading in Britain 1850-1950: A Study of Trends in Retailing with Special Reference to the Development of Co-operative, Multiple Shop and Department Store Methods of Trading* (Cambridge: Cambridge University Press, 2011), 286.

geographical distribution of both London-based and provincial newspapers than was the case when coaches or canal boats were the best transport options.

The ‘nationalization’ of the press was however a slow and many-faceted achievement. Prominent London newspapers rarely reported news from the provinces, even though most of what constituted the ‘nation’ in geographical and demographical terms resided there. In fact, London boasted a large selection of local newspapers of its own, in addition to the few metropolitan newspapers aspiring to be ‘national,’ such as *The Times*. These covered specific areas of the capital, thus treating the capital more as an assemblage of local places than as a united whole. Beyond London, many morning papers, halfpenny evening papers, and local weeklies covering specific counties and/or towns were published quite independently of any metropolitan connections.<sup>35</sup> Provincial newspapers sold and distributed content amongst themselves, so that almost any local newspaper contained more news from around the UK than did London newspapers.<sup>36</sup> Indeed, the provincial news network operated with a relative autonomy that has recently led some historians to question whether a ‘national’ view of nineteenth-century press is possible at all – at least if the view is taken from London itself.<sup>37</sup>

Even so, contemporary politicians and advertisers considered this to be one single news network, and as such vital to their own potential impact on larger territorial scales. As one contemporary historian wrote,

[t]he provincial press ... is the canal of information which irrigates the country, and makes knowledge fruitful in the land: it is the great system of arteries which, circulating through the body politic, carries nourishment to, and receives strength from, the heart which is in London: it is as a hundred tributaries bringing their streams of intelligence into the source from whence springs the London press.<sup>38</sup>

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<sup>35</sup> Provincial newspapers often shared both content and technological equipment. Andrew Hobbs, “When the Provincial Press Was the National Press (c. 1836-1900),” *International Journal of Regional & Local Studies* 5, no. 1 (2009): 16–43.

<sup>36</sup> Provincial editorials were often distributed from the capital by railway in the form of stereotypes ready to be used in rotary presses, and customarily dealt with national rather than local issues. From the 1860s, stereotype plates of the kind used on roller presses were transported by train to several localities and used for printing identical pages in different publications. Provincial editors occasionally met the practice with hostility. *Ibid.*, 30.

<sup>37</sup> Hobbs, “When the Provincial Press Was the National Press (c. 1836-1900).”

<sup>38</sup> Alexander Andrews, *The History of British Journalism: From the Foundation of the Newspaper Press in England, to the Repeal of the Stamp Act in 1855, with Sketches of Press Celebrities*, vol. 1 (London: Richard Bentley, 1859), 282.

In terms of geographical and demographical coverage, then, the provincial press and its metropolitan counterpart together constituted an ever-more nationally integrated network. The electric telegraph was especially important in this respect, becoming central to the constitution of an experience of simultaneity embracing the provinces and London alike. As we have seen in the previous chapter, by mid-century telegraphic lines followed most railway tracks, where electricity was initially being used for signalling. The Telegraph Acts of 1868 and 1869 transferred the 'exclusive privilege of transmitting telegrams within the United Kingdom' from the five major telegraph networks to the Post Office.<sup>39</sup> Already at this time, according to one estimate, 'the public telegraph network consisted of almost 150 000 km of wire and over 3000 stations, plus another 1000 stations provided by the railway companies'.<sup>40</sup> The cheapening of telegraph services (from 1870 anyone could send a telegram for the price of one shilling) and the establishment of more telegraph offices in major towns, led to a substantial increase in the popular use of telegraphy. Between 1874 and 1899 the number of single words transmitted increased from 4.2 million to 15.7 million.<sup>41</sup>

Furthermore, after the mid-century establishment of news agencies such as Reuters (established in 1851), newspapers began receiving regular and systematic communication through national and global telegraphic networks. In the latter half of the century, Julius Reuter's news agency became, in the words of one historian, 'an unofficial but important part of the worldwide machinery of the British Empire.'<sup>42</sup> Between 1854-6, *The Times* was the only English newspaper using its own correspondents as sources for its reports from the Crimean War. By the end of the 1860s, by comparison, Reuters had secured a number of subscribers to its regular reports from overseas among both London and provincial papers.<sup>43</sup> Furthermore, from its formation in 1868, the Press Association secured direct links between provincial

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<sup>39</sup> Quoted in Ken Beauchamp, *History of Telegraphy*, IEE History of Technology Series 29 (London: The Institution of Electrical Engineers, 2001), 73.

<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*, 81.

<sup>42</sup> Donald Read, *The Power of News: The History of Reuters, 1849-1989* (Oxford: Oxford University Press, 1992), 28. While Reuters reports strove to be accurate, 'the British cause was always assumed (even if tacitly) to be 'right' and British troops 'ours.' *Ibid.*, 65.

<sup>43</sup> Read, *The Power of News*, 45.

newspaper offices and the telegraph companies.<sup>44</sup> News agencies increasingly distributed content in ready-made format, on partly printed sheets or even stereotyping, and newspaper owners—some, as we have seen, owning smaller networks made up of several provincial papers not necessarily connected to London—could now fill large parts of their papers with content provided in this way. By the 1890s, ‘every town of any size’ boasted at least two daily newspapers containing both national and international news. The telegraph system, together with the news agencies, became essential in establishing approximate simultaneous publication of the same foreign intelligence across the geographical space of the nation.

### PUBLIC OPINION

The expansion and integration of the Victorian technological news network was associated with the historical manifestation of public opinion as a key referent in the nation’s political life. Notions of a public opinion and a public sphere in which it is formed did not of course originate in the Victorian period.<sup>45</sup> As seen in chapter 3, a number of historians have examined the economic, political, temporal and discursive aspects of the emergence of an autonomous ‘public’ in England long before the nineteenth century. Nonetheless, only during the nineteenth century did public opinion come to be invoked on a continuous basis, as one among many potential sources of authority. The Victorian period saw a significant proliferation of issues related to the representation and improvement of public opinion through periodical publications, as well as concerns with freedom of speech. Indeed, the Victorians made public discussion itself a permanent topic of public discussion – quite what public opinion was and how it might be improved became itself an object of public opinion. After the Napoleonic Wars, public opinion was increasingly spoken of as a supreme authority before which all politics must subject to scrutiny. Historians have associated this shift with the rise of ‘liberal Toryism’ and in particular the statesmanship of George Canning.<sup>46</sup> According to Jonathan Parry, Canning established that public

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<sup>44</sup> Roger Neil Barton has demonstrated that the underlying motivation for extending the telegraphic networks were not necessarily—not even primarily—news distribution. See Roger Neil Barton, “The Birth of Telegraphic News in Britain, 1847-68,” *Media History* 16, no. 4 (2010): 379–406.

<sup>45</sup> For insightful discussions of scholarly approaches to the notion of public opinion, see e.g. Slavko Splichal, *Public Opinion: Developments and Controversies in the Twentieth Century*, Critical Media Studies: Institutions, Politics, and Culture (Lanham, Maryland: Rowman & Littlefield, 1999); Slavko Splichal, ed., *Public Opinion and Democracy: Vox Populi – Vox Dei?* (Cresskill, NJ: Hampton Press, Inc, 2001).

<sup>46</sup> Boyd Hilton, *A Mad, Bad, and Dangerous People? England, 1783-1846*, The New Oxford History of England (Oxford: Oxford University Press, 2006), 309–17.

opinion was the ultimate basis and animating force of the state, an idea which came to be generally shared across the political spectrum, and was subsequently maintained by successive Whig governments.<sup>47</sup>

The so-called Queen Caroline affair of 1820 in particular gave the ‘tribunal of the public’ a new place in popular imagination and political debate.<sup>48</sup> The response to the events surrounding the Queen’s return from exile constituted something of a ‘high-water mark of the post-war agitation,’ with high levels of popular involvement, wide coverage in pamphlets, and association with radical groups sometimes threatening revolution.<sup>49</sup> Whereas earlier events such as the Peterloo uprising had served to cast doubt upon the ability of ‘public opinion’ to prevent violent outbreaks, the Queen Caroline affair was taken, at least by advocates of reform, as positive proof ‘that a widespread agitation could be vehemently oppositional and at the same time protect the basic pillars of the social fabric: namely, those family and matrimonial values on which the opposition to the King was predicated.’<sup>50</sup> The fact that the Queen, legally speaking, lost her case did not quench her supporters’ enthusiasm for public opinion’s ultimate ‘triumph.’ ‘We have just witnessed the irresistible force of public opinion,’ wrote physician and political writer Charles MacLean after the Queen’s trial, ‘[and i]t is incumbent upon us to maintain that opinion in activity.’<sup>51</sup>

[I]t cannot be otherwise than indifferent, whether a few hundred individuals, corruptly exercising functions which do not belong to them, and which could never, of right, have belonged to any tribunal, be compelled, by the irresistible sway of public opinion, to deliver a verdict according to justice, or have the insolence, in direct opposition to the sense of millions who compose the civilized and unbiased part of mankind, virtually to declare that they alone know what is truth, what is justice, what is evidence; that whether in regard to the highest or to the most ordinary concerns of life, they alone are infallible judges, and all the rest of the world are mere barbarians.<sup>52</sup>

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<sup>47</sup> Jonathan Parry, *The Rise and Fall of Liberal Government in Victorian Britain* (New Haven and London: Yale University Press, 1993).

<sup>48</sup> See for instance John Stevenson, “The Queen Caroline Affair,” in *London in the Age of Reform*, ed. John Stevenson (Oxford: Basil Blackwell, 1977), 117–148.

<sup>49</sup> *Ibid.*

<sup>50</sup> Dror Wahrman, “Public Opinion, Violence and the Limits of Constitutional Politics,” in *Re-reading the Constitution: New Narratives in the Political History of England’s Long Nineteenth Century*, ed. James Vernon (Cambridge: Cambridge University Press, 1996), 119.

<sup>51</sup> Charles Maclean, *The Triumph of Public Opinion. With Proposed Articles of Impeachment Against the Ministers of the Crown in the Case of Caroline, Queen of England* (London: W. Marchant, 1820), viii.

<sup>52</sup> *Ibid.*, 1.



In the first book (published in 1828) devoted entirely to the question of public opinion, Whig MP William MacKinnon related its ‘rise and progress’ directly to the present level of ‘civilization’ achieved in Britain. The emergence of public opinion was, he argued, conditional on a certain ‘degree of information and wealth, which together may be styled civilization, and also ... proper religious feeling.’<sup>53</sup> For MacKinnon, as for so many of his contemporaries, it was crucial that the government of any civilized country be governed by the dictates of public opinion, and not vice versa. Indeed, the mere assumption that ‘the form of government in a country [is what] gives freedom and security,’ was mistaken, he argued; it was rather the strength and prevalence of the ‘requisites’ of public opinion that underpinned the establishment of ‘a liberal government and constitution.’<sup>54</sup> To put it in Taylor’s terms, the very being of constitutional government was not based in any action-transcendent structure such as a Great Chain of Being; nor on a founding event in a past beyond memory, a ‘time immemorial.’ Instead, civilizational government was founded on the continuous affirmation of public opinion.

The young liberal MP John C. Colquhoun advocated similar views in 1831, when he urged peers not to oppose public opinion in the matter of the Reform Act. Public opinion, he held, was the tribunal before which Whigs and Tories alike must appear. It was ‘the *deliberate opinion of the majority* of reflecting and educated men, of the highest as well as the lowest ... To oppose such an occurrence of opinion, is not only unavailing, it is altogether unconstitutional.’<sup>55</sup> Colquhoun regarded it a ‘mere fact’ that the present age was one in which ‘the influence of the few has given way to the *opinion of the many*.’<sup>56</sup> For better or worse, he argued, public opinion was ‘omnipotent, and present every where [sic].’ What was at stake was not whether it existed—it obviously did, he argued—but how one could cooperate with it and facilitate its further progress.

I do not say whether it is well that such a power should govern – this is no longer the question; – it is now established, and whether we like it or not,

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<sup>53</sup> William Alexander MacKinnon, *On the Rise, Progress, and Present State of Public Opinion, in Great Britain, and Other Parts of the World* (London: Saunders and Otley (Printed by William Clowes), 1828), 1.

<sup>54</sup> *Ibid.*, 340.

<sup>55</sup> John C. Colquhoun, *Reform: The Lords Against the Commons and Public Opinion Over All* (Glasgow: Printed at the University Press for Atkinson & Co.; Wm. Tait, Edinburgh and James Ridgway, London, 1831), 15.

Emphasis in original.

<sup>56</sup> *Ibid.*, 27–8. Emphasis in original.

we must submit to its authority ... to denounce its evils, would appear to me as unprofitable as to condemn the effects of the natural atmosphere.<sup>57</sup>

Whether one liked it or not—and certainly many did not—public opinion was becoming part the very political environment of the age.

Precisely who was to be included in ‘the public,’ and what its relation should be to the press, was, however, not a straightforward issue. William MacKinnon, cited above, reserved the term public opinion for the articulated views of individuals of good means, a certain level of education, and ‘proper religious feeling.’

Public opinion may be said to be, that sentiment on any given subject which is entertained by the best informed, most intelligent, and most moral persons in the community, which is gradually spread and adopted by nearly all persons of any education or proper feeling in a civilized state.<sup>58</sup>

MacKinnon hence understood public opinion as the accumulated sum of the informed and well-considered opinions of specific individuals, and distinguished clearly between public opinion and mere ‘popular clamour.’ Likewise, legal scholar Hommersham Cox argued that public opinion—not least because of the negative influence of crowds on the individual’s judgement—must be articulated by independent individuals.

Men who, individually, are humane, tolerant, and sensible, collectively, are comparatively incapable of exercising their feelings and judgement voluntarily. By mutual pressure their thoughts are wont to become confluent, like many waters mingling in a current and flowing all by one way – often by a very devious way, through barren plains – often by a self-destructive way, over vortices insatiable, and treacherous quicksands – often by a dark way, through gulfs and chasms which the light of heaven does not penetrate – often by a way of violence and destruction down mountain steeps, through rocky barriers, and over sudden precipices; sometimes by a right way, a noble stream flowing calmly and magnificently onwards, fertilizing the earth, and bearing rich freights of blessings for the whole human race.<sup>59</sup>

Public opinion stood as if ‘above’ the unpredictable fluctuations of the world, embodied in the informed individual scrutinizing the state of ‘society’ as a single, totalized entity. The purpose of the press was hence to provide readers with reliable

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<sup>57</sup> Ibid., 28.

<sup>58</sup> MacKinnon, *On the Rise, Progress, and Present State of Public Opinion*, 15.

<sup>59</sup> Hommersham Cox, *The British Commonwealth: Or a Commentary on the Institutions and Principles of British Government* (London: Longman, Brown, Green, and Longmans, 1854), 225.

information facts for their individual consideration (as well as to offer guidance as to what conclusions would count as truly ‘rational’).

These views exemplify what Mark Hampton has called an ‘educational’ ideal of the press, entailing that the mission of the press was to ‘inform’ or ‘elevate’ the individual reader into a rational recognition of ‘supposedly established truths – such as the scientific basis of political economy and the wonders of the British constitution.’<sup>60</sup>

However, Hampton argues, in the latter half of the century, a ‘representational’ ideal became increasingly dominant (though not hegemonic). In contrast to the ‘educational’ ideal, this carried the notion that newspapers *reflected* a public opinion which was already there, so to speak, waiting to be articulated. No longer cast as a set of clearly articulated statements or political positions, public opinion was increasingly conceived as a kind of self-generating and subterranean ‘social’ force embracing the nation in its entirety, and on which the very legitimacy of political governance depended. The press was, in this sense, merely the material manifestation of the underlying, ever-changing force of public opinion:

This close association between public opinion and the material technologies—pamphlets, papers, and so on—and practices through which it manifested was not new. Writing in 1836, Henry Bulwer Lytton described the relation between the press and the quality of the age in the following terms: ‘[o]ur age is the age of free thought, of independence – our age is the age of the press – the golden age of the periodical writer.’<sup>61</sup> In 1843, Robert Vaughan, describing the defining characteristics of urban civilization, saw the printing press as a key factor in the gradual dispersion of civilizational ‘values.’ Since the time when the printing press was invented, he wrote,

knowledge of every kind has been descending slowly but constantly, toward the great mass of society. Its direct influence covers a much wider space than among the most literary people in any preceding time, and its indirect influence is everywhere. Millions are instructed in letters in the present age as the same class has never been instructed before; and millions who have received little direct instruction of that nature, benefit by its indirect influence, as the consequence of its greater prevalence, in a manner no less unprecedented.<sup>62</sup>

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<sup>60</sup> Mark Hampton, *Visions of the Press in Britain* (Urbana and Chicago: University of Illinois Press, 2004), 9.

<sup>61</sup> Henry Lytton Bulwer, *The Monarchy of the Middle Classes: Or France, Social, Literary, Political* (Paris: Baudry, 1836), 186.

<sup>62</sup> Robert Vaughan, *The Age of Great Cities, Or, Modern Society Viewed in Its Relation to Intelligence, Morals, and Religion* (London: Jackson and Walford, 1843), 81.

Similarly, in a lecture to the YMCA in Dublin in 1845, Irish judge John Hastings Otway encouraged his listeners to take pride in being English because of how public opinion was mediated even through the imperfect journals and newspapers of the day. Public opinion was the impersonal political agent behind the Reformation, he claimed. Though not to be conflated with the will of God, it had ‘no doubt [been] raised with His permission, and made to work His sovereign will.’<sup>63</sup> It was a historical force which, ‘when largely moved, might throb through every pulse and fibre of a nation.’<sup>64</sup>

After the mid-century, this view of the visible and material news network as a manifestation of the ‘force’ of public opinion became more articulated. As one writer put it in 1860,

... the chief wonder of all the age’s wonders lying in the *immateriality* of their causes. This a material age!—when, granted a breath of vapour, a flash of fire, an electric touch, and a new world *is!* Why, it is so directly the reverse of material, that it is *the age* that has gifted matter with a soul.<sup>65</sup>

Not only did newspapers usher in a new age of public opinion – a new age of public opinion was indeed making itself manifest in the newspapers: ‘[t]he public life expresses itself in the press.’

The press is in fact a manifestation of our collective self,—therefore not to be feared; but the press is also the manifestation of the entire external public,—therefore not to be absorbed by any unit whether party or individual. We do not speak now of this or that representative of the press ... we are speaking in the abstract of that prodigious force newly sprung from the necessities of the age,—so newly as to be yet to a great degree self-ignorant, but from which not one gain which the age is reaping can be altogether separated.<sup>66</sup>

Other commentators concurred. ‘The Press is the impersonation of a grand cosmopolitan Revolution,’ wrote historian James Grant in 1871,

—not Revolution in the anarchical or worst sense of the term, but in the sense of a great moral, social, and political transformation. That is the treble mission of the Newspaper Press, and it will not only as surely accomplish it as the light of tomorrow will succeed the darkness of the

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<sup>63</sup> John Hastings Otway, *Public Opinion, A Lecture* (Dublin and London: Samuel B. Oldham; Seeleys, 1845), 7.

<sup>64</sup> *Ibid.*, 25.

<sup>65</sup> Anon., “The Political Press - French, British, and German,” *The North British Review* 34 (61 1860): 200.

<sup>66</sup> *Ibid.*, 184.

coming night ... Nothing can resist its onward course. It will scatter as chaff before the wind whatever combinations may be formed against it.<sup>67</sup>

For another historian, Gerald B. Herz, writing in 1902, there could be no better way into the 'national character' of an earlier period of English history than through the newspapers of the period in question: '[w]ith a powerful Press, public opinion needs no diligent research.'<sup>68</sup> In the news network itself, public opinion was immediately and materially manifest.

On this increasingly dominant view, the fluctuations and changes in the news network corresponded to fluctuations and changes in public opinion. Put another way, rather than being a static tribunal beyond the changing world, public opinion was itself seen as being in permanent transition. One late century commentator, Frank Taylor, saw public opinion as an infinite potential, only taking specific and actual form the moment it was articulated by newspapers. Hence, he argued, the task of the editor commenting on current events was to give specific shape to the vague and half-articulated feelings of 'the mob.' The editor, he wrote, 'translates into definite language the feelings of men who are too lazy, or too busy, or too stupid to perform that function for themselves.'<sup>69</sup> This had profound consequences for the question of political legitimacy. If public opinion manifested itself in the structures of liberal government, its ceaseless transition and movement also required such structures to constantly change in order to remain legitimate. William T. Stead, one-time editor of the *Pall Mall Gazette* and proponent of what Matthew Arnold labelled 'New Journalism,' had even less patience with parliamentary structures. In 1892 he argued that '[a] newspaper must "palpitate with actuality;" it must be a mirror reflecting all the ever-varying phases of life in the locality ... Hence it represents a district as no member [of Parliament] can.'<sup>70</sup> With characteristic ambition, Stead argued that the newspaper press was in fact more representative of the 'nation' than Parliament could ever be: 'Government tends ever downward. Nations become more and more

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<sup>67</sup> James Grant, *The Newspaper Press: Its Origin - Progress - and Present Position*, vol. 2 (London: Tinsley Brothers, 1871), 460.

<sup>68</sup> Gerald Berkely Hertz, *English Public Opinion After the Restoration* (London: T. Fisher Unwin, 1902), 151.

<sup>69</sup> Frank Taylor, *The Newspaper Press as a Power Both in the Expression and Formation of Public Opinion*, *The Chancellor's Essays* (Oxford: B.H. Blackwell, 1898), 9.

<sup>70</sup> W.T. Stead, "Government by Journalism," in *A Journalist on Journalism*, ed. Edwin H. Stout (London: John Haddon & Co., 1892), 30.

impatient of intermediaries between themselves and the exercise of power.<sup>71</sup> In other words, Parliament provided merely indirect representation; the newspaper press, by contrast, gave the national public immediate access to political power.

Here, the historical emergence of public opinion was cast as an irreversible evolution, manifesting itself in observable events and structures, and requiring these to conform constantly to its direction and rule. Laws such as the paper duty, for instance, could hence be dismissed as vain attempts to hinder what was ultimately an inevitable development. ‘It is impossible to doubt that a few weeks will see this mischievous obstruction to English Industry and the Progress of Education and enlightenment for ever swept away,’ wrote one group campaigning for greater freedom of the press in 1860.<sup>72</sup> Indeed, they argued, the freedom of the press and the elevation of public opinion – and hence of the state of ‘society’ itself – were intimately connected. ‘[T]he legislator can devise no more efficient means of promoting the mental culture and training of the working classes than by enabling the undertakers of literature to present it at the lowest possible price to the public.’<sup>73</sup> Likewise, Comtean positivist Frederic Harrison argued in 1875 that history was a progressive unfolding of rational laws, and that the subterranean evolution of public opinion manifested itself in the material organization of collective life peculiar to the present, civilized age.

If we mean by political progress the consolidation of public opinion, we cannot deny that the future belongs to it. To compare the force of public opinion as it was in Europe in 1773 and as it now is in 1873, the stiffest conservative can hardly be blind to the enormous difference. He will admit that the whole difference is bound up in the increase of popular education, of mechanical improvements, in the fusion of class under the influence of industry. He may not like any of these things; but he will hardly deny that they involve of necessity a totally new power in public opinion. Nor can he deny that they are all consequences or phases of the industrial type of society, gradually working out its complete development. But the industrial type of society is the definitive form of modern life, beyond which we cannot see or need not inquire. And so the growth of public opinion as a force is simply an epoch in the life of human society. Whether we like it or not, there stands the progress of public opinion, as inevitable as civilisation itself, and we might as well think of expelling it as of reviving bows and arrows of war.<sup>74</sup>

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<sup>71</sup> Ibid., 27.

<sup>72</sup> Anon., *Free Trade in Paper* (London: The Newspaper and Periodical Press Association for England, for Obtaining the Repeal of the Paper Duty, 1860), 17.

<sup>73</sup> *Morning Post*, quoted in *ibid.*, 18.

<sup>74</sup> Frederic Harrison, *Order and Progress* (London: Longmans, Green, and Co., 1875), 378.

Returning to former historical stages was not an option. ‘It is too late ... to ask working men if they would prefer going back to more primitive times,’ wrote old Chartist Samuel Kydd in 1888. ‘They could not if they wanted to, and that is a sufficient answer. There are new forces in operation, and these will make themselves felt.’<sup>75</sup> Indeed, one could not even begrudge pre-modern societies their lack of or disregard for public opinion, since historical periods were essentially different. As one contemporary historian put it, ‘[i]t would only be unfair to ascribe to their [people in the past] simple minds the more delicate aspirations of a different era.’<sup>76</sup>

While public opinion was seen as a historical force in universal terms, it was also seen as the animating force of a specifically British nation, sometimes in stark contrast to other nations, European or not. ‘It is quite impossible for foreigners to *understand* our press,’ wrote historian Alexander Andrews in 1859: ‘they have nothing like it.’<sup>77</sup> In an article comparing the British press with that of France and Germany, a writer for the *North British Review* argued that the former was superior in that rather than ‘speaking to’ the nation, it sought to ‘express’ it.<sup>78</sup> Indeed, the author wrote, the only reason the British public read newspapers in the first place was to thereby discover what its own opinion was.

Now we maintain that, at present, we alone—we, the public of Great Britain,—are sincerely desirous of discovering the truth about ourselves; and that in so far as we are really interested in this discovery, are we in advance of other countries; so far as we are really “seeking our own selve,”—seeking to know what *we truly are*, and are anxious to see the public thought faithfully expressed by the public voice,—by so much are we nearer than any other European community to the realization of what that vast modern institution, the *press*, ought to be.<sup>79</sup>

The press in Britain was less concerned with politics than with ‘whatever occupies the national mind’ at any given moment, the writer argued.<sup>80</sup> By contrast, ‘[w]hat *we* call “public opinion” does not exist in France, for the obvious reason that the collective, complex body which originates it, has no existence there. In France there is no

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<sup>75</sup> Samuel Kydd, *A Sketch of the Growth of Public Opinion: Its Influence on the Constitution and Government* (London: Elliot Stock, 1888).

<sup>76</sup> Hertz, *English Public Opinion After the Restoration*, 160.

<sup>77</sup> Andrews, *The History of British Journalism*, 1:6.

<sup>78</sup> Anon., “The Political Press - French, British, and German,” 187.

<sup>79</sup> *Ibid.*, 185.

<sup>80</sup> *Ibid.*, 188.

*public*.<sup>81</sup> The British press alone properly manifested a public opinion worthy of the name.

We are more or less inclined to believe that, of this anonymous expression of the universal thought, this impersonal press, we in Britain can alone furnish an example ... [W]ith us, the paper carrying the most weight would be that which should most immediately express the thoughts and feelings latent in the public mind. Abroad, people like to know what this or that man, or this or that *school* is thinking. *We* are busy with what we ourselves think.<sup>82</sup>

Newspapers such as the *Times* could ‘never [have] exist[ed] abroad,’ for the simple ‘lack of the great, self-organized, substantive public’ to which they gave voice. The true newspaper was hence an institution ‘thoroughly and exclusively British; for it is really and truly the expression of the public thought, whether temporary or permanent.’<sup>83</sup> Since the British press—and in particular the *Times*—was in this sense superior to all other European newspapers, the author concluded, and because it articulated the inner thoughts of the public so perfectly, it proved the superiority of the British race.

In the case of the British colonies, the situation was somewhat different: here, the existence of nationally specific public opinions might sometimes be admitted. In 1863, an anonymously published collection of editorials from Indian newspapers – which was circulated to several English periodicals – sought to demonstrate how official imperial accounts of governmental conduct differed from ‘native public opinion [as] expressed through the medium of the press.’<sup>84</sup> Indigenous newspapers, the preface declared, made manifest certain ‘native feelings,’ even a definite ‘indigenous mind,’ to which colonial powers should take heed; in other words, colonial authority, it was implied, required the support of native public opinion. At the same time, recalling the devastating events of 1857, the Indian editorials reminded their Indian readers that the future of the Indian people was dependent on British

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<sup>81</sup> *Ibid.*, 190.

<sup>82</sup> *Ibid.*, 184–5.

<sup>83</sup> *Ibid.*, 199.

<sup>84</sup> Anon., *Sir Mordaunt Wells and Public Opinion in India, Historical Pamphlets - Colonial* (Calcutta: C.H. Manuel at Scott & Co.’s Press, 1863). See also Anon., *United Australia: Public Opinion in England as Expressed in the Leading Journals of the United Kingdom* (Sydney: Charles Potter, Government Printer, 1890).



public opinion (not, we might note, the government) and that this, ultimately, was ‘the ruling standard in India.’<sup>85</sup>

Towards the end of the century, however, public opinion increasingly came to be seen as transcending all such political particularities; even the *North British Review* article cited above admitted that national borders would ultimately not be able to restrain its progress.

[T]he public is that unglorious crowd that lives, acts, determines events, and never “achieves greatness.” It is power without fame. The press is its voice. It is already a universal conscience, and will one day be the universal judge.<sup>86</sup>

In 1871 Regius Professor of Medicine, Henry W. Acland, predicted a gradual integration of all national public opinions into a single global one. ‘[C]ivilised people, in the surging to and fro of modern material life, are bursting the barriers of all former experience,’ he declared. ‘[The] telegraph and facile transport [are] modifying opinions, equalising the knowledge of distant states, and welding it into one world-wide public opinion.’<sup>87</sup> Public opinion was a global force manifest in the expanding material news networks, and hence marking a qualitative difference between past, present, and future.

### THE SECULAR FORM OF NEWS

As seen above, in the profusion of pamphlets and newspaper articles discussing public opinion, its evolution and current state, public opinion came to be treated as a singular entity immediately available to the scrutiny of detached observers; public opinion became an object of public opinion, so to speak. This grasping of public opinion as a singular and simultaneous whole was premised on a secular time allowing for collective contemporaneity. As we have seen, both Anderson and Taylor see *simultaneity* as the central organizing category of the modern imagined community. Under this concept,

society [is conceived as] a whole consisting of the simultaneous happening of all the myriad events which mark the lives of its members at that moment. These events are fillers of this segment of a kind of homogenous

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<sup>85</sup> Anon., *Sir Mordaunt Wells and Public Opinion in India*, 16.

<sup>86</sup> Anon., “The Political Press - French, British, and German,” 184.

<sup>87</sup> Henry Wentworth Acland, *National Health*, 2nd ed. (Oxford: James Parker and Co., 1871), 38–9.

time. This very clear, unambiguous concept of simultaneity belongs to an understanding of time as exclusively secular.<sup>88</sup>

As Anderson in particular argues, there is nothing else to suggest that the events reported on the newspaper page are related than that they happen to ‘us’—the imagined community—in a present moment that ‘we’ share. In this way, the grasping of public opinion as a single phenomenon, and the sense of contemporaneous experience mediated by the news network, were premised on a conception of secular time.

But how, more precisely, was this achieved in practice? Echoing the description of railway construction in chapter 4, the following argues that the concept of abstract, universal, secular time was mediated through a number of embodied micro-practices and local technological achievements, whose relative invisibility made the idea of absolute simultaneity appear obvious and simply ‘given.’ In this, the relation between two aspects of the Victorian news network were of particular importance: namely the intensified technologization of news production, presentation, and distribution, coupled with the promise of regular publication on a daily frequency.

#### *Technology, typography, and daily publication*

The Victorian period saw substantial improvements in printing technology.<sup>89</sup> As described in chapter 3, during the centuries preceding the Victorian period the form of news presentation had been largely determined by limitations in distribution networks and available printing technologies. In 1800, most printers were still working with tools and techniques some 300 years old. During the nineteenth century, however, every step of the printing process was mechanized or automatized, from composition (the setting of types) and the uniform application of ink, to the feeding of paper sheets

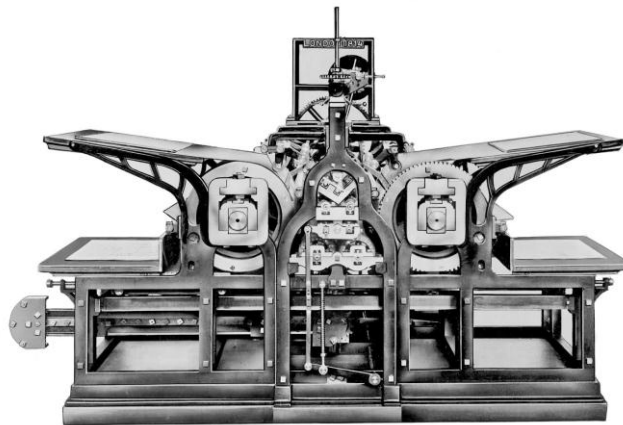
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<sup>88</sup> Taylor, *A Secular Age*, 713.

<sup>89</sup> The following does not mean to suggest that technological innovation (which in any case has never been a simple straight-forward matter) fully determines other circumstances. The present emphasis on technology is only meant to draw attention to some particular material and technological forms – both their implicit restrictions and their latent possibilities – that played a part in the constitution of a Victorian public sphere. On the one hand, mass production and distribution were made possible through the use of novel technologies which were developed at different times and places (and of course the dates of patenting or demonstration might far precede widespread use); on the other hand, the newspaper presses became the main sites of technological experiment and improvement, encouraged by demands both from (newly created and/or expanded) readerships and advertisers. This approach in many ways echoes Marshall and Eric McLuhan’s analyses of ‘formal’ as opposed to ‘efficient’ causes in media technologies. Marshall McLuhan and Eric McLuhan, *Media and Formal Cause* (Houston: NeoPoiesis Press, 2011). Marshall McLuhan and Eric McLuhan, *Laws of Media: The New Science* (Toronto; Buffalo; London: University of Toronto Press, 1988).

into the machine and the application of pressure to make an imprint, and even to the distribution of newspapers by railways.<sup>90</sup>

Too many small adjustments and modifications occurred across the range of technologies than can be accounted for here. One example is the mechanization of papermaking. The brothers Henry and Sealy Fourdrinier's 1803 improvements on an earlier French patent integrated all the formerly manual steps of the process, producing paper in a single continuous 'web' rather than separate sheets, hence increasing the output substantially. The consequential ten-fold increase resulted in a shortage of linen rags, which until then had been the most common material for manufacturing high-quality paper. Several other materials were tried in its place: straw, bark, reeds, and even pine needles. In the early 1840s, the idea was introduced to use mechanically ground wood treated with sulphite so as to create a pulp of cellulose fibres, but to little avail:<sup>91</sup> the scarcity of linen rags remained the most important reason for the high price of paper, and even the *Times*' 1854 promise of £1,000 for a suitable substitute did little to change this.<sup>92</sup> Only in the 1870s and 80s did wood pulp, together with esparto grass, become the most extensively used materials in paper production.<sup>93</sup>



**Figure 5.2 – The Koenig & Bauer Double Cylinder Press**

The most important sites of technological experimentation were newspaper printing offices, and in particular those of the *Times*. Being the first newspaper to support

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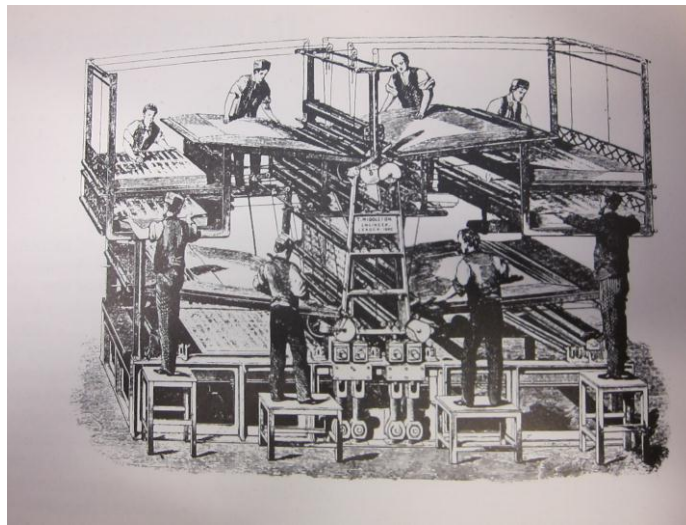
<sup>90</sup> Ellic Howe, *Newspaper Printing in the Nineteenth Century* (London: Fleet Street Press, 1943).

<sup>91</sup> Colin Clair, *A History of Printing in Britain* (London: Cassell & Company, Limited, 1965), 207–9.

<sup>92</sup> Michael Twyman, *Printing, 1770-1970: An Illustrated History of Its Development and Uses in England* (London: Eyre & Spottiswoode, 1970), 50.

<sup>93</sup> *Ibid.*; Allen Hutt, *The Changing Newspaper: Typographic Trends in Britain and America 1622-1972* (London: Gordon Fraser, 1973), 43.

itself solely by advertising revenues instead of subsidies from political parties, it had—from the 1820s—financial security to employ its own foreign correspondents, dispersed throughout the world and reporting news from the Far East and America alike.<sup>94</sup> It could also increase its circulation in spite of the ‘taxes on knowledge’ such as the Stamp Duty, which still put strict limits on other newspapers’ number of pages.<sup>95</sup> Finally, *The Times* could afford both to invest in and implement technological innovations: as a non-union house, it was among the few newspaper institutions that could apply new machinery without protest from the manual workers – compositors and printers in particular – who were increasingly being replaced by automatons.



**Figure 5.3 – The Applegath 4-Cylinder Press**

The increasing automatization of news production technologies had substantial impact on the extent of circulation and frequency of publication. During the Napoleonic Wars, the *Times* had struggled to meet the demands of its growing readership, and only partly succeeded when its printing offices acquired and improved the König and Bauer’s (K&B) steam-driven cylinder press (see figure 5.2).<sup>96</sup> When the first new issue was printed, on November 29, 1814, the new printing machine had an output capacity of approximately 1,000 sheets of paper per hour, some five times more than

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<sup>94</sup> P.M. Handover, *Printing in London: From Caxton to Modern Times* (London: George Allen & Unwin Ltd, 1960), 154.

<sup>95</sup> In 1836, the duty was reduced to a penny, but *The Times*’ competitive advantage remained until 1855, when the duty was abolished altogether. As Stanley Morison points out, this did not necessarily benefit the buyers of newspapers. ‘In 1836, the newspaper stamp which had been four pence (less discount of 20 per cent) since 1815 was reduced to one penny. The tax on paper was also brought down. The proprietors, rather than the public, gained, for the price to readers was revised from 7d. to 5d. only.’ Morison, *The English Newspaper*, 217.

<sup>96</sup> Hutt, *The Changing Newspaper*, 37. See also James Moran, *Printing Presses: History & Development from the Fifteenth Century to Modern Times* (London: Faber and Faber Limited, 1973), 101–11.

the Stanhope hand presses which had been in use since 1800.<sup>97</sup> In 1828, engineers A. Applegath and E. Cowper improved the K&B machine, combining four machines in a so-called ‘four-feeder’ (see figure 5.3), quadrupling the hourly output (though still printing on one side only).<sup>98</sup> A number of similar technological improvements and combinations allowed the newspaper to reach a circulation of a staggering 30,000 copies by 1841, over fifteen times more than at the turn of the century.<sup>99</sup> By 1854, the *Times* circulation had reached 55,000 copies, an astonishing number considering the circulation of its London competitors: the *Morning Chronicle* circulated 2,500; the *Morning Post*, 3,000; and the *Morning Herald*, 3,500.<sup>100</sup> In fact, its steam presses were likely the only ones in operation in London at the time.<sup>101</sup> Nevertheless, due to repeated boosts in the growth of readerships, for example during the Crimean War, the newspaper still had considerable difficulty achieving sufficient output.<sup>102</sup> After *Lloyd’s Weekly Newspaper* acquired a press from American printer Richard M. Hoe in 1856, *The Times* abandoned Applegath and Cowper’s constructions and bought two of Hoe’s the year after (see figure 5.4).<sup>103</sup> The mid-1860s saw the introduction of so-called web-presses—rotary presses using curved plates and a single roll of paper, four miles long—which (together with the 1860 repeal of paper taxes) allowed a further increase of output.<sup>104</sup> Roller presses were used to cast whole page matrixes in papier mâché moulds, and these curved stereotype plates were fastened to rotating cylinders.<sup>105</sup> In 1868, the number of sheets per hour printed this way on the *Times*’s machines had increased to 20,000.<sup>106</sup> However, during the 1870s, other publications substituted new presses for their old sheet-fed machines, and began challenging the *Times*’ technological advantage. By 1880 the *Times* circulated 50,000 copies, compared to the *Daily Telegraph*’s 217,000 and the *Standard*’s 200,000.<sup>107</sup>

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<sup>97</sup> Robert Bringhurst and Warren Chappell, *A Short History of the Printed Word*, 2nd ed. (Vancouver: Hartley & Marks Publishers, 1999), 194; Clair, *A History of Printing in Britain*, 211–13.

<sup>98</sup> Hutt, *The Changing Newspaper*, 45.

<sup>99</sup> Bringhurst and Chappell, *A Short History of the Printed Word*, 218; Hutt, *The Changing Newspaper*, 37.

<sup>100</sup> Handover, *Printing in London: From Caxton to Modern Times*, 163.

<sup>101</sup> Moran, *Printing Presses*, 123.

<sup>102</sup> Applegath’s construction of a vertical cylinder eight-feeder press in 1848, no doubt inspired by the American inventor Robert Hoe, further doubled the output, but still printed on one side only.

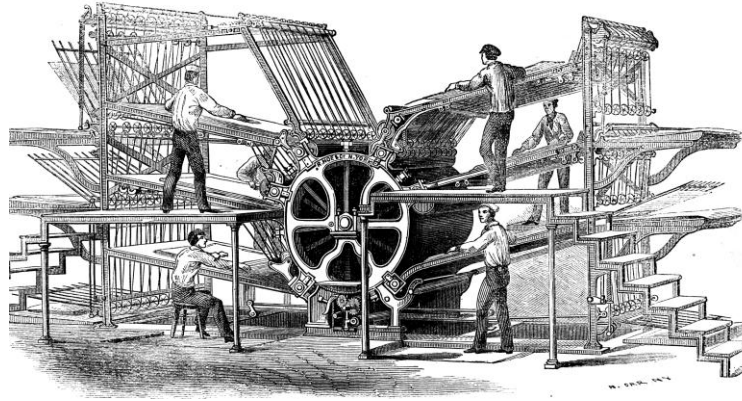
<sup>103</sup> Clair, *A History of Printing in Britain*, 215; Hutt, *The Changing Newspaper*, 46.

<sup>104</sup> Bringhurst and Chappell, *A Short History of the Printed Word*, 212.

<sup>105</sup> Clair, *A History of Printing in Britain*, 217.

<sup>106</sup> Bringhurst and Chappell, *A Short History of the Printed Word*, 194.

<sup>107</sup> Hutt, *The Changing Newspaper*, 50.



**Figure 5.4 – Hoe's 6-Cylinder Press**

Perhaps surprisingly, considering the immense changes caused by these developments in printing technology, the typographical form of Victorian daily newspapers—their visual and material presentation of news—remained the same throughout the century: as much text as possible compiled within a six- or seven-column grid (see figure 5.5). The *Times* had adopted this style early in the century, and it soon became standard for most daily newspapers; in these terms there were few differences between the *Times* and its main penny rivals in the metropolis, such as the *Daily Telegraph* and the *Standard*.<sup>108</sup> Different genres, such as poems or sports results, might indeed be presented in ways that made them stand out from the surrounding news reports, as if suggesting a comparatively ‘slower pace of life.’<sup>109</sup> But these qualitative differences were nevertheless all contained within the all-encompassing interval of secular time embodied by the page itself. Here, innumerable seemingly unrelated events and movements could be captured by a single glance at the page, as if representing a diverse but singular ‘social’ whole. In this, each newspaper embodied, in Anderson’s terms, a secular present conceived as an ‘empty’ container independent of its content – a content that might manifest all manner of qualitative differences independently of its ‘frame.’ In short, the uniform typographical layout provided simultaneous and immediate access to all the reported events in equal measure.

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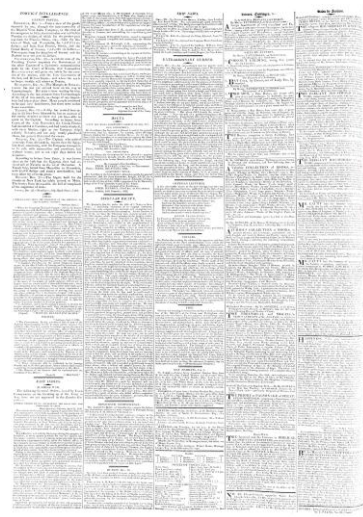
<sup>108</sup> Ibid.

<sup>109</sup> Natalie M. Houston, “Material Texts in the Public Sphere,” *Victorian Studies* 50, no. 2 (2008): 241.

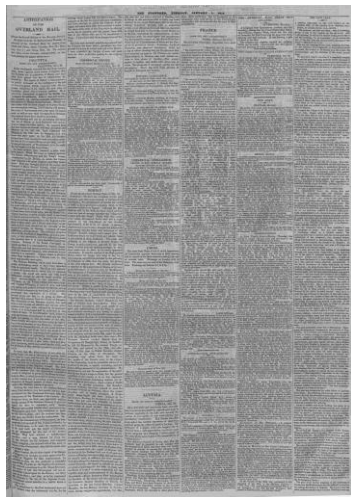




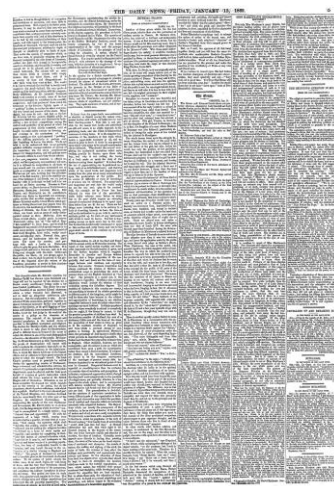
**The Times, 1800**



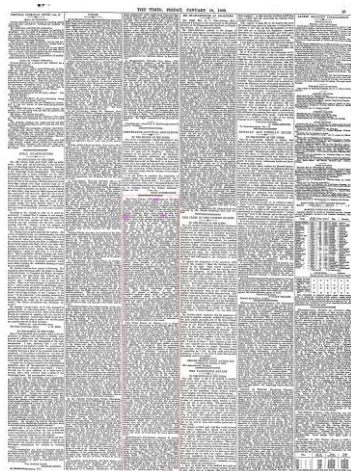
**The Morning Post, 1827**



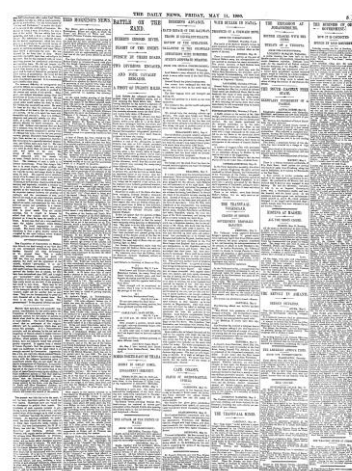
**The Standard, 1856**



**Daily News, 1869**



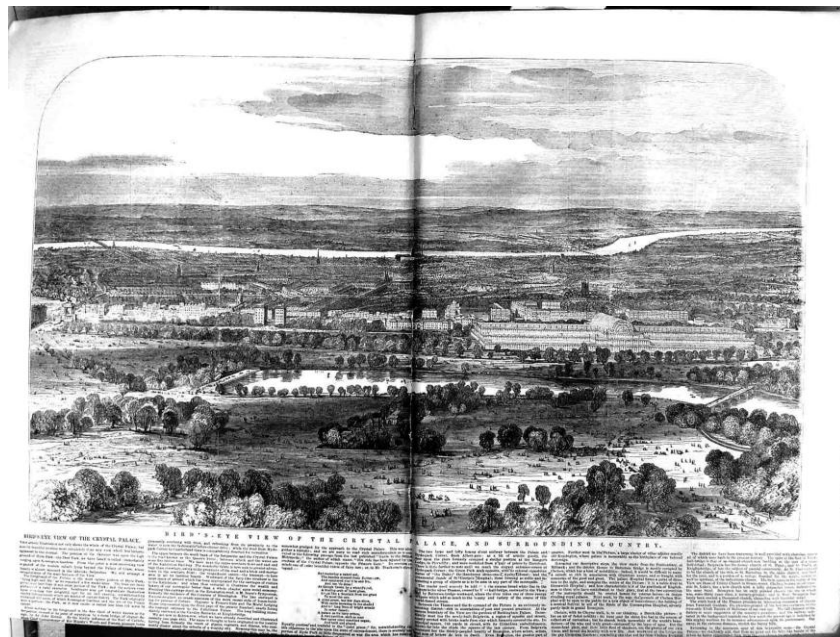
**The Times, 1889**



**Daily News, 1900**

**Figure 5.5 – Uniform grid-like form of news pages in daily newspapers, 1800-1900**

Towards mid-century, this uniformity appears quite striking, not only compared to American newspapers, where large headlines and more space around the text became increasingly common,<sup>110</sup> but also in light of the typographical variation exhibited by London weeklies such as *Illustrated London News* (see figure 5.6). At this time, the technological means necessary for more variation on each page—curved stereotypes in particular—were certainly available, and indeed adopted by most printing offices.<sup>111</sup> Equally, the 1855 repeal of the Stamp Act—which had put a strict limit on page numbers—would have made a wider dispersion of text across a higher number of pages affordable to most large newspapers. Despite these important changes, there are no indications that daily newspapers attempted to experiment with typographical presentation, not even in order to present information in ways that would be more accessible to new readers.<sup>112</sup>



**Figure 5.6 – Double page illustration of the Crystal Palace, *Illustrated London News*, 1851**

There might be several reasons for this. First, newspapers were—for the people producing them—primarily business ventures; the aesthetic concerns of professional typographers ultimately had to give way to the financial concerns of editors seeking to maximize the quantity of information on each page. Furthermore, from the same ‘business perspective,’ continuity in visual appearance might provide a sense of

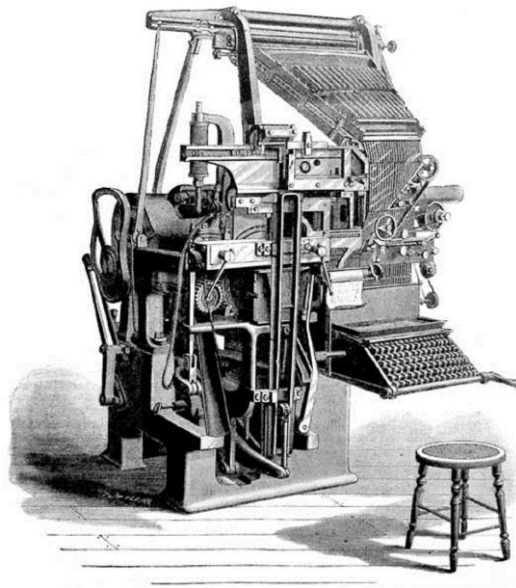
<sup>110</sup> Morison, *The English Newspaper*, 265–9.

<sup>111</sup> Hutt, *The Changing Newspaper*, 45–50.

<sup>112</sup> Brown, *Victorian News and Newspapers*, 29–30.



purchasing the ‘same’ product, even when its content changed on a daily basis, and thus help secure a dependable customer base.<sup>113</sup> However, a much more crucial reason was that the technological innovation described above was coupled with the promise of *daily* publication. This promise entailed—as it had since the early days of daily newspapers, as seen in chapter 3—that the printing office had to prepare as much content as possible on every page before news items were being received into the office. Hence, even with the technological advantages of rotary presses and so on, it was nevertheless still convenient for the typographer to first prepare the outer sheets of the paper (front and back pages, say, or pages 3 and 6, depending on the total number of pages) and then to fill these with whatever content he already had at hand. From around the 1780s, the pages first ‘filled’ by the typographer continued to be filled with large newspaper titles, editorials produced in the newspaper office, and a selection of regular advertisements. The grid-like form was already in place, and content of whatever quality might be fitted into it.



**Figure 5.7 – Linotype machine, 1890**

This might have changed in the 1880s, when American engineer Joseph Thorne successfully automatized the process of putting types *back* into their containers after use.<sup>114</sup> In 1886, Ottmar Mergenthaler’s Linotype machine (see figure 5.7) even combined casting, composing, justifying and distributing in a single apparatus. As

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<sup>113</sup> For an argument that regularity of appearance might help explain the successful spread of serialized novels from magazines to newspapers, see Margaret Beetham, “Towards a Theory of the Periodical as a Publishing Genre,” in *Investigating Victorian Journalism*, ed. Laurel Brake, Aled Jones, and Lionel Madden (Basingstoke: The MacMillan Press Ltd, 1990), 26.

<sup>114</sup> Clair, *A History of Printing in Britain*, 221–2.

McLuhan noted, in the 1890s the printed press was—in theory, in the British case—able to ‘adjust its form more fully to the news-gathering of the telegraph and the news-printing of the rotary presses.’<sup>115</sup> However, it took another twenty years before this actually began to happen. Even after the introduction of the Linotype, the more obvious ‘Americanization’ of the press towards the end of the century initially failed to challenge fundamentally the visual appearance of English newspapers.<sup>116</sup> In terms of literary style, the ‘New Journalism’ was indeed shifting away from ‘detached’ descriptions of events, emphasising instead personal and perhaps emotive topics, and employing a tone that was more straightforward than its ‘old’ counterpart<sup>117</sup> – ‘striking the reader between the eyes,’ as T.P. O’Connor put it in a much-quoted essay.<sup>118</sup> The new tabloids were physically smaller, and could indeed boast unprecedented circulation numbers.<sup>119</sup> Nevertheless, in terms of form the new tabloids did not stray particularly far from the received norm. Only at the turn of the twentieth century did a few of them begin to challenge the conventional grid-like layout adopted from the heyday of the *Times*.<sup>120</sup>

Largely, then, the peculiar grid-like visual form of Victorian daily news was the combined result of technological innovation and the promise of dailiness. By implication, dailiness was itself a promise of a more immediate access to on-going events, compared to weekly publications, for instance. Here, as Anderson pointed out, the date printed on each newspaper carried a particular importance.<sup>121</sup> The newspaper page opened up an empty secular interval enveloping all particular changes in equal measure, whilst itself remaining a neutral container. At the publication of the present issue, all of the referred changes would still be in transition, their outcome unknown.

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<sup>115</sup> McLuhan, *Understanding Media*, 222.

<sup>116</sup> Joel W. Wiener has traced some of the connections between British and American newspapers, showing that the term ‘Americanization’ is not inappropriate. Joel H. Wiener, “The Americanization of the British Press, 1830-1914,” *Studies in Newspaper and Periodical History* 2, no. 1-2 (1994): 61-74.

<sup>117</sup> Laurel Brake, “The Old Journalism and the New: Forms of Cultural Production in London in the 1880s,” in *Papers for the Millions: The New Journalism in Britain, 1850s to 1914*, ed. Joel H. Wiener, Global Perspectives in History and Politics (New York, Westport, and London: Greenwood Press, 1988), 1-24; Joel H. Wiener, “How New Was the New Journalism?,” in *Papers for the Millions: The New Journalism in Britain, 1850s to 1914*, ed. Joel H. Wiener, Global Perspectives in History and Politics (New York, Westport, and London: Greenwood Press, 1988), 47-71.

<sup>118</sup> T.P. O’Connor, “The New Journalism,” *The New Review* 1, no. 5 (1889): 434.

<sup>119</sup> By this time, the Daily Mail passed a daily circulation of 700,000 copies, a number that would only continue to grow in the following years. Hutt, *The Changing Newspaper*, 73.

<sup>120</sup> *Ibid.*, 61-87.

<sup>121</sup> Periodical publications were indeed the first commodities to have their own date of production or ‘sell-by’ stamped on them, and of course in the case of daily newspapers this was particularly important. Margaret Beetham, *A Magazine of Her Own?: Domesticity and Desire in the Woman’s Magazine, 1800-1914* (London and New York: Routledge, 1996), 10.

At the publication of the next issue, however, the same events would become static facts in the past; mere traces of completed processes, to be stored in archives or catalogues. In this sense, then, the date printed on the present newspaper was asymptotic; like the horizon, its boundary was in principle never transgressed by the events recounted on the pages – this only happened at the publication of the next issue. We might put it this way: the extent of the secular present embodied in periodicals – how ‘spacious’ it was, so to speak – depended on the frequency of publication. Thus, while monthlies could provide their readers the opportunity for reflection on events that had already acquired status as ‘facts,’ *daily* newspapers provided a more intense sense of contemporaneity and immediate experience.<sup>122</sup>

Hence, an intense pursuit of immediacy was at the centre of the production and distribution of daily news: only in so far as the reported events were contemporaneous with the reader might the reader become immediate to, and a partaker in, the referred public opinion and the reported events themselves. This point was also made at the time. As referred above, according to a comment on the state of the British press in *North British Review*, in 1860, [t]he superiority of the *Times* lies in the fidelity with which it utters British thoughts,—in the *immediateness* with which the nation speaks through it, as with its own voice.<sup>123</sup> The reader was however only immediate to public opinion insofar as the two shared a single empty interval of secular time. The century-long uniformity of the Victorian grid-like typographical newspaper design helped secure precisely such a moment of secular contemporaneity.

### *Telegraphic translations*

From the 1850s, the electric telegraph represented a formidable step towards the experience of immediacy, reinforcing the sense of contemporaneity already embodied in the newspaper’s typographical form. The speed of electric currents drastically shortened the temporal distance between events and their typographical representation at the other end of the line. Submarine Atlantic telegraph cables reduced the travel time of news items—bits of information—between New York and London from a week to a few hours: British businessmen could now receive information about American morning prices on the same day, rather than a week later (see figure 5.8).<sup>124</sup>

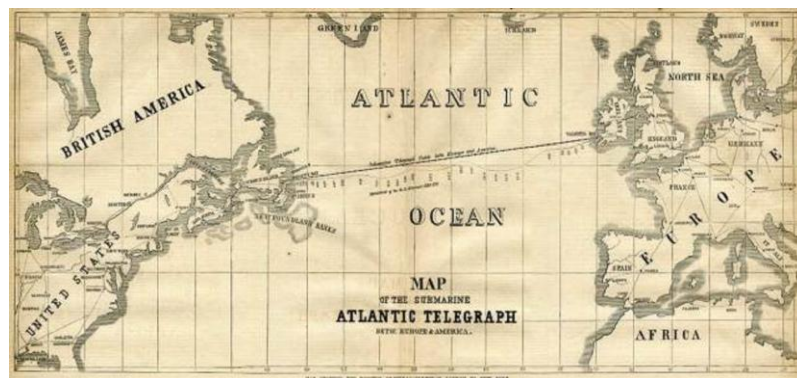
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<sup>122</sup> Mark Turner discusses some of these dynamics in Turner, “Periodical Time in the Nineteenth Century.”

<sup>123</sup> Anon., “The Political Press - French, British, and German,” 199.

<sup>124</sup> Read, *The Power of News*, 90–1.

The technologies of the telegraph system hence limited the extent of deterioration and change undergone by the news items during their transmission; they could be made immediate to the receiver. Put another way, representations of particular events might now appear in print before the readers' eyes after having been transmitted across large geographical distances, nevertheless remaining the same throughout their journey. Thus, the events and opinions referred to in print could be seen as fully corresponding to events and opinions in relatively distant locations, and so these as being immediate to the reader.

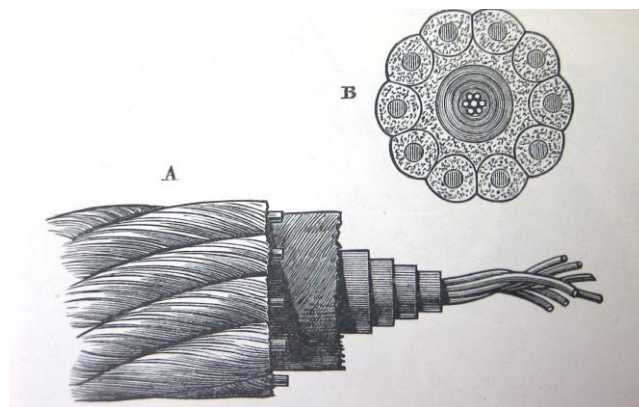


**Figure 5.8 – The transatlantic cable, 1865**

In this sense, the telegraph helped towards turning news items into immutable mobiles; these could now be moved without undergoing change. The system effectively evacuated the news items being transported from the realm of flux altogether. As noted in chapter 3, weather conditions had always been a factor to reckon with for news producers. Before the nineteenth century, the collection and distribution of news depended largely on changing seasons and the absence of accidents or other hold-ups along the route, whether over land or sea. Telegraphic technology, however, offered the possibility of translating news items into electric currents travelling at high speeds through metallic cables, hence making it possible (if not exactly easy) to isolate them from unforeseeable fluctuations or interruptions. The reader could hence be made immediate to the 'social' whole, so to speak; he or she could be given immediate access to current events and partake directly in the present movements in public opinion, since these could be transmitted over spatial distance—even on a global scale—entirely without friction or deterioration.

In material terms, what was at stake here was primarily the protection of telegraphic wires; making sure that these would not deteriorate (or at least to slow down this process). By the last third of the century, most countries in Europe operated on so-

called ‘mixed systems,’ where telegraphic wires were stretched both overhead and underground, depending on the area. Overhead wires could easily be set up along existing railway tracks or canals, and were also a cheaper option in urban areas than digging up the pavements. Furthermore, they required less insulation, which became more expensive the longer it was able to last before needing replacing. However, railway tracks or canals did not always exist where the cables were needed, and in crowded urban areas, overhead wires were still exposed to the shifting weather and hence might (and sometimes did) cause serious injuries if they were to fall down.<sup>125</sup> Hence, from the 1860s, existing overhead wires were gradually transferred underground. After a snowstorm in 1886 caused failure in much of London’s telegraph (and, by then, telephone) services, this process gained speed.<sup>126</sup>



**Figure 5.9 – Layers of gutta-percha insulating the transatlantic telegraph cable, 1866**

Underground, beneath the very feet of the public, cables were well insulated from the deteriorating effects of worldly forces. From the late 1850s, travelling electric signals were sheltered from potential interruptions by multiple layers of gutta-percha, a form of natural latex produced from the sap of *Isonandra gutta* trees in British Malaya (see figure 5.9). During the nineteenth century, this substance’s unique plasticity—its ability to be moulded and yet remain solid—made it a popular material in the production of a number of artefacts, ranging from golf balls to industrial belts. It was later discovered that it did in fact deteriorate somewhat if exposed to sunlight or oxygen, but this posed no problem for its use in subterranean or submarine telegraphic cables. News items could now be transmitted without transformation: they could be translated into galvanic currents, which could later be decoded and

<sup>125</sup> Beauchamp, *History of Telegraphy*, 90–1.

<sup>126</sup> Hansard, House of Commons Debates, 25th Jan., 1886, Vol. 302, pp. 307-308.

reconstructed back into printed accounts without (almost) anything being lost in the process.<sup>127</sup>

During the 1850s, insulated submarine cables were successfully laid between Dover in England and Calais in Northern France (1850), Portpatrick in Scotland and Donaghadee in Ireland (1853), and a number of other coastal localities (see figure 5.10).<sup>128</sup> After several failed attempts, a cable was laid across the Atlantic in 1865. By the end of the decade, Britain had several cables connecting it both to the Americas and to India, and British companies were central to the laying of telegraphic submarine cables across the globe.<sup>129</sup> The successful transmission of electronic signals over such vast distances required innumerable inventions and improvements, such as ‘loading’ the cable with iron filings to avoid signal distortion, or constructing more sensitive recorders (such as Thomson’s siphon recorder, patented 1867) able to detect a signal which still, inevitably, became progressively weaker as it travelled down the line.<sup>130</sup>



**Figure 5.10 – ‘Landing the cable at Porthcnew,’ *Illustrated London News*, 25 June, 1870**

In 1883, in order to further speed up the transmission process and make on-going events more immediately available to the reader, Reuters circulated a specific set of

<sup>127</sup> Obviously, the securing was immutability was—even on this specific level— much more complex than can be accounted for here. See e.g. Glen O’Hara, “New Histories of British Imperial Communication and the ‘Networked World’ of the 19th and Early 20th Centuries,” *History Compass* 8, no. 7 (2010): 609–625.

<sup>128</sup> Beauchamp, *History of Telegraphy*, 138–42.

<sup>129</sup> *Ibid.*, 162–78.

<sup>130</sup> *Ibid.*, 151–4. The sharing of technological knowledge was facilitated by the weekly journal *The Telegraph Journal*, founded in 1861 (*The Electrical Review* from 1899).

instructions to its agents. The circular described what kinds of events should be reported, and instructed the agents to telegraph ‘the bare facts’ with ‘utmost promptitude, and as soon as possible following this, a descriptive account, proportionate to the gravity of the incident. Care should, of course, be taken to follow the matter up.’<sup>131</sup> In other words, priority should be given to reporting the event itself; descriptive summaries and opinions about the event could come later. In numerous advice books to young journalists published at the turn of the century, authors would emphasise another micro-technique, this time human, which made possible the simultaneity of the daily news; namely, the journalist’s ability to write short-hand, since events must be reported immediately.<sup>132</sup> As the experienced journalist John Dawson put it in his book for aspiring newspaper employees, ‘[r]eporting is the very backbone of a newspaper, which, without it, would be nothing.’<sup>133</sup> Another writer called it having ‘a nose for news’—the required journalistic ability to spot an event which could later be elaborated upon.<sup>134</sup> W.T. Stead recalled Lord Salisbury’s proclamation that ‘the special correspondent was superseding the editor, chiefly because he was nearer to the things which people wish to see.’<sup>135</sup> Editor Stead saw it as the newspaper editor’s advantage over politicians that he gave his readers precisely such direct access.

A journalist is, or ought to be, a perpetual note of interrogation, which he affixes without ceremony to all sorts and conditions of men. No one is too exalted to be interviewed, no one too humble. From the king to the hangman – I have interviewed them both – they need no introduction to the sanctum, provided only that they speak of *facts at first hand bearing directly upon some topic of the day*.<sup>136</sup>

In short, nothing could be allowed to come between the reader and the event itself; reported events must be made to meet the newspaper reader directly on the page, and hence enable the reader to partake in their present unfolding. Reuters was promoted as

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<sup>131</sup> Quoted in Read, *The Power of News*, 100–1.

<sup>132</sup> See for instance John B. Mackie, *Modern Journalism: A Handbook of Instruction and Counsel for the Young Journalist* (London: Crosby Lockwood and Son, 1894); J. Henry Harris, *The Young Journalist: His Work and How To Learn It* (London: Guilnert Pitman, 1902); John Pendleton, *How To Succeed as a Journalist* (London: Grant Richards, 1902); Julian Ralph, *The Making of a Journalist* (London and New York: Harper & Brothers, 1903); W.T. Stead, “How to Become a Journalist,” in *A Journalist on Journalism*, ed. Edwin H. Stout (London: John Haddon & Co., 1892), 19–26; John Dawson, *Practical Journalism: How To Enter Thereon and Succeed: A Manual for Beginners and Amateurs* (London: L. Upcott Gill, 1885).

<sup>133</sup> Dawson, *Practical Journalism*, 11.

<sup>134</sup> Ralph, *The Making of a Journalist*, 14–25.

<sup>135</sup> Stead, “Government by Journalism,” 30.

<sup>136</sup> *Ibid.*, 50. Emphasis mine.

‘be[ing] first with the news,’ which we might see as an expression of the ideal news communication: to provide the recipient or reader immediate and simultaneous access to the event itself; to bring the news item to the reader without interference from anything in between the two – or ‘communication without noise’, in the parlance of ‘systems theory.’ This immediacy, this sense of partaking in events as they were occurring, allowed for so-called ‘running’ stories. Throughout the 1860s and 1870s, the accounts of Dr Livingstone’s dis- and re-appearances in Africa kept Victorian readers on the edges of their seats, as they followed fragments of his real-life story more or less in ‘real time.’<sup>137</sup> The same was the case with the adventures and exploits of other imperial ‘heroes’ or ‘villains’ (such as Jack the Ripper in 1888) throughout the latter half of the century.<sup>138</sup> Here, the reader and the events reported were made absolutely contemporaneous.

What Taylor terms the ‘direct access’ of the modern public sphere was hence an incredible human-technological feat.<sup>139</sup> As the reader’s eyes daily passed over the newspaper page, the entire process of mediation was presented as taking place without the transported object, the news item itself, manifesting any change. For centuries, the flight of news messages had been liable to disruption from weather or other unpredictable forces; the news had already been old when it arrived. For the Victorians, by contrast, news items were transmitted electronically through wires stretched overhead or hidden beneath urban pavements, thereby securing the news items’ independence from the world’s transformative effects. The entire process included numerous instances of translation. The actual event had to be translated into first-hand verbal accounts, which the reporter would modify so as to make their content more clear,<sup>140</sup> jotting down short-hand symbols on a note book. These symbols would be translated into Latin letters on a different sheet of paper, and handed to a telegraph clerk, who, using a particular apparatus, would translate them into codified patterns of sub-terrestrial electric currents that would travel through alloyed metal cables protected by layers of colonial rubber. These currents would be

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<sup>137</sup> Read, *The Power of News*, 91.

<sup>138</sup> See for example L. Perry Curtis, *Jack the Ripper and the London Press* (New Haven and London: Yale University Press, 2001).

<sup>139</sup> On modern society as one of “direct-access,” see Taylor, *A Secular Age*, 207–11.

<sup>140</sup> ‘The reporter should listen carefully so as to catch the sense of the speaker, for it is scarcely likely that if he does not himself understand the subject of discourse, newspaper readers will easily comprehend his “report.” A good reporter will frequently make a speaker’s meaning more clear to the readers of his paper than the speaker himself was able to make it to his hearers at the time of delivery.’ Dawson, *Practical Journalism*, 23. Emphasis in original.



turned into sound signals at the very moment of arrival at the desk of another telegraph clerk, who would translate the sounds back into ink letters on paper. These letters would then undergo series of re-organization, proof-readings, and cuttings depending on editors' preferred style, grammar, and printing limitations. The translated text would then (to put it shortly) be translated into marks on a stereotype plate, then further into ink letters printed on paper sheets which, when assembled properly, would become folded newspapers. During the night, these would be 'flung from the windows, or trundled along passages, or carried in huge bundles through the doorways into the street,'<sup>141</sup> where a horse cart would be ready to take them to the station in time for the morning post train. The train would carry them along the 'Newtonian road' of tracks to the provinces, where, unpacked and made ready for sale, the news might finally arrive in the hands of a reader. When the news items remained unchanged during their passage, it was in a sense as if this long chain of mediators was not there at all. However, much like the achievement of smooth railway travelling, the newspaper reader's equally frictionless 'direct access' to current events – or, indeed, the public's access to itself – was made possible only through the mobilization and hard work of a range of mediators: secular immediacy was achieved through technological mediation.

#### THE NEXT AND THE NEW

'An English newspaper is certainly a marvellous production,' declared legal scholar Hommersham Cox in the 1850s, beautifully capturing the complexity of the process.

The immense amount of intelligence which issues every morning from the press has, for the most part, been collected from innumerable sources in all parts of the kingdom but a few hours before. From the senate, the forum, and the mart, from the highways of commerce by sea and land, from the thronged streets and crowded ports, from every great haunt of men, every seat of political events throughout the globe, and by the most refined mechanical means, the information of the daily sheet has to be collected. How many agencies, political, material, and intellectual, are at work to produce it! and every one of them is a condition essential to its production. An English newspaper is an example of the combined effect of free institutions; for were not the national institutions free, free criticism, the very life of the press, would be impracticable; - of immense energy; for the powers, mental and mechanical, which are at work the livelong night to produce the morning newspaper, are taxed to their utmost; - of division of labour; for unless the labours of reporting, editing, and printing, were divided according to a system, carried, apparently, to the pitch of

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<sup>141</sup> Pendleton, *How To Succeed as a Journalist*, 17.

perfection, the most vigorous energy, and the most robust powers of endurance, would be inadequate to the accomplishment of the required task; - of the resources of vast capital; for every part of the civilized world the news is collected, digested, and recorded; - of extensive learning; for nearly every branch of history, law, political economy, literature, æsthetics, ethnology, statistical lore, and constitutional and moral philosophy, is laid under contribution; - of mechanical genius, for the most subtle contrivances are necessary, in order to effect the printing with sufficient rapidity; - and, lastly, an insatiable public appetite for political knowledge; for it is this universal demand which alone sustains the exertion of those energies by which a newspaper is produced.<sup>142</sup>

The cited passage exemplifies how the Victorian news network's mediation of both secular and historical time spurred temporal paradoxes. The whole network amassed news items, reported events from 'throughout the globe,' and presented these on newspaper pages embodying a secular interval independent of its content. At the same time, however, the network embodied the distinct quality of the historical present. Each newspaper was, as Cox pointed out, inextricably bound to, even dependent upon, a long chain of mediators, all characteristic of the present age: political philosophies, financial means, mechanical engineering, modes of work organization, and the peculiar modern 'appetite' for news. Hence, each newspaper was a material combination of all the characteristic features of England's historical stage of civilization – a single manifestation of all its 'civilized' aspects. Indeed, the newspaper's ability to mediate secular time was precisely what made it a materialization of the historical quality of the present; and the grasping of the 'public' as a single entity endowed with particular historical qualities was made possible by the newspaper's embodying a secular and 'empty' interval.

Contra Taylor, then, the temporal logic of the public sphere should in no way be described as 'purely secular.' As Margaret Beetham has argued, the fundamental temporal structure of periodicity on which the public sphere is premised is contradictory, embedding at once notions of repetition *and* difference.<sup>143</sup> In temporal terms, we might say that the periodical form of Victorian newspapers embodied a joint articulation of the 'next' and the 'new.'<sup>144</sup> The 'next' spoke of secular time. Each present issue was a number in a homogenous series, distinguished from other issues in

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<sup>142</sup> Cox, *The British Commonwealth*, 238–40.

<sup>143</sup> Beetham, "Towards a Theory of the Periodical as a Publishing Genre." An earlier version of this chapter can be found in Margaret Beetham, "Open and Closed: The Periodical as a Publishing Genre," *Victorian Periodicals Review* 22, no. 3 (1989): 96–100.

<sup>144</sup> See also discussion in James Mussell, *Science, Time and Space in the Late Nineteenth-Century Periodical Press: Movable Types*, The Nineteenth Century (Aldershot: Ashgate Publishing Limited, 2007), 151.

quantitative terms. The next issue of the *Daily News*, for instance, was in this sense merely another instance of the very same newspaper. By contrast, the ‘new’ bespoke a time of qualitative change. The notion of the ‘new’ emphasised the qualitatively difference implied and instituted by the events making up the news network—the event that was to become ‘news,’ the event of amassing such ‘news items,’ the event of publication, the event of reading, and so on—all carrying a notion of unprecedented qualities being manifest in particular instances. In this sense, every newspaper issue marked in its very publication a qualitative difference between the past and the present: the present issue of *Daily News*, on the one hand a mere number in a homogenous series, was equally the manifestation of a qualitative and yet-to-be-completed transition from a known past to an unknown future.

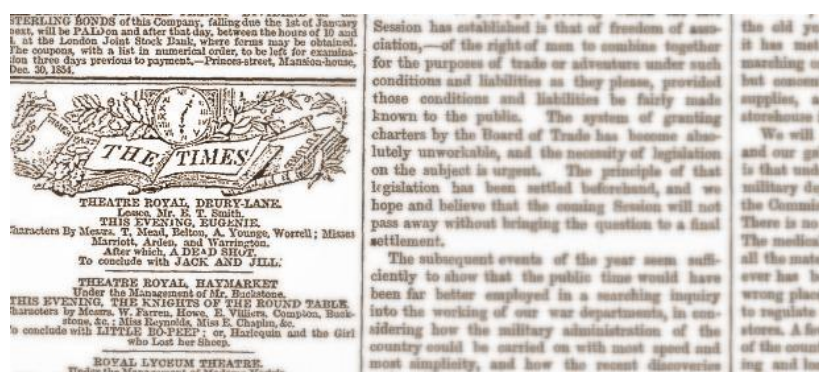


Figure 5.11 – The 1855 version of the headpiece<sup>145</sup>

A symbol still familiar to many English newspaper readers visualizes this temporal paradox. On January 2, 1804, there appeared in *The Times* (over the theatre bills and editorial) a headpiece which would remain the newspaper’s ‘personality and ... authority’ for two centuries and more (see figure 5.11).<sup>146</sup> The dial of a clock is pictured above three books lying next to each other, framed by oak leaves on the left side, and by leaves of mistletoe on the right. The book to the right is closed, the word ‘FUTURE’ written on its cover. The book to the left lies open, bearing the title ‘TIMES PAST.’ The central book also lies open, with the title of the newspaper itself, ‘THE TIMES,’ written across its pages. The two open books differ in that the one lying on the left hand side, entitled ‘TIMES PAST,’ is bound and completed, whereas the one lying in the centre, entitled ‘THE TIMES,’ contains a sheet which, in some

<sup>145</sup> The exact time displayed was altered on several occasions since 1804, as were details such as using Arabic or Roman numbers on the dial. In 1845, a scythe was included on the right side. The scythe has traditionally symbolized both impermanence and cyclical renewal. In Christian symbolism, however, it is also associated with Judgment Day and the end of time.

<sup>146</sup> Morison, *The English Newspaper*, 208.

versions of the headpiece, appears to still be on its way into the open book; its left page has not been folded all the way down, and the right page is about to be turned. While the past, then, is a closed book, immobile and static, the present moment is transitional, as indicated by the on-going turning of the page. The frame of foliage underlines the symbolic movement from past to future. Out of the ancient English oak emerges the evergreen mistletoe, a symbol of regeneration and vitality. These elements of the symbol all suggest a qualitative difference between past and future, and emphasize the present as the very transition between the two – a transition embodied in the newspaper itself. However, the clock dial at the centre of the headpiece signals a very different conception of time. Originally it showed the time 6.06 pm, which was the average point of publishing. One function of this display – together with an accompanying statement of the exact time of publishing printed underneath it – was to ensure that newspaper vendors were not persuaded to replace the *Times* with competing newspapers in the morning, under the mistaken assumption that it had not yet been published. But juxtaposed to the other elements of the headpiece, the clock dial stands in stark contrast to the qualitative transition suggested by these: it speaks of moments distinguished quantitatively, in a series of accurately measured intervals.

The typographical representation of this temporal dialectic was by no means limited to the *Times*' headpiece. Most newspapers framed the unruly current of passing events within title headings printed in neo-medieval blackletter types, suggesting a national 'rootedness' and stability through the ages, and securing a stable mental vantage point from which the reader might observe the unfolding of present history.<sup>147</sup> At the same time, daily newspapers were made for immediate disposal after use, thus manifesting in their very physical make-up their own fleeting and temporary nature. Readers of newspapers 'hot from the press' tended to tolerate the occasional smudges of ink smeared across the pages, for instance, even though this would have been considered unacceptable had it occurred in a book. For all the timeless gravitas lent by its 'ancient and elemental' title fonts, the swift current of news allowed the ink no time to dry.<sup>148</sup>

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<sup>147</sup> Stanley Morison, *"Black-letter" Text* (Cambridge: Cambridge University Press, 1942), 30. See also Peter Bain and Paul Shaw, *Blackletter: Type and National Identity* (Princeton: Princeton Architectural Press, 1998).

<sup>148</sup> Robin Kinross, *Modern Typography: An Essay in Critical History* (London: Hyphen Press, 1992), 28–9.

Much more crucially, however, the temporal paradox was carried in the logic of periodicity and so encountered by every news consumer. Each newspaper page offered access to the ‘present’ in a double sense, so to speak: it embodied at once an empty interval enveloping the various events and opinions referred within it; *and* a historical moment of qualitative transition between past, present and future. Put another way, it provided at once a secular interval in which to observe—in a detached manner—a unified and contemporaneous public opinion undergoing transformation, *and* a means by which to participate immediately in that very transformation. As the *North British Review* article cited above put it,

[T]he *public* is that portion of the universal life of which each of our own selves forms an element; but it is also that great stream of external vitality, by throwing one’s self into which, almost entirely, each one of us gets additional strength. Unless in exceptional cases, we care little for the particular opinion,— we care only for the collective impression; our object is not to be influenced or led, it is to discover our own true thought.<sup>149</sup>

The reader observes the fluctuations of public opinion represented on the newspaper page in order to discover him or herself. By implication, every newspaper reader was at once a detached observer *and* an integrant element of public opinion’s ever-shifting current.

Although every reading participant in the news network encountered this paradox, two distinct types—the statesman and the journalist—were particularly exposed. For both of these, the temporal paradox played out in ways which recall the problematic of ‘uneven development’ described in chapter 2. For the statesman, the question was: what happens when the present expression of public opinion is, in terms of its historical development, ‘behind’ the proposed policies of the government it ultimately underpins? This put the political leader in a strange situation: his role in relation to public opinion was to be at once a follower and a guide. Lord Palmerston encountered this problem in a speech during a Commons debate in 1829. Palmerston referred to ‘the people’ as the ultimate basis for political legitimacy, and distinguished between ‘two great parties’ in European politics: one heeding public opinion, the other seeking to govern it by force. Just as the rational mind was the animating principle of the individual body, he stated, so public opinion was the vital power of ‘political affairs ... and he who can grasp this power, with it will subdue the fleshly arm of physical

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<sup>149</sup> Anon., “The Political Press - French, British, and German,” 184–5.

strength, and compel it to work out its purpose.’ In a revealing section of his speech, he mused on the relation between public opinion and the liberal statesman, analogously comparing the former to the winds and waves of the sea and the latter to the captain of a ship.

Look at one of those floating fortresses, which bear to the farthest regions of the globe, the prowess and the glory of England; see a puny insect at the helm, commanding the winds of heaven, and the waves of the ocean, and enslaving even the laws of nature, as if instead of being ordained to hold the universe together, they had only been established for his particular occasion. And yet the merest breath of those winds which he has yoked to his service, the merest drop of that fathomless abyss which he has made into his footstool, would, if ignorantly encountered, be more than enough for his destruction; but the powers of his mind have triumphed over the forces of things, and the subjugated elements are become his obedient vassals. And so also is it, with the political affairs of empires; and those statesmen who know how to avail themselves of the passions and the interests, and the opinions of mankind, are able to gain an ascendancy, and to exercise a sway over human affairs, far out of all proportion greater than belong to the power and resources of the state over which they preside; while those, on the other hand, who seek to check improvement, to cherish abuses, to crush opinions, and to prohibit the human race from thinking, whatever may be the apparent power which they wield, will find their weapon snap short in their hand, when most they need its protection.<sup>150</sup>

Public opinion was a mighty force whose power, complexity, and constant fluctuation rendered it stronger than—indeed, ‘far out of proportion to’—any stately attempt to subdue and master it. And yet, for Palmerston, just like the captain on a ship steering his comparatively small vessel through a storm, the statesman might harness the power of public opinion for his benefit; in so far as he knew public opinion, he could steer it, even whilst relying on it.

In 1829, public opinion was becoming—for Palmerston and for many others—the benchmark of political legitimacy, and the statesman could only harness its force on the basis of an adequate knowledge of its current state. But how could knowledge of this sort be acquired? A Whig commentator writing for the *Edinburgh Review* in 1840 saw it as ‘a great part of the sagacity of a statesman to discern from a distance what is to be durable, from that which will pass away.’ In a striking passage, the author argued that the practice of ‘Open Questions’ in Parliament gave statesmen that direct access to the present condition of public opinion which their vocation required.

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<sup>150</sup> Quoted in Hilton, *A Mad, Bad, and Dangerous People*, 317–18.

Open Questions, debated as such in Parliament, are among the best means for multiplying the *data* for bold conclusions, and for accelerating the natural formation of the new events and reasonings, which, in stirring times, are thrown so abundantly into the great bubbling cauldron of the public mind. It would be easy to find striking instances of the evils of too protracted an unconsciousness of the course of public opinion, on the one hand, and of too precipitate a following of its transient indications, on the other. The former used to be the besetting sin of Governments – the latter may be more threatening at the present – though probably not, if we have wise men to read the signs of the times... [T]here should be Open Questions for this purpose, agitation or discussion, (call it which you will,) and in order to collect, at large and at leisure, authentic materials for proceeding to legislation, *the moment that the public and the subject are both ready for it.*<sup>151</sup>

This implied that public opinion as at once a totalized and synchronous whole available to observed ‘from a distance,’ and—precisely in that it was a totalized whole—endowed with particular qualities that were constantly changing. The practice of ‘Open Questions’ created an ‘empty’ space in which the abundant ‘events and reasonings’ of present public opinion could be evacuated from its ‘great bubbling cauldron’ and accurately gauged. Nevertheless, the author argued, public opinion was still moving and changing even while its present state was being defined – when its present condition was decided, it had already moved on. The statesman’s task was hence to ‘read the signs of the times;’ that is, discern public opinion’s cotemporaneous state, *and* predict what it might change into in the future. Put another way, he had to assess the present state of public opinion, while also being ‘ahead’ of it, in order to discern when time was ripe for implementing new policies – ‘the moment that the public ... [was] ready for it.’

The statesman’s proposals for policy change might hence be asynchronous with the fluctuations of public opinion, even though the legitimacy of the former supposedly rested on the latter. William E. Gladstone—then in the process of being elected Prime Minister—wrestled with precisely this paradox in his 1868 pamphlet *A Chapter of Autobiography*. Discussing the circumstances that had led him to leave the Conservative Party in the 1840s, Gladstone referred to what he called ‘silent changes ... advancing in the very bed and basis of modern society.’<sup>152</sup> These subterranean

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<sup>151</sup> Anon., “Art. VI - Speech of the Right Honourable Sir Robert Peel, Bart., in the House of Commons, on Sir J. Yarde Buller’s Motion on Want of Confidence in the Government. 8vo. London: 1840.” *The Edinburgh Review, or Critical Journal* 71, no. 144 (1840): 513–14. Emphasis mine.

<sup>152</sup> Quoted in Hilton, *A Mad, Bad, and Dangerous People*, 317–18. See also W.E. Gladstone, *A Chapter of Autobiography* (London: John Murray, 1868), 7.

movements were nothing less, he argued, than a historical shift from an ancient principle of political legitimacy to another – the very evolution of public opinion.

If we have witnessed in the last forty years, beginning with the epoch of Roman Catholic Emancipation, a great increase in the changes of party, or of opinion, among prominent men, we are not at once to leap to the conclusion that public character, as a rule, has been either less upright, or even less vigorous. The explanation is rather to be found in this, that the public mind has been of a nature entirely transcending former experience; and that it has likewise been more promptly and more effectively represented, than at any earlier period, in the action of the Government and the Legislature.<sup>153</sup>

It was, in other words, not so much that Gladstone and his fellow politicians had changed their minds, as that public opinion, that ‘very bed and basis of modern society,’ had itself mutated into a form ‘entirely transcending former experience;’ it was merely a matter of keeping up with the times, so to speak. Gladstone admitted that the politicians of the 1840s might lack the impressive consistency of opinion exhibited by their forebears (who would not have dreamt of shifting party), but this was only because circumstances were so different. ‘The gradual transfer of political power from groups and limited classes to the community, and the constant seething of the public mind, in fermentation upon a vast mass of moral and social, as well as merely political, interests,’ he argued, had changed the basic conditions of political action to such a degree that a modern statesman would need a supernatural ‘enlargement’ of his foresight if he were to predict the consequences of all his policies.<sup>154</sup> Hence, it had been impossible for the statesmen of the 1840s to discern the direction of their contemporary public opinion’s historical trajectory. The future was simply too different from the present.

For Gladstone, this evolution of public opinion was manifest in actual events both recent and ancient – changes in the governance of Anglican and Non-Conformist churches, for instance, and the changing relation between ecclesiastical and political authority since the Reformation, Charlemagne, or even Constantine. Modern political institutions were, he argued, material manifestations, the ‘outward vesture,’ of the evolving agency of the public. Therefore, while political leaders must, as before, ‘take honour and duty for their guides, and not the mere demand of the passing hour,’ the

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<sup>153</sup> H. C. G. Matthew, *Gladstone 1809-1898* (Oxford: Clarendon Press, 1997), 144.

<sup>154</sup> *Ibid.*, 12.



nation's progressive transition from a 'stationary to a progressive period' nonetheless necessitated corresponding changes in the policies that were now to represent and express the wishes of 'the people.'

[H]onour and duty themselves require their loyal servant [the statesman] to take account of the state of facts in which he is to work, and, while ever labouring to elevate the standard of opinion and action around him, to remember that his business is not to construct, with self-chosen materials, an Utopia or a Republic of Plato, but to conduct a living and working community of men, who have self-government recognised as in the last resort the moving spring of their political life, and of the institutions which are its outward vesture.<sup>155</sup>

The evolution of public opinion required changes in policy. Yet at the same time, political change required an active mobilization of public opinion. The statesman was on the one hand to observe the movements of public opinion so as to implement in practice its ceaselessly changing character; and yet, on the other, he also had to mobilize that very public opinion in order to achieve his own proposed policy changes. He was either 'behind' or ahead,' so to speak.

How then should the statesman respond to this asynchrony? Public opinion was, Gladstone admitted, to a large extent unable to grasp its own development; it might not realize what it actually wanted. '[T]he public mind is to a great degree unconscious of its own progression, and it would resent and repudiate, if offered to its immature judgement, the very policy, which after a while it will gravely consider, and after another while enthusiastically embrace.'<sup>156</sup> The eventual disestablishment of the Irish Church, for instance, was—so he argued—the manifestation of an evolving force which during the 1840s had been 'biding its time' until its 'season for action had come.' The policy could be implemented only when its time had come, so to speak. In this way, any difference between public opinion and the statesman's policy proposals could be cast as a difference between the historical qualities they manifested: if the two manifested different qualities, then—in terms of historical time—they were not manifesting the same moment. One of them could then be relocated to a different interval on the abstract secular timescale as well; the contemporary manifestation of public opinion could be cast as belonging to an 'earlier' moment (it being 'backwards' compared to the present historical moment), or the statesman's policy

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<sup>155</sup> Ibid., 11–12.

<sup>156</sup> Ibid., 12.

proposal could be cast as belonging to a ‘later’ moment on the same timeline (so that its articulation in the present was ‘premature’ or ‘before its time’). It was the latter mental act that enabled Gladstone to say that public opinion would eventually arrive at the policy makers’ view, and ‘gravely consider’ or later even ‘enthusiastically embrace’ the same proposals it at present would only ‘resent and repudiate.’<sup>157</sup> Until the statesman and public opinion regained synchronicity, then, ‘premature’ policy proposals would simply have to ‘bide their time.’

The statesman was required to at once assess and embody public opinion; the same was true of the journalist. Since, as we have seen, public opinion was seen as made manifest in the periodical press, those involved in its production would inevitably find themselves in a paradoxical position: were they instructing or representing, leading or following? Put another way, were journalists contemporaneous with, ahead of, or behind public opinion? For some, especially in the early century, the answer was that the journalist was the guide of the public. In 1835, a writer in the weekly journal *Athenaeum* described the journalistic task in the following manner:

It is all very well as a mere declamatory theme to talk about the influence of the press; but though to a certain extent a journalist may and ought to lead public opinion, he must always be especially cautious not to go so far a head as to be out of sight of his followers.<sup>158</sup>

Because journals were dependent on keeping their readerships, the article continued, ‘[their] tone, temper and character ... must ... reflect the tone temper and character of the readers.’ Put another way, a journalist must *appear* to keep pace with the historical development of the public, but in reality be ‘ahead’ of it.

Others saw the journalist being entirely synchronous with public opinion, simply expressing its opinion at any moment. ‘Journalism is public opinion embodied in the periodical press,’ declared *Chambers’s Edinburgh Journal* in a review of one of the first books to attempt a history of the British press and analyse its impact: historian F.K. Hunt’s *The Fourth Estate* (1850).

A journal does not, in the common phrase, address a certain class of readers; it is the voice of these readers themselves. It is the expression of an idea previously existing in their minds, or the supply of a thing for which

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<sup>157</sup> Ibid.

<sup>158</sup> Anon., “Our Library Table,” *The Athenaeum* 404 (July 25, 1835): 568.

their souls even unconsciously thirsted ... No journalist is in the strict sense of the word original – if he were so he would be alone: he is merely the mouthpiece, the agent, the representative of his readers, and he employs his energies in collecting the peculiar aliment which their taste demands, and which their intellectual constitutions are capable assimilating. These are facts which journalists know practically – instinctively; and it has often been said that the greatest of all our existing newspapers owes its success to the unwearied care with which it watches the changing tide of public opinion, so as to appear to direct that mighty current on which it only floats.<sup>159</sup>

In the reviewed book, Hunt himself had this to say about the journalist:

[T]he man who becomes a journalist must almost bid farewell to mental rest or mental leisure. If he fulfils his duties truthfully, his attention must be ever awake to what is passing in the world, and his whole mind must be devoted to the instant examination, and discussion, and record of current events ... What he has to deal with must be taken up at a moment's notice, be examined, tested, and dismissed at once, and thus his mind is kept ever occupied with the mental necessity of the world's passing hour.<sup>160</sup>

The reviewer lauded Hunt's work, declaring that since journalism was 'a perpetual reflection of the sentiments and intellect of the nation, and a gauge by which we may measure both its advance and its shortcomings ... [t]o write its history ... is to trace the progress of civilisation, and to prophesy of the future of mankind.'<sup>161</sup> The writing journalist was contemporaneous with public opinion to the extent that, for the historian, the public opinion of past ages was immediately available in the respective age's contemporary journals and newspapers.

This expectation for immediacy demanded peculiar skills on the part of journalists. An anonymous writer in *Cornhill Magazine* put it thus in 1862: '[t]he specific distinguishing faculty, in virtue of which men become first-rate journalists ... is the power of filling the mind rapidly and almost unconsciously with the floating opinions of the day, throwing these opinions into a precise, connected and attractive form.'<sup>162</sup> This skill was not limited to political journalists only. '[E]ven satirical writers,' declared one commentator in the *Saturday Review* in 1869, could be 'useful indexes and echoes of their times.' However, the writer admitted, the (political) journalist was a more serious representer of the public, his task requiring exceptional vigilance and

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<sup>159</sup> Anon. "Philosophy of Journalism," *Chambers's Edinburgh Journal* 13, no. 339, New Series (June 29, 1850): 406.

<sup>160</sup> Hunt, *The Fourth Estate*, 4–5.

<sup>161</sup> "Philosophy of Journalism," 406.

<sup>162</sup> Anon., "Journalism," 56.

clarity of thought. ‘To carry a note-book continually, and to put down in it all the owner sees, hears, or thinks at the moment, constitutes the perfect journalist.’<sup>163</sup> A journalist, then, was to follow the changing tides of public opinion so closely—by mere ‘instinct’ rather than detached and reflective thought—that what was printed in the newspaper would be an instant image of current public opinion.

Others, again, argued that public opinion was in fact ahead of the journalist. As one writer put it, insofar as journalists were ‘the servants of the public ... the course which they take [should always be] determined by the public.’<sup>164</sup> In his *Topics for Indian Statesmen*, legal scholar John Bruce Norton advised aspiring leaders in the colony to view the journalists they encountered through their vocation in the following manner:

The journalist, though he affects to lead public opinion, in point of fact, follows in its wake; and the most successful journal [sic] is that which [succeeds] in the delicate art of trimming at the right moment; which discerns the first wavering of the fickle *popularis aurce* and shapes his course so dexterously as to seem to be moved by his own independent volition instead of being, in fact, impelled by every external influence.<sup>165</sup>

The journalist was simply doing what the public demanded at any time. For critical observers, however, such views were misconceived at best, if not misleading: journalists in fact seemed to lead, not embody or follow, public opinion. While the early century had seen the journalist as a legitimate guide, after mid-century this role was increasingly problematized. In 1870, a writer in *Cornhill Magazine*, naming himself simply ‘A Cynic’ wrote a scathing critique of the press—or more precisely, its editors—arguing that newspaper editors and journalists influenced contemporary politics as much as did politicians, but with less accountability. While the statesman appeared as a ‘framer of public opinion’ (‘public opinion is supposed to have bowed to him, not he to public opinion’), the press was in a different situation altogether:

[T]he press boasts that it is the embodiment of public opinion ... That vague authority which it claims to represent is always present in the immediate background and keeps a very firm hand upon its vagaries. In short, we know very well that at best it is the work of a few clever men a

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<sup>163</sup> Anon., “Reviews: Reliquie Hearnianæ,” *The Saturday Review of Politics, Literature, Science, and Art* 27, no. 689 (January 9, 1869): 52.

<sup>164</sup> Anon., “Journalism,” 53.

<sup>165</sup> John Bruce Norton, *Topics for Indian Statesmen*, ed. G.R. Norton (London: Richardson Brothers, 1858), 342.

little in advance, it may be, of the general current of opinion but compelled by the necessity of their position not to be too far in advance.<sup>166</sup>

The author admitted that journalists and editors were ‘a little in advance’ of current public opinion, but argued that they pretended otherwise. Their sin was that they were holding back, as it were, making it appear as if they were not leading but merely embodying public opinion at any moment.

Journalists, then, found themselves caught in a temporal paradox akin to that of the statesman: their task was to assess and express in print a public opinion that only manifested itself in pages which had already been printed, possibly by the very same journalist. As one writer put it in 1875, ‘[i]t is the business of the journalist ... both to swim with the tide [of public opinion], and *at the same time* to head it by a few inches.’<sup>167</sup> Journalists were to articulate public opinion *before* it could be printed and publicised; yet this very same publication could only express what was *presently* public opinion. In order to express public opinion as it *presently* was, then, the journalist was required to predict the state of public opinion in a (future) present that had yet to arrive. In a way, one could imagine the journalist travelling in a fast lane, and public opinion only catching up with him (or later her) at the very moment of publication, when the two would again be synchronous.

Just this image was used in a 1918 pamphlet introducing women to the prospects of a journalistic career: ‘[as the] voice of the multitude ... the journalist must have the capacity of thinking ahead of ninety-nine out of every hundred readers, and while supposed to guide them, the journalist is only voicing what men or women are thinking at the moment.’<sup>168</sup> Obviously, this demand for immediacy put much pressure on journalists, about which the author of the pamphlet warned too-eager journalism enthusiasts.

[O]n a daily paper [the journalists] have to write their story and see that it gets to the office the same day, no matter how late the hour, to ensure inclusion in next day’s news columns. Sometimes press days on weeklies necessitate just as rapid work, for no society of charity function which a good journalist could include in a weekly “just going to press” would be

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<sup>166</sup> A Cynic, “Our Rulers - Public Opinion,” *The Cornhill Magazine* 21 (1870): 293.

<sup>167</sup> T.H.S. Escott, “English Journalism in 1832 and 1874: A Criticism and a Contrast,” *Belgravia: a London Magazine* 8 (1876): 39–49. Emphasis mine.

<sup>168</sup> R.D. Blumenfeld, *What Is a Journalist?: Do’s and Don’ts*, vol. 5 (London: World’s Press News, 1930), 20–1.

anything but stale a week later. The hours of work must be irregular, but the true journalist never grumbles at that.<sup>169</sup>

As seen above, a complex process of translation in a many-linked chain of mediators inevitably preceded the moment of publication. This complex process of production entailed that whatever ‘men and women [were] thinking at the moment’ would only be expressed in print the following day. The public opinion observed by the journalist was already past and gone when eventually expressed in print. Due to the inevitable delay between event and representation, then, public opinion appeared constantly asynchronous with itself.

The missions of the statesman and the professional journalist remained contradictory: to reflect or embody a contemporary public opinion already in existence and available to scrutiny, and to ‘be ahead,’ and thereby bring the same public opinion into existence. They were at once to scrutinize a public opinion immediately available to them in the newspapers—which required a conception of secular time in which the public could be grasped as a contemporaneous and totalized whole—and to embody in their own action the very qualities which they discerned in public opinion conceived as a ‘great stream of vitality;’ an unpredictable historical current.

## CONCLUSION

As described in chapter 3, fourteenth-century scholastic thinkers defined secularity as a time enveloping *immutable mobiles* – angelic messengers travelling without transformation, bringing tidings to men. In nineteenth-century England, the very same conception of secular time was embodied in the material form of daily newspapers – indeed, sometimes bearing the names of the angelic *heralds* and *mercuries*. Rather than angels, it was now news messages—or simply, bits of information—that travelled vast distances without undergoing change. An entire network of telegraph cables, printing machinery, and ‘diligent hands of many writers,’<sup>170</sup> was mobilized in order to make news items function as immutable mobiles, and hence make them cotemporaneous with the reader – that is, to locate the reported events and the reader within the same secular interval. The combination of technological innovation with the promise of daily publication consolidated the grid-like appearance of the

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<sup>169</sup> A. Sphinx, *Journalism as a Career for Women* (London: George Newnes Ltd, 1918), 9.

<sup>170</sup> Mackie, *Modern Journalism*, 112.

newspaper page, making it embody an interval independent of its changing content. Thus, the reader, the reported events, and indeed the news network itself could be conceived of as a singular 'national' whole, centred on simultaneous and immediate experience of current events. In this sense, the Victorian news network achieved an implicit 'nationalization' several decades before the First World War homogenized the newspapers' subject matter.

And yet, in this very achievement, there arose a temporal paradox. The establishment of a secular present which made public opinion available for detached observation, thereby also allowed it to be conceived of as a distinct phenomenon possessing particular historical properties, as manifest in particular events and material movements – indeed, in the news network itself. Readers (including journalists and statesmen, as we have seen) were thus not only cotemporaneous with, but fully embedded in the multiple movements and changes that made up present 'society.' The immediacy achieved in terms of secular time hence also implied the reader's integration in a transitional historical present, where his or her response (or even lack of such) might make a difference for the future. The temporal dimension of the Victorian public sphere was thus not exclusively secular in the way Taylor argues. Although it embedded a concept of secular time, its technological performance equally carried notions of historical time, unpredictable development, transition, and qualitative evolution – it was founded on a temporal dialectic. The next chapter examines how this was equally the case with another of Taylor's examples of a modern social imaginary, namely the 'economy,' which during the nineteenth century came to be imagined as an autonomous sphere encompassing and integrating the entire 'nation.'

## 6. AS GOOD AS GOLD

### Networks, banknotes, and the national economy

In the nineteenth century, the economy came into its own. The early decades of the Victorian period saw emerging discourses of political economy dealing with topics ranging from factory production and Corn Laws to principles of free trade and monetary policy. As Timothy Alborn has argued, most of the publications in this genre prior to the 1870s were composed according to the template provided by David Ricardo's *Principles of Political Economy* (1817): an opening discussion of labour as the basis of value, rent, prices, wages, profit, taxes, trade, and finally a discussion of money as a means for making universal exchange feasible and practicable.<sup>1</sup> Reaching its apogee in John Stuart Mills' two-volume *Principles of Political Economy* (1848), the genre provided, in the words of one assessment, 'the most prestigious and highly developed vocabulary for the discussion of a very large set of political issues.'<sup>2</sup>

Dozens of treatises purporting to define and establish its fundamental principles were published between 1820 and 1850. In 1843, James Wilson established the periodical *The Economist*, which combined financial news journalism with economic analysis.

By the 1860s and 70s, political economy had become one of the main genres in which Victorian intellectuals could express their view of the current condition of England and the surrounding world. However, just as its 'wisdom [was settling] down into the common sense of the nation,'<sup>3</sup> as Bagehot put it in 1876, a new genre of 'economics' began to emerge as a science dealing with fundamental and universal principles.<sup>4</sup> In his pioneering work *The Theory of Political Economy* (1871), logician William Stanley Jevons sought to combine mathematical (deductive) and statistical (inductive) methods in order to establish the principles underlying the economy (preferably without the term 'political'), laying the basis for what later became known as the

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<sup>1</sup> Timothy Alborn, "Economics and Business," in *The Cambridge Companion to Victorian Culture*, ed. Francis O'Gorman (Cambridge: Cambridge University Press, 2010), 70–1.

<sup>2</sup> Stefan Collini, Donald Winch, and John Burrow, *That Noble Science of Politics: A Study in Nineteenth-Century Intellectual History* (Cambridge et al.: Cambridge University Press, 1983), 311.

<sup>3</sup> Walter Bagehot, *The Postulates of English Political Economy* (London: Longmans, Green & Co., 1885), 1 (First published in 1876).

<sup>4</sup> See Mary S. Morgan, *The History of Econometric Ideas*, Historical Perspectives on Modern Economics (Cambridge et al.: Cambridge University Press, 1990). For pre-1800 developments anticipating this characteristic nineteenth-century development, see Deborah A. Redman, *The Rise of Political Economy as a Science: Methodology and the Classical Economics* (Cambridge, MA. and London: The MIT Press, 1997).



‘marginalist revolution.’<sup>5</sup> For Jevons, the notion of value was not based on the cost of production, but on the proportionality of prices to utility. Put another way, value was not based on labour, but rather on ‘fundamental laws’ governing the desires and wants of the consumer—ultimately his or her rational anticipation of pleasure and pain—and could hence be calculated mathematically.<sup>6</sup> With Alfred Marshall’s *The Principles of Economics* (1890), so scholars suggest, the ‘economic’ sphere became theoretically established as a fully ‘objectified reality,’<sup>7</sup> intertwined with but distinct from ‘political’ and ‘social’ spheres – indeed, the absence of the word ‘political’ and the elevation of ‘economy’ to ‘economics’ is testament to its ever-more theoretically disaggregated status.<sup>8</sup>

For Taylor, this conception of the ‘economy,’ with its roots in the eighteenth-century Enlightenment (especially its Scottish variant), provides a prime example of a secular, modern social imaginary: an interlocking system of immanent laws of efficient causality,<sup>9</sup> to which ‘buffered’ individuals have direct access.<sup>10</sup> Again, the emerging economy was not secular in the sense that no self-confessed religious persons participated in its associated practices. Quite the contrary, as Boyd Hilton has argued, in Victorian England evangelical ideas of both ‘moderate’ and ‘extreme’ forms underpinned widely held assumptions in debates regarding political economy at least into the 1860s; and while the latter half of the century saw a shift in theological emphasis, there was no simple decline in what one might term religious input.<sup>11</sup> The emerging economic sphere became and remained, in the words of H.S. Jones,

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<sup>5</sup> Collini, Winch, and Burrow, *That Noble Science of Politics*, 312. But see Ian Steedman, *Jevons’s Theory of Political Economy and the “Marginalist Revolution”* (Manchester: The Manchester Metropolitan University, 1995).

<sup>6</sup> See e.g. W. Stanley Jevons, *The Theory of Political Economy* (London and New York: MacMillan & Co., 1871), 44–78.

<sup>7</sup> Charles Taylor, *A Secular Age*, 176.

<sup>8</sup> Mary Poovey has described how financial journalism helped affirm the autonomy of the economic sphere. Mary Poovey, *The Financial System in Nineteenth-Century Britain*, The Victorian Archives Series (Oxford: Oxford University Press, 2003).

<sup>9</sup> Though he does not make it explicit, Taylor’s reference to efficient causality has important implications. ‘Efficient cause’ is the only of Aristotle’s four kinds of causality that implies a sequential ordering (‘one after the other’) of cause and effect. The prioritizing of efficient cause over the other kinds in the early modern mechanistic view of nature hence has implications for secularization in Taylor’s terms: the institution of a homogenous time where ‘one thing happens after another,’ which gradually comes to be taken for granted. The other Aristotelian kinds of causality are formal, material, and final cause. In these, temporal sequence is irrelevant. Taylor, *A Secular Age*, 176–181.

<sup>10</sup> The social imaginary of ‘the economy’ is somewhat different from ‘the public sphere’ and ‘the sovereign people’, Taylor argues, in that the market implicitly negates collective action for mutual benefit. The ‘invisible hand’ does its work behind the back of individual participants, regardless of their possibly egoistic personal goals. *Ibid.*, 181–185.

<sup>11</sup> Boyd Hilton, *The Age of Atonement*.

‘common ground to secular utilitarians and to those ... who wished to give it a theological significance.’<sup>12</sup>

Nevertheless, Taylor argues that the imaginary of the ‘economy’ is secular, because it is imagined and performed as existing solely in secular time, upheld only by the collective action of its participants, irrespective of specific confessional identities.<sup>13</sup> It came to define ‘a way [people were] linked together, a sphere of coexistence which could in principle suffice to itself, if only disorder and conflict didn’t threaten.’<sup>14</sup> No longer did collective life mirror or participate in higher times or hierarchical ‘harmonized meanings;’ no longer did it have any basis beyond the workings of its own continuous, self-generated action. While some might invoke God as the supreme ruler of the economic sphere, this was now merely as Designer of a well-engineered, impersonal order where specific moral codes would secure ‘blessing,’ or where individual self-love might indeed—through the work of underlying principles such as an ‘invisible hand’—ultimately lead to the benefit of all.

Money was a particularly important technology through which the Victorian economy was performed on a daily basis, mediating both notions of individual agency and of an abstract economic sphere.<sup>15</sup> The importance of monetary practices was also pointed to at the time. In what would become one of the most famous and influential discussions of Victorian political economy, Karl Marx highlighted the peculiar role of the money commodity in its performance.<sup>16</sup> Opening his *Capital I* (1867) with a discussion of money—thereby inverting the usual order of topics in the genre<sup>17</sup> (see above)—he sought to reveal how money tended to conceal from workers how their labour was the true source of ‘surplus value.’<sup>18</sup> For Marx, money was one commodity among other commodities, but one being ‘reified’ or ‘fetishized’ in a particular way: it was collectively (yet arbitrarily) accepted as standing apart from other commodities. Thus

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<sup>12</sup> H.S. Jones, *Victorian Political Thought*, British History in Perspective (Basingstoke: MacMillan Press Ltd, 2000), 41.

<sup>13</sup> In fact, on this particular topic there is in Taylor’s account (as Paul Griffiths comments) a curious lack of engagement with the distinct temporalities of modern economic practices – curious because this has otherwise proved a popular topic among theorists of modernity. Griffiths further suggests that the granting of legal quasi-personality to the limited liability corporation was a crucial step on the way to Taylor’s notion of ‘buffered selves’ choosing among various options. See Paul J. Griffiths, “[No Title],” *The Thomist* 72, no. 4 (2008): 665–669.

<sup>14</sup> Taylor, *A Secular Age*, 181.

<sup>15</sup> Simon Smelt, “Money’s Place in Society,” *The British Journal of Sociology* 31, no. 2 (1980): 204–223.

<sup>16</sup> Anitra Nelson, “Marx’s Theory of the Money Commodity,” *History of Economics Review* 33 (2004): 44–63.

<sup>17</sup> Alborn, “Economics and Business.”

<sup>18</sup> Karl Marx, *Capital*, trans. Eden Cedar and Paul Cedar, vol. 1, Everyman’s Library 848 (London: J.M. Dent & Sons Ltd, 1942), 3–58.

far, Marx's theory was quite similar to the Ricardian theories it critiqued: money 'symbolized' or 'veiled' an underlying economic 'reality.' But where most other theories saw this level as ultimate, Marx further postulated that all value in fact stemmed from human labour: the economic reality in turn 'veiled' a more fundamental 'social' reality. Rather than merely expressing an ontological basis of universal exchange, then, money was indeed central to the processes of modernization and its associated reconfiguring of 'social' relations.<sup>19</sup> It was a 'radical leveller,' a kind of universal acid dissolving real and qualitative differences. Several later sociological theories of money continued in this vein. In his *Philosophy of Money* (1907) George Simmel argued that modern money had become a pure symbol disconnecting individuals from groups and contexts on which they formerly depended, recasting all relationships in terms of quantitative difference.<sup>20</sup> More recently, Anthony Giddens has maintained this view. The use of money as a medium of exchange, he argues, implies trust in the abstract capacity of money as such, rather than in the actual persons involved in the transaction. Money is one of the key 'disembedding' mechanisms, as Giddens puts it, distinguishing modern from 'traditional' societies.<sup>21</sup>

Recently, scholars have accused these classic sociological accounts of wrongly treating money as a 'transhistorical' entity unequivocally enforcing a procrustean frame upon any socio-historical context.<sup>22</sup> Contrary to this, they point out that money might take on a multitude of different roles in as many different contexts, always remaining embedded in reciprocal and complex moral orders founded on personal trust,<sup>23</sup> and influencing a rich variety of identities and relationships.<sup>24</sup> Governmental

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<sup>19</sup> Geoffrey Ingham, "On the Underdevelopment of the 'Sociology of Money'," *Acta Sociologica* 41, no. 1 (1998): 3–18.

<sup>20</sup> Georg Simmel, *The Philosophy of Money*, trans. Tom Bottomore and David Frisby (London, Henley and Boston: Routledge & Kegan Paul, 1978).

<sup>21</sup> Anthony Giddens, *The Consequences of Modernity* (Cambridge: Polity Press, 1990), 21–28.

<sup>22</sup> Emily Gilbert, "Common Cents: Situating Money in Time and Place," *Economy and Society* 34, no. 3 (2005): 357–388; Andrew Leyshon, "Geographies of Money and Finance II," *Progress in Human Geography* 21, no. 3 (1997): 381–392; Phil Hubbard et al., "Geographies of Money," in *Thinking Geographically: Space, Theory and Contemporary Human Geography*, Continuum Studies in Geography (London and New York: Continuum, 2005), 146–174.

<sup>23</sup> See in particular Craig Muldrew, "Interpreting the Market: The Ethics of Credit and Community Relations in Early Modern England," *Social History* 18, no. 2 (May 1993): 163–183; Craig Muldrew, *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England*, Early Modern History: Society and Culture (Basingstoke: Palgrave, 1998); Craig Muldrew, "'Hard Food for Midas': Cash and Its Social Value in Early Modern England," *Past & Present*, no. 170 (2001): 78–120.

<sup>24</sup> For a much-quoted example of this, see Vivian Zelizer's work on earmarking of different money in America. Viviana A. Zelizer, "The Social Meaning of Money: 'Special Monies'," *The American Journal of Sociology* 95, no. 2 (1989): 342–377; Viviana Zelizer, *The Social Meaning of Money - Pin Money, Paychecks, Poor Relief, and*

attempts to police the orthodox meaning of money, they argue, have always gone together with an increasing awareness of the ambiguity of such meanings, as well as a range of ‘heretical’ everyday practices not sanctioned by institutional sources of financial authority.<sup>25</sup> One example cited is how Bank of England £1 and £2 notes continued to circulate for decades after they had gone out of print in 1821. One estimate suggests that a value of £9,304 was paid in such low-denomination notes between 1843 and 1881 – perhaps not a high sum in itself, but remarkable considering the notes’ lack of ‘official’ value.<sup>26</sup>

Notwithstanding such anomalies, officially sanctioned money was an increasingly important mediator of the Victorian economy. The following chapter is concerned with one form of Victorian money in particular: namely Bank of England notes (Bank notes for short).<sup>27</sup> As in the case of newspapers, the daily use Bank notes by all classes really only became a mass phenomenon at the beginning of the twentieth century. By the outbreak of war in 1914, when the Treasury issued low denomination currency notes for mass use, these circulated without any of the problems that associated with paper notes during the early 1800s and before. The fact that they assumed this status would have been, as Matthew C. Rowlinson puts it, ‘thoroughly counter-intuitive’ to those living in the eighteenth century.<sup>28</sup> Indeed, a popular trust of this kind did not arise spontaneously, but had to be nurtured throughout the century. Though building on developments described in chapter 3, it was only during the nineteenth century that Bank notes came to mediate the notion of a nationally integrated economy through the

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*Other Currencies* (New York: Basic Books, 1995); Viviana Zelizer, “Official Standardization Vs. Social Differentiation in American’s Uses of Money,” in *Nation-States and Money: The Past, Present and Future of National Currencies*, ed. Emily Gilbert and Eric Helleiner, Routledge/RIPE Studies in Global Political Economy 2 (London and New York: Routledge, 1999), 82–96.

<sup>25</sup> Hence, another important discipline in recent reconceptualizations of money has been literature studies. For some examples, see Patrick Brantlinger, *Fictions of State: Culture and Credit in Britain, 1694-1994* (Ithaca: Cornell University Press, 1996); Matthew C. Rowlinson, *Real Money and Romanticism*, Cambridge Studies in Romanticism 85 (Cambridge: Cambridge University Press, 2010); Margot C. Finn, *The Character of Credit: Personal Debt in English Culture, 1740-1914*, Cambridge Social and Cultural Histories 1 (Cambridge: Cambridge University Press, 2003).

<sup>26</sup> A.D. MacKenzie, *The Bank of England Note: A History of Its Printing* (Cambridge: Cambridge University Press, 1953), 130.

<sup>27</sup> Charles Kindleberger called the Bank note issue, backed by government credit, ‘a major innovation’ compared to preceding centuries and surrounding national economies alike. Likewise, economist Joseph Schumpeter saw banknotes as the ‘chief vehicle’ of the defining economic practices of the late-eighteenth and nineteenth centuries. Charles P. Kindleberger, “Financial Institutions and Economic Development: A Comparison of Great Britain and France in the Eighteenth and Nineteenth Centuries,” in *Keynesianism Vs. Monetarism and Other Essays in Financial History* (London: George Allen & Unwin, 1986), 71. Joseph A. Schumpeter, *History of Economic Analysis* (London: Routledge, 1997), 317.

<sup>28</sup> Rowlinson, *Real Money and Romanticism*, 5.

technological network and associated practices whose legitimacy was premised on the notes' sanctioned authenticity.

With the Bank of England as its central node, the Victorian money network gradually integrated people of all classes through a range of institutions and practices, tacitly educating them in the logic of investment, credit, and contractual relationships.

Among other developments we might instance the establishment of provincial building societies,<sup>29</sup> the consolidation and international expansion of the London Stock Exchange,<sup>30</sup> the emergence of the so-called 'gentlemanly capitalism' of those whose money 'made itself' through investment in urban properties,<sup>31</sup> and the proliferation of joint-stock companies following the Limited Liability Act of 1855 and the Companies Acts of 1856 and 1862 – all of which relied on the expanding network of credit and investment guaranteed by the Bank.<sup>32</sup> These Acts substantially expanded commercial markets (then by far the most permissive in Europe), transforming middle and upper class Victorians into what some scholars have called a 'nation of shareholders',<sup>33</sup> a category which also included increasing numbers of women.<sup>34</sup>

Together with rising membership numbers in friendly societies such as the Oddfellows providing insurance services, and industrial insurance companies such as *Prudential's* targeting of working-class individuals for industrial branch insurance, these practices served to '[embed] within a much wider segment of the population a familiarity with financial institutions, an understanding of concepts such as interest and economic risk, and an appreciation of the role that financial planning might play in ensuring personal and familial well-being.'<sup>35</sup>

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<sup>29</sup> Glyn Davies, *A History of Money: From Ancient Times to the Present Day* (Cardiff: University of Wales Press, 1994), 326–332.

<sup>30</sup> Ranald C. Michie, *The London Stock Exchange: A History* (Oxford and New York: Oxford University Press, 1999).

<sup>31</sup> P. J. Cain and A. G. Hopkins, "Gentlemanly Capitalism and British Expansion Overseas II: New Imperialism, 1850-1945," *The Economic History Review* 40, no. 1, New Series (February 1, 1987): 1–26; P.J. Cain and A.G. Hopkins, "Gentlemanly Capitalism," in *The Victorian Studies Reader*, ed. Kelly Boyd and Rohan McWilliam, Routledge Readers in History (Abingdon: Routledge, 2007), 83–95.

<sup>32</sup> Timothy L. Alborn, *Conceiving Companies: Joint-Stock Politics in Victorian Britain*, Routledge Explorations in Economic History 9 (London and New York: Routledge, 1998); James Taylor, *Creating Capitalism: Joint-Stock Enterprise in British Politics and Culture*, Studies in History: New Series (Woodbridge: The Boydell Press, 2006).

<sup>33</sup> George Robb, *White-Collar Crime in Modern England: Financial Fraud and Business Morality, 1845-1929* (Cambridge: Cambridge University Press, 1992), 3.

<sup>34</sup> Janette Rutterford et al., "Who Comprised the Nation of Shareholders? Gender and Investment in Great Britain, C. 1870-1935," *Economic History Review* 64, no. 1 (2011): 157–187.

<sup>35</sup> David R. Green et al., "Men, Women, and Money: An Introduction," in *Men, Women, and Money: Perspectives on Gender, Wealth, and Investment, 1850-1930*, ed. David R. Green et al. (Oxford: Oxford University Press, 2011), 10.

One example of this was the savings banks system. In response to the disappointing performance of the early Victorian philanthropic Trustee Savings Banks, where most working families could not actually afford the entry fees, the Post Office Savings Bank was created in 1861. As a London-based state savings bank using its 2,868 local post offices as feeder branches, its peculiar structure instantly put most of the population within walking distance of a local savings bank, while also securing a high level of anonymity and mobility. From 1861, the minimum deposit was one shilling, which allowed more people the opportunity to open an account. By 1863, the total number of accounts already exceeded 300,000; seven years later it had passed 1.2 million. In 1900, depositors held over 8.4 million accounts. In 1880, the new postmaster general Henry Fawcett introduced his highly publicized scheme of so-called deposit slips – a paper slip on which twelve one-penny stamps could be adhered – as a way of saving for the minimum entry deposit.<sup>36</sup> With the introduction of universal elementary education in the decades before 1900, the strategy of school Penny Banks, which encouraged children to accumulate savings, moved from being a characteristic of charity and ragged schools to becoming a part of the general educational system. In 1900, there were more than 5,000 Post Office Penny Banks in British schools.<sup>37</sup> Between 1870 and 1911 the number of working-class deposits in savings bank schemes rose from less than £2 million to more than £7 million.

Bank notes played an implicit but nevertheless central role in these ever expanding networks of finance. While Victorians used numerous forms of money – coins, cheques, shares, and bills of exchange, to mention only some – the extended period of inconvertibility during and after the French War foregrounded the issue of both local and Bank of England notes, their nature and credibility, both for upper-class theorists and lower-class users of the new £1 and £2 notes. When France declared war on England in 1773, numerous local banks had collapsed as people demanded gold for locally issued notes, and desperate bankers sought help at the Bank of England. In 1797, Pitt's government decided that the Bank was to stop payment, and (quite successfully) attempted to 'induce the public to accept the situation and use Bank

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<sup>36</sup> Albert Fishlow, "The Trustee Savings Banks, 1817–1861," *The Journal of Economic History* 21, no. 01 (1961): 26–40; "Data Processing and Technological Change: The Post Office Savings Bank, 1861–1930," *Technology and Culture* 39, no. 1 (1998): 1–32.

<sup>37</sup> Campbell-Kelly, "Data Processing and Technological Change," 16.

notes instead of gold.<sup>38</sup> Through repeated extensions of the restriction period after the war had ended, Bank notes were increasingly treated as ‘real’ money rather than mere representations of such.<sup>39</sup>

Furthermore, while Victorian working classes did not keep banknotes—which were of too high denominations—there is nevertheless much evidence that they *used* them in local banks to redeem their wages in coin.<sup>40</sup> As early as the 1810s, when small denominations circulated, it was not uncommon for several workingmen or sailors to be paid with a single note and left to break it up among themselves. This practice continued after the cash payment restriction was lifted; indeed, it was the rationale behind the exception of £5 notes from becoming legal tender in 1833 – they had to remain convertible into gold on demand for the payment of wages.<sup>41</sup> Indeed, as will be returned to below, Bank notes increasingly came to replace gold as security in the coffers of the provincial banks where these minor transactions took place. The population was well aware of this, and accepted that Bank notes were, for these purposes, ‘as good as gold.’ While coins remained the common money form in most everyday transactions, then, Victorians were not unfamiliar with the advantages and challenges associated with bank notes, those issued by the Bank of England in particular.

Another reason to see Bank notes as central to this evolving network has to do with the peculiarity of bank-issued notes as a form of money. Being redeemable at the issuing bank, they were ultimately valuable only within the particular geographical territory served by that bank, and hence their value depended on the trustworthiness of the banker rather than the people using them. In his 1805 report on the monetary state of the country, the Earl of Liverpool had lamented how this created problems for the travelling gentleman who consequently had to exchange currencies when crossing the border between two English districts just as if he had been ‘passing from one

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<sup>38</sup> Seeking to encourage such (at the time) counter-intuitive trust, *The Times* ensured its readers it ‘felt sure the bank was sound.’ Quoted in Sir Albert Feaveryear, *The Pound Sterling: A History of English Money*, 2nd rev. (Oxford: Clarendon Press, 1963), 183.

<sup>39</sup> Keith Horsefield argues that there were examples of Bank notes practically passing as cash even as early as 1790. J. Keith Horsefield, “The Beginning of Paper Money in England,” *The Journal of European Economic History* 6, no. 1 (1977): 117–132.

<sup>40</sup> See L.S. Pressnell, *Country Banking and the Industrial Revolution* (Oxford: Clarendon Press, 1956), 153–5.

<sup>41</sup> Vincent Duggleby, *English Paper Money: Treasury and Bank of England Notes 1694-2002*, vol. 6 (Sutton, Surrey: Pam West, 2002), 28.

small independent state on the continent to another.<sup>42</sup> The gradual concentration of note issuing authority with the Bank of England, which will be discussed below, can hence be seen as enlarging and consolidating its—and the state’s—territorial influence. Bank notes were thus an important technology for the integration of a national ‘economy,’ enveloping all in equal measure.

What, then, of secular time, in which the autonomous economy was assumed to exist? As seen in chapter 3, the guarantee of monetary value remaining the same over time (and space) had long rested on the state’s prerogative to raise and claim taxes – by force, if necessary.<sup>43</sup> Towards the end of the eighteenth century, after the state gained monopoly on the technologies of coin minting, this was still the case with Bank of England notes; their ‘promise to pay’ was guaranteed by the Bank’s privileged position with the government, rather than their technological make-up. In principle, if not in actuality, the state’s guarantee removed all finite limits to market exchanges; the state could postpone convertibility indefinitely, hence creating a debt that need never be repaid: the Bank could create and spend in the present money that apart from the state’s guarantee would only (potentially) come into existence in the future.<sup>44</sup> More important, however, was the state’s guarantee that the value of money was based on a universal standard beyond the realm of change and flux.<sup>45</sup> As Marx and others pointed out at the time, the establishment of a universal standard required an act of mental abstraction; the selected commodity had to be thought of as evacuated from the realm of qualitative change altogether. In our terms, it had to exist in a time independent of change. Commonly, gold and silver had been considered viable candidates for such a role because of their comparative homogeneity, portability, divisibility, and durability.

As seen in chapter 3, the immutability of the abstract standard was only (somewhat) successfully imparted into coins when the state acquired the technological means to mint coins that could not be clipped or counterfeited.<sup>46</sup> Only in the nineteenth century

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<sup>42</sup> Charles Jenkinson Liverpool, *A Treatise on the Coins of the Realm; in a Letter to the King* (Oxford: Oxford University Press, 1805), 221.

<sup>43</sup> For a discussion of this, see e.g. Philip Goodchild, *Theology of Money* (London: SCM Press, 2007), 9.

<sup>44</sup> Jeff Kintzele, “Man, Money, and Time. Logic of Credit: Logic of Modernity?,” *Design Issues* 4, no. 1/2 (1988): 131–140.

<sup>45</sup> See discussion in Philip Goodchild, *Capitalism and Religion: The Price of Piety* (London and New York: Routledge, 2002), 63.

<sup>46</sup> For an account of Boulton’s ‘coinage revolution’ in relation to national monetary standardization, see Eric Helleiner, *The Making of National Money: Territorial Currencies in Historical Perspective* (Ithaca and London: Cornell University Press, 2003), 46–53.



was the same achieved with paper money. Obviously, the mutual support of state and Bank remained important throughout the century, and manifested in a series of policy changes reinforcing the Bank's privileges; Bank of England notes were progressively standardized, and gradually became invested with a higher sense of security than the many local or regional currencies. However, more crucially, the Victorian period saw a proactive extension of the technological network entailed in Bank note production – in effect concentrating the complex production of authentic notes with the state's privileged Bank. The present chapter will describe the process through which the gold standard's features—its abstract immutability in particular—was imparted to material and moveable paper notes, validating their promise of convertibility, even though this promise would never have to be honoured. As a result of human-technological mobilization, then, Bank of England notes were turned into immutable mobiles, incarnating the abstract gold standard, and moving in a secular time independent of motion.

However, the temporal dimension of the Victorian money network should not be seen as exclusively secular. As philosopher Eric Alliez points out, while the abstract, homogeneous time of capital 'is undoubtedly opposed to the very idea of creative duration, [it nevertheless] invokes creative duration as its natural complement.'<sup>47</sup> In other words, while the practices of credit, speculation, and calculation did indeed imply an abstract and isochronic secular time independent of qualitative difference, the related notions of economic growth and progressive development indicated a historical time characterized by qualitative change and constant transition. As will be described below, Bank notes were themselves a material manifestation of a new age of civilized commerce, embodying an autonomous economic sphere continuously undergoing qualitative change in the form of growth or decline, expansion or contraction, progression or regression. In a final paradox, the intricate process of translating abstract immutability into moveable notes— and hence the mediation of secular time—itself required the mobilization of historical forces.

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<sup>47</sup> Indeed, what Marx admired in capitalism was precisely its 'intensity of historical development.' Éric Alliez, *Capital Times: Tales From the Conquest of Time*, trans. Georges Van Den Abbeele, *Theory Out of Bounds* (Minneapolis and London: University of Minnesota Press, 1996), xviii.

## THE BANKNOTE NETWORK

The central hub in the increasingly integrated networks mediating the national economy was the Bank of England (see figure 6.1). Indeed, the entire process of national integration might be seen in light of the gradual concentration of note issuing authority with the Bank. During the restriction period (1797-1821) local banks had issuing authority, and in the following decades, monetary debates centred on how to control the overall issuing of notes, and guarantee convertibility.<sup>48</sup> At stake was the problematic relation between a domestic economy whose stability, it was generally believed, depended on some kind of convertibility between paper notes and bullion,<sup>49</sup> and an international market where the commercial price of minted metal often diverted from the legal standard decided by domestic policies.<sup>50</sup> The rise of the Bank of England as the central institution in the money network—with its state-sanctioned privileges, its eventual monopoly on note issuing, and its peculiar role as lender of last resort in crises—became apparent already in the first half of the century.

Pitt's Restriction Act of 1797 had—since it prohibited the use of gold—required a drastic increase in the overall note supply. In the case of the Bank of England, three journeymen at the 'Crown' printing offices of James Cole had been printing about 2,000 notes per day before the Act. The new demand for Bank notes created unprecedented needs for both space and equipment, and in 1800 Cole's offices were moved to the Bank's facilities. Eighteen presses now printed more than 15,000 notes per day, counting only the new £1 and £2 notes, a number which more than doubled in the following five years (see figure 6.2).<sup>51</sup> Between 1809 and 1810 the amount of Bank notes outstanding increased from 17 to more than 20 million.<sup>52</sup> One estimate

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<sup>48</sup> Frank W. Fetter and Derek Gregory, *Monetary and Financial Policy, Government and Society in Nineteenth-Century Britain* (Shannon: Irish University Press, 1973). Henry Thornton's *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain (1802)* was an exception in this respect. This was the first attempt to explain and justify the workings of an inconvertible money system as more than a wartime emergency measure. Thornton argued that certain measures of directing would be necessary in any system, whether convertible or non-, but ultimately failed to persuade his contemporaries that a convertible system based on gold would not be entirely self-regulating.

<sup>49</sup> The attachment of the English government to a theory of 'sound money' has a long pedigree, as Samuel Knafo has argued. Samuel Knafo, "The Gold Standard and the Origins of the Modern International Monetary System," *Review of International Political Economy* 13, no. 1 (2006): 78–102; Samuel Knafo, "The State and the Rise of Speculative Finance in England," *Economy and Society* 37, no. 2 (2008): 172–192.

<sup>50</sup> Ghislain Deleplace, "Monetary Stability and Heterodoxy: A History of Economic Thought Perspective," in *Money, Credit, and the Role of the State: Essays in Honour of Augusto Graziani*, ed. Richard Aréna, Augusto Graziani, and Neri Salvadori (Aldershot: Ashgate Publishing, Ltd., 2004), 45–62. See also Joseph Schumpeter's discussion in Schumpeter, *History of Economic Analysis*, 688–98.

<sup>51</sup> MacKenzie, *The Bank of England Note*, 40–6.

<sup>52</sup> Some of this was however lent to the Government. See Feaveryear, *The Pound Sterling*, 193–201.

suggests that by 1810, banknotes, including both country banks' and those of the Bank of England, represented near 60 per cent of the entire English money supply.<sup>53</sup>



**Figure 6.1 – ‘The Bank of England, Threadneedle Street,’ *Illustrated London News*, 1866**

The profusion of country bank notes also led to a wide recognition of the national significance of local banking practice: when competition among banks increased, country bankers tended to take greater risks, which again led to over-issue (in particular of small-denomination notes) and consequent inflation which affected the entire network.<sup>54</sup> In 1810, the government appointed a committee to investigate the effects of the overall increase in circulating paper. The resultant Bullion Report, largely following the line of the so-called bullionist school of thought, spurred further debates about the state's relation to the Bank, and about absolute convertibility as a potential guarantee of economic stability. Many remembered how the French *assignat* had depreciated during the war (in fact with some help from counterfeit notes exported from England), and how this had threatened to drain England's gold reserves. Some, most famously David Ricardo, himself a member of the committee, argued that this demonstrated that high prices on gold were a sure sign of depreciation.<sup>55</sup> Peace returned in 1815 and gold was adopted as the official standard of value in 1816. Nevertheless, the suspension of convertibility was repeatedly extended

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<sup>53</sup> By contrast, French (following the failure of the *assignat*) and German money stocks were constituted almost entirely by metallic money well into the nineteenth century. See Knafo, “The State and the Rise of Speculative Finance in England.”

<sup>54</sup> By 1800, local banking had become the main English method for creating money in support of local industrial ventures. Pressnell, *Country Banking and the Industrial Revolution*.

<sup>55</sup> David Ricardo, *The High Price of Bullion, a Proof of the Depreciation of Bank Notes* (London: John Murray, 1810).

and only finally lifted in 1821. The relation between Bank notes and gold would remain the central issue at stake in the debates that were to follow, as we shall see.

Throughout the first half of the century, note issuing was gradually concentrated with the Bank of England. Already by the turn of the nineteenth century, the Bank had succeeded in eliminating competing note issuing in the London area.<sup>56</sup> By the 1820s, Bank notes with state-guaranteed convertibility already replaced gold in the reserves of country banks. In 1811, an author writing under the pseudonym ‘Timothy Tickle’ described this as a long-established practice. ‘It is supposed, the Bank of England has as great an amount in circulation, as the whole of the Country Bankers together; for the latter always keep a quantity of Bank of England Notes, to pay their own with, when presented for payment.’<sup>57</sup> Similarly, an anonymous ‘Old Country Gentleman’ stated in 1818 that Bank of England paper in country bank coffers was in fact preferable to gold: ‘[t]he people of this country do not wish for gold in circulation. They are accustomed to paper currency and they prefer it.’

A short time ago guineas and sovereigns were to be had for asking at every banker’s; but nobody, that is, no British subject, was willing to take them. Paper is more portable and more convenient, and while there is confidence in that paper it is by far the most eligible circulating medium.<sup>58</sup>

While ‘the notes of the Bank of England are received as money in every part of England,’ wrote another commentator in 1823, ‘the circulation of its notes is principally confined to London and its immediate neighbourhood’ At the same time, he noted, ‘the notes of country bankers in England have a circulation only within a certain distance of the place in which they are issued.’<sup>59</sup> He went on to argue that the Bank would only benefit from the establishment of local banks even in the London area: this would only ensure that Bank of England notes would be plentiful both in circulation and in other banks’ coffers, where they already functioned as a ‘fund to

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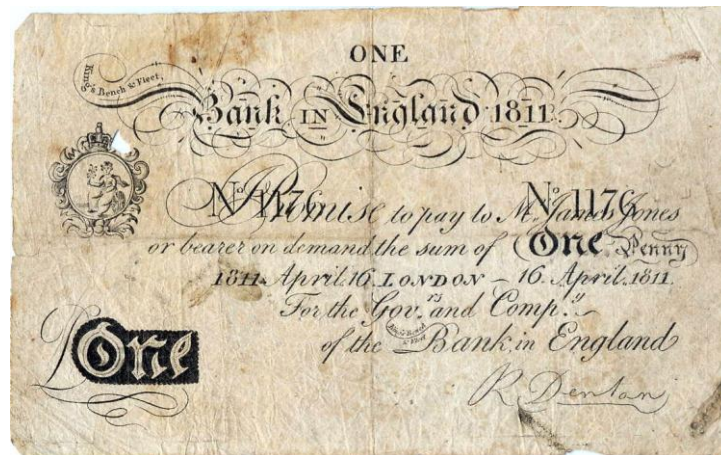
<sup>56</sup> Kevin Dowd, *Laissez-Faire Banking*, Foundations of the Market Economy (London and New York: Routledge, 1993), 222.

<sup>57</sup> Timothy Tickle, *Letters to a Friend, Explanative of Accommodation Paper, and the Business of Country Bankers; with a Proposition for a New National Bank, by Which One Million Would Be Annually Saved, Country Banks Abolished, and Accommodation Paper Be Rendered Less Necessary* (London: J. Briscoe Jr., 1811), 21.

<sup>58</sup> Anon., *Commercial Economy: Or, the Evils of a Metallic Currency. By an Old Country Gentleman* (London: John Hatchard, 1818), 8–9.

<sup>59</sup> Anon., *The Principles Which Govern the Value of Paper Currency: with Reference to Banking Establishments, as Stated in the New Edinburgh Review for January 1823: with Some Observations on Joint Stock Companies* (Edinburgh: Waugh and Innes, 1823), 6.

answer demands in gold and silver.<sup>60</sup> Country bankers themselves generally preferred Bank notes to gold as reserve media. Thus, the Bank gradually gained control over the reserves of other banks across England.



**Figure 6.2 – Bank of England £1 note, 1811**

The Bank's monopoly on note issuing was officially established through a series of parliamentary Acts, through which the state also secured a stronger form of territorial monetary governance. An Act of 26 March 1826 prohibited the issuing of notes less than £5 (during the 1825 crisis, the £1 and £2 notes had been reissued), and an Act of 26 May the same year preserved the Bank of England's monopoly on joint stock banking within a 65-mile radius of the centre of London. Note-issuing banking corporations were authorized to set up business anywhere else. As compensation, the Bank was allowed to set up its own branches throughout England and Wales, and soon established an office in most major cities.<sup>61</sup>

In 1833, Bank notes above £5 were made legal tender, and a weekly return of the Bank's accounts and bullion reserve was to be sent confidentially to the Treasury, for the government to be able to monitor Bank policy more closely. London joint stock banks were allowed to establish branches outside of London, though only as deposit banks – they could not issue notes. During this period, a high number of joint stock bank branches were set up in the provinces. Their reserves were full of Bank notes, which further strengthened the monetary connections between the provinces and their

<sup>60</sup> *Ibid.*, 9.

<sup>61</sup> For a discussion on the importance of this in the long-term integration of the financial market, see Charles P. Kindleberger, "Integration of Financial Markets: The British and French Experience," in *Keynesianism Vs. Monetarism and Other Essays in Financial History* (London: George Allen & Unwin, 1986), 86–104.

headquarters in the City.<sup>62</sup> The Bank of England set up branches in areas where local banks had collapsed, and generally encouraged existing banks to use Bank notes instead of their own. Provincial banks could rely on the convertibility of their stock of Bank notes, which could also be quickly increased through the Bank's local branch. Already by 1840, Bank notes had fully replaced provincial notes in the Liverpool area, though in most areas they circulated together with provincial notes.<sup>63</sup>

The key event in the consolidation of the Bank of England's monopoly on note issuing was Robert Peel's Bank Charter of 1844. The Act officially concentrated all note-issuing authority with the Bank of England, and in line with what was known as the Currency school (in some respects heir to the bullionist school of the 1810s) divided the Bank into two separate departments: the Issue Department and the Banking Department. The Issue Department was subject to a number of state-imposed restrictions on note issuing, granting the state more direct control over domestic currency.<sup>64</sup> The Bank was allowed to print £14 million of fiduciary money—that is, notes that were not convertible—and after that a one-for-one note issue against its varying reserves of gold. The Banking Department was to buy and sell gold on international markets, and had no corresponding governmental rules for its operation. It was thought that this arrangement would be self-regulating with the stock of gold increasing or decreasing in synchrony with international gold flows and with the domestic economy thus remaining stable due to convertibility. This arrangement established a bond between the government and the notes printed in the Bank's Issue Department, which would remain strong throughout the century.<sup>65</sup>

After the 1844 Act, a series of crises in 1847, 1857, and 1866 further consolidated the popular confidence in Bank of England notes, largely because of Bank's privileged position within the state. In 1845 and 46, harvests were bad; grain had to be imported, and hence gold exported. The railway mania spurred over-confident speculation,

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<sup>62</sup> While their inter-regional networks were thus expanded gradually from 1826, joint stock banks only came to operate on a national level towards the end of the century. Iain S. Black, "Money, Information and Space: Banking in Early-nineteenth-century England and Wales," *Journal of Historical Geography* 21, no. 4 (1995): 398–412.

<sup>63</sup> Alec Cairncross, "The Bank of England and the British Economy," in *The Bank of England: Money, Power and Influence 1694-1994*, ed. Richard Roberts and David Kynaston (Oxford: Clarendon Press, 1995), 57; Dieter Ziegler, *Central Bank, Peripheral Industry: The Bank of England in the Provinces, 1826-1913*, trans. Eileen Martin (Leicester, London: Leicester University Press, 1990).

<sup>64</sup> J. Keith Horsefield, "The Origins of the Bank Charter Act, 1844," in *Papers in English Monetary History*, ed. T.S. Ashton and R.S. Sayers (Oxford: Clarendon Press, 1953), 109–125.

<sup>65</sup> David Kynaston, "The Bank of England and the Government," in *The Bank of England: Money, Power and Influence 1694-1994*, ed. Richard Roberts and David Kynaston (Oxford: Clarendon Press, 1995), 19–55.

adding pressure on country banks.<sup>66</sup> Eventually, the government unofficially informed the Bank that it would present a Bill of Indemnity should the Bank breach the 1844 limit on note issues, and the Bank did indeed print additional notes. As it turned out, the public knowledge that notes need no longer be hoarded was enough to abate the panic.<sup>67</sup> In the 1857 crisis, the Bank in fact breached the limit by £2 million (less than half of which was put into circulation), but once again a governmental guarantee ‘eased the public mind.’<sup>68</sup> Likewise, in 1866, the mere confidence that the government would present a Bill of Indemnity had ‘such an effect that the next day the crisis seemed to be at an end,’ and no excess notes were printed.<sup>69</sup> The population were coming to trust in the state-authorized notes of the Bank.

However, the crises spurred controversy over the role of the Bank—after all a private corporation—in the national economy. Bagehot’s *Lombard Street* (1873)—named after the street address of the discount bank whose failure had caused the 1867 crisis—famously set out the embryonic principles for what came to be known as modern central banking, with the Bank of England acting as a lender of last resort. In fact, throughout the latter half of the century, the Bank was increasingly referred to as a ‘central bank,’ and whilst its governors did run it primarily as a private corporation with limited financial resources, it was distinguished from other banks in that its commercial interests occasionally were eclipsed by its unique responsibilities to the nation and its privileges in this regard. The Baring crisis in 1890, for instance, demonstrated the Governors’ understanding of how the Bank and the financial market were related, even though the Bank also in this instance sought its own interests as a private company.<sup>70</sup>

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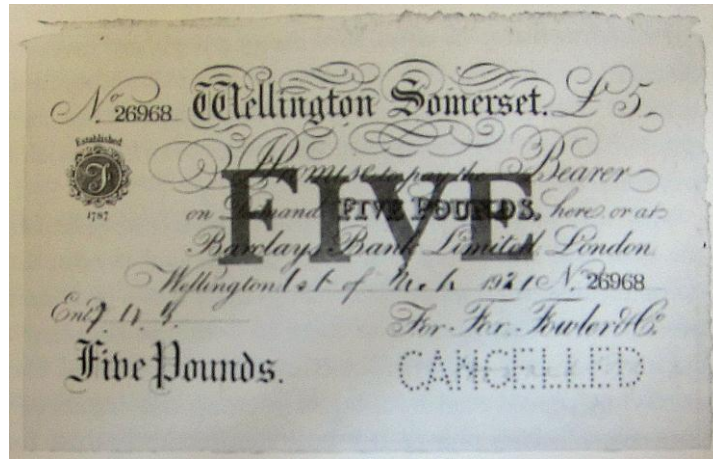
<sup>66</sup> Henry Booth, himself a railway proprietor, blamed the Act for the crisis, since the Bank had no real capital but only ‘a delusive and nominal one.’ Henry Booth, *The Rationale of the Currency Question; or, the Plea of the Merchant and Shareholder for an Improved System of National Banking* (London and Liverpool: John Weale in London; Thomas Baines in Liverpool, 1847), 9.

<sup>67</sup> A. Andréades, *History of the Bank of England, 1640 to 1903*, trans. Christabel Meredith, 4th ed. (London: Frank Cass & Co Ltd, 1966), 331–40.

<sup>68</sup> The letter from the Chancellor of the Exchequer to the Governors of the Bank was indeed modelled on the letter sent in 1847. *Ibid.*, 343–52.

<sup>69</sup> *Ibid.*, 359.

<sup>70</sup> There is some debate over how the term ‘central bank’ should be understood here. It might be argued that in twentieth-century terms the practice of ‘central banking’ involves more than crisis intervention, and rather targets crisis prevention through, for example, manipulating the Bank rate. Historian R.S. Sayers argues that even though the Bank increasingly did this in the latter half of the nineteenth century, its own rationale for doing so was merely to protect or increase its own gold reserves, and involved no concern for employment, speculation, the balance of trade and payments, the money supply, the state of credit, or price levels. Thus, he argues, the Bank did not act as a central bank in the twentieth-century meaning of the term before 1914. Nevertheless, the Bank of England certainly came to act as a lender of last resort in the various crises following 1844, in the sense that it stepped outside of its normal day-to-day operations in order to intervene and address the crises directly. R.S. Sayers, *The*



**Figure 6.3 – The last issued provincial note from Fox, Fowler & Co, 1921**

As Kevin Dowd has argued, what secured the Bank of England’s dominant position in the domestic money network was not its relative financial strength compared to other banks. Rather, ‘The source of that power ... was the Bank’s control over [other] banks’ redemption media,’ that is, the fact that other banks used Bank of England notes as security, backed by the state’s official sanction.<sup>71</sup> The gradual concentration of issuing authority with the Bank of England increasingly pushed country banks away from the note issuing that had been central to their local and largely informal credit arrangements with industrial entrepreneurs. Instead, joint-stock banks – which were regional rather than local, and operated on deposit banking rather than note issuing – received a number of privileges, and gradually incorporated the old country banks. As country banks became part of joint-stock banks with headquarters in London, they thereby lost their right to issue their own notes for local use, and generally turned to deposit transfers as a means to provide liquidity in the provinces.<sup>72</sup> Bankers needed no longer worry about the problems of convertibility, since their security now lay in the full convertibility of the Bank of England notes in their coffers.<sup>73</sup> The number of bank amalgamations increased dramatically towards the end of the century – 114 took place only between 1891 and 1902.<sup>74</sup> By 1900, provincial notes constituted a mere 7% of the complete banknote circulation (see figure 6.3).<sup>75</sup> Thus, while remaining a private institution—towards the end of the century even

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*Bank of England, 1891-1944*, vol. 1, Cambridge Paperback Library (Cambridge: Cambridge University Press, 1976), 1–3, 29.

<sup>71</sup> Dowd, *Laissez-Faire Banking*, 243.

<sup>72</sup> Knafo, “The Gold Standard,” 89.

<sup>73</sup> Black, “Money, Information and Space: Banking in Early-nineteenth-century England and Wales.”

<sup>74</sup> François Crouzet, *The Victorian Economy*, trans. Anthony Forster (London: Methuen & Co. Ltd, 1982), 331.

<sup>75</sup> Ziegler, *Central Bank, Peripheral Industry*, 38.



taking up direct competition with regional banks for private provincial customers through its branches<sup>76</sup>—from mid-century the Bank of England practically replaced the Mint as the central governmental institution of monetary affairs. Real money—even the paper kind—became the prerogative of the centralized nation state and its privileged central Bank.

### THE MONEY OF CIVILIZATION

Even though the network described above instituted an ‘economy’ which was thought to exist universally in secular time—as indeed manifest in the value of money, linked to the abstract gold standard—historical time (and the notion of civilizational development) was central to its mobilization and construction. The restriction period saw a proliferation of pamphlets debating the nature of bank notes and the question of their convertibility on a fixed gold standard. Exploring what they believed was uncharted territory in monetary policy and practice, contemporaries felt certain that no nation had ever before gone ‘solely on paper.’ As Lord Liverpool put it in the 1805 report quoted above, the ‘state of the Paper currency of this country, in its manner and extent taken together, is, I believe, without example in the history of mankind.’<sup>77</sup> Emerging in circumstances unlike anything that had gone before, while also being precisely what made these circumstances possible, Bank notes hence manifested the transition into a new historical era. This was a common view across the theoretical spectrum in the debates between the ‘bullionist’ and ‘anti-bullionist’ schools following the restriction period; between the Currency and Banking schools before and following Peel’s 1844 Bank Charter Act; and in the wake of the crises in 1847, 57, and 66. Whether authors lamented the profusion of ‘mere paper’ as a tragic diversion from the narrow path of full convertibility, or accepted the civilizational necessity of fiduciary money as long as the gold standard remained a fundamental principle, or even endorsed a currency entirely based on state-sanctioned paper – for better or worse, the money network and its associated practices marked a qualitative distinction between historical ages, and the collective force of ‘society’ needed mobilizing so as to make manifest the civilized quality of its present historical stage. In short, money could be reformed, and thus higher stages of civilization achieved.

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<sup>76</sup> Ibid., 129.

<sup>77</sup> Liverpool, *Treatise on the Coins of the Realm*.

But how did the essential quality of the civilized present manifest itself in monetary terms, and how precisely could the present money network be distinguished from its savage past? On this, the views differed substantially. Some saw the unprecedented extensive use of paper money as an unequivocal sign of decadence and even regress. Despite its appearance of creating unlimited progress, the profusion of paper money made the present age one characterized by ‘Mammon-worship,’ generating new powerful classes of fund-holders whose wealth was merely ‘fictitious.’ In 1817, during the restriction period, journalist William Cobbett published a series of essays where he argued that not only was the increase in paper money a sign of depreciation rather than financial growth, but it also consolidated the power of ‘stock jobbers’ as well as creating higher levels of poverty in general.<sup>78</sup> Later, Thomas Carlyle lamented how the ‘cash nexus’ of profit-making and commercial exchange had become the main mode of human interaction, in contrast to the reciprocal and charitable modes of hierarchical social being that (he believed) had characterized the medieval world.<sup>79</sup> Friedrich Engels, writing in 1844, accused ‘the middle classes in England [of having become] the slaves of the money they worship.’<sup>80</sup> Numerous writers and novelists echoed the critique, and levelled their charges specifically at the speculators whose wealth was ‘fictitious’ and reduced human relationships to a question of financial gain; Charles Dickens, William M. Thackeray, Anthony Trollope, and John Ruskin, to mention only a few.<sup>81</sup>

Some even put forward the view that the creation of inconvertible paper money went against the very grain of the divinely ordered universe. In 1840, one writer argued that if Bank notes were taken as representative of gold, then printing inconvertible notes amounted to ‘virtually [making] Gold as plentiful as Paper Money.’ Hence, for example, if a £5 note was at a discount of fifty shillings of its value, then ‘there would be a virtual creating of Two Pounds Ten Shillings in Gold,’ as if one had mastered the diabolic art of alchemy, or discovered ‘the Philosopher’s Stone.’<sup>82</sup> Such over-issuing of fictitious money, he declared, had been the downfall of every great civilization

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<sup>78</sup> William Cobbett, *Cobbett’s Paper Against Gold* (London, 1817). See also G.D.H. Cole, *The Life of William Cobbett*, Reprinted. (Abingdon: Taylor & Francis, 2011), 112–14.

<sup>79</sup> Thomas Carlyle, *Chartism*, 2nd ed. (London: James Frases, 1840), 58.

<sup>80</sup> Friedrich Engels, *The Condition of the Working Class in England.*, trans. W. O Henderson and W. H Chaloner (Stanford, CA: Stanford University Press, 1968), 312.

<sup>81</sup> John R. Reed, “A Friend to Mammon: Speculation in Victorian Literature,” *Victorian Studies* 27, no. 2 (1984): 179–202.

<sup>82</sup> Anon., *Monetary Currency; or, the Operation of Money Shown to Be a Perfect Science, Et.c.* (London: Effingham Wilson, 1840), 3. Emphasis in original.

since Solomon. Money was ‘one of the grand links that connect[ed] the natural and the moral world,’ he argued. Hence, the amount of paper must be fully based on the secure basis of scientific calculation of the unchangeable amount of gold in the world, so the circulation of notes might perfectly mirror the immutable and uniform motion of the natural universe.

Bank notes hence signalled a fall from grace, a disastrous deviation from the golden ages of the past. Yet at the same time, the language of civilizational regress was also employed by some seeking to dismiss any further necessity of gold in a civilized age. The negative character of the present age was not manifest in the profusion of paper money, but rather in the persistence of gold in what was supposedly an age elevated above such ‘base metals.’ Far from a civilizational achievement, then, metallic money represented a historical stage to be left behind. An anonymous pamphlet from 1802 opened by stating that ‘[b]anks and paper currency have necessarily grown out of progressive civilization, and the increase of trade which it has accompanied or given rise to.’<sup>83</sup> In 1818, barrister John Wray declared that

[t]he establishment of an efficient paper currency maintaining an unimpaired value, during a period of more than twenty years, exhibits to the political economist the important fact, not previously supposed to be possible, that the intervention of a metallic currency for the circulation of every species of exchangeable commodities, may be safely dispensed with.<sup>84</sup>

Metallic money, money with intrinsic value, belonged to ‘the ruder ages ... the infancy of society.’<sup>85</sup> Sir William Congreve, mostly known for his many technical and military inventions, concurred, stating that civilization implied leaving behind the notion of intrinsic value all together: ‘in civilized society ... the circulating medium is one of no value in itself.’<sup>86</sup> ‘A real metallic or intrinsically valuable currency of any sort is merely barter, the instrument of a barbarous age,’ declared later MP George

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<sup>83</sup> Anon., *Serious Reflections on Paper Money in General, Particularly on the Alarming Inundation of Forged Bank Notes, with Hints for Remedying an Evil Threatening Destruction to the Internal Trade of the Kingdom* (London: R. Thurgood, 1802), 9.

<sup>84</sup> John Wray, *Dangers of an Entire Repeal of the Bank Restriction Act and a Plan Suggested for Obviating Them* (London: Burgess, Hunt & Carter, 1818), 3.

<sup>85</sup> *Ibid.*, 5–6.

<sup>86</sup> William Congreve, *On the Impracticability of the Resumption of Cash Payments; or the Sufficiency of a Representative Currency in This Country, Under Due Regulations; and of the Danger of a Reduction of the Circulating Medium, in the Present State of Things.* (London: J. Whiting, 1819), 36.

Poulett Scrope in 1830.<sup>87</sup> Instead, Scrope saw the profusion of paper money as a welcome sign of a dawning new age.

[t]he invention of paper-money has, indeed, been one of the greatest improvements that ever blessed mankind. It was as great a step, as from spoken to a written language, or from manuscript to print...it has itself been one of the main causes, as effective a cause as the steam-engine itself, of the rapid improvement of Great Britain in production and wealth, and of the rate at which we have outstripped the remainder of the world.<sup>88</sup>

Already in 1810, John Grenfell had seen Britain as having a developmental advantage on other civilized nations, because of the people's trust in state sanctioned Bank notes:

[If] other nations [had] an accredited Paper Currency with the same confidence ... in the stability of their government and the security of their trade, [as do the British, so that their] ... national and private establishments [might] issue what merchants call good paper in sufficient quantities for the internal circulation of the different countries in the commercial world, [then] gold and silver would no longer be mistaken for wealth.<sup>89</sup>

Others used organic imagery to describe how a paper currency was able to expand and 'vitalize' the economy, providing health to the entire 'social body.' 'Great circulation [of paper money] is all that Britain needs,' declared one anonymous writer in 1818, protesting the 1816 'return' to the gold standard.<sup>90</sup> A later writer declared that '[t]he healthy and vigorous condition of the body politic is as much the result of a sound and expansive Currency medium, as that of the human body is to the salutary quality and freedom of its sanguineous circulation.'<sup>91</sup> Only paper money, he argued, could fulfil such a vital function.

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<sup>87</sup> G. Poulett Scrope, *On Credit Currency, and Its Superiority to Coin, Etc* (London: John Murray, 1830), 75.

<sup>88</sup> *Ibid.*

<sup>89</sup> John Grenfell, *A Defence of Bank Notes. With Two Letters to Francis Horner, Esq, M.P.* (London: John Walker, 1810), 14.

<sup>90</sup> Anon., *Commercial Economy*, 13.

<sup>91</sup> Thomas Dahlman, *New Money Advocate: A Plan for Realizing the Perfection of Money, Etc* (London: Effingham Wilson, 1847), 8. To be sure, though images of circulation became a common reference point, there were diverging Victorian views on the nature of the economic sphere. On the one hand, an organic view of the economy as a self-sufficient and self-regulating system, where 'circulation' of money (and commodities) echoed the circulation of blood in a healthy human body; on the other hand, a view of the money economy as a mechanical machine, a human means of mastering, enhancing, and ultimately supplanting 'natural' processes. Either way, Bank notes were taken as the material manifestation of an economic sphere peculiar to modern civilization, distinguished from its past by its inherent quality. See e.g. Timothy Alborn, "Economic Man, Economic Machine: Images of Circulation in the Victorian Money Market," in *Natural Images in Economic Thought: "Markets Read in Tooth and Claw,"* ed. Philip Mirowski, *Historical Perspectives on Modern Economics* (Cambridge: Cambridge University Press, 1994), 173–196.

Another important reason that paper money was taken to signify a civilizational stage, was that it—quite contrary to what Marx and twentieth-century sociologists would later argue—required levels of personal character and interpersonal trust only achievable in highly developed civilizations. ‘Credit ... originates in the foresight of prospective wants is the means of wealth, and denotes a high degree of civilization, which can only be carried to the full extent among nations of great moral integrity.’<sup>92</sup> In other words, English bank notes made manifest the trustworthiness of the English nation. Indeed, some felt that such levels of trust and honesty promised eras of unprecedented global harmony. In 1833, publisher John Taylor described the ‘[s]cene of peace, order and plenty’ which would follow the universal adoption of a paper currency convertible to precious metals:

Other countries, following our example [in using a convertible paper currency], will attain a greater degree of freedom and ease than the world has witnessed under any form of government for near 3000 years. The slavery of the soul – that worst form of slavery, will cease! Every man will sit under his own vine and fig tree, none making him afraid. Mammon’s empire will be destroyed; for no one will care for riches, where all may easily have enough [since fiduciary money can be printed at need]. Art, science, and literature, will present their treasures freely to all people; and those who have a taste for their enjoyment, will not want means or leisure to indulge it. Above all, charity and true piety, having then ample scope and opportunity for action, will be found, we may hope, in every breast, since all must be sensible what great mercies they have had bestowed upon them by Divine Providence, and how necessary it is that they should show their gratitude to the Giver of all good, by endeavouring to extend the benefits and blessings which they themselves enjoy, to others in distant regions, who are less fortunately circumstanced in regard to civilization, religion, and liberty.<sup>93</sup>

While few would go to such lengths, it was generally acknowledged that the unprecedented levels of prosperity would have been unimaginable without a wide circulation of fiduciary money. A wholly metallic currency, argued Whig MP Henry Brooke Parnell, would deprive industry of the possibility of loans and discounts, and ultimately lead to a loss of the productivity that characterized civilized societies.<sup>94</sup> Parnell argued against the Bank of England monopoly on note issuing (in London), and for a system of ‘free banking.’ ‘The main foundation of trade is credit,’ he

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<sup>92</sup> William John Browne, *The Real El Dorado; Or, The True Principles of Currency Developed* (London and Liverpool: Effingham Wilson; Wareing Webb, 1847), 5.

<sup>93</sup> John Taylor, *Currency Fallacies Refuted and Paper Money Vindicated* (London: Hatchard and Son, 1833), 92–3.

<sup>94</sup> Henry Brookes Parnell, *Observations on Paper Money, Banking, and Overtrading* (London: James Ridgeway and Effingham Wilson, 1827), 73.

argued, since it allowed and encouraged the extension of existing trade networks. ‘[T]he more widely the circulation of paper is extended, the more the transactions of trade will be increased, and the productive industry and wealth of the country augmented.’<sup>95</sup> In other words, more Bank notes meant more extensive networks, and vice versa. Bank notes were both the result and the premise of commerce on the scale of civilization; a material manifestation of the historical progress towards higher stages. As one anonymous writer put it in 1844:

In the early and uncivilized history of a nation, the transactions between man and man are found to proceed on the principle of barter, and the precious metals, possessing intrinsic value, become an important means of interchange; but, as civilization and settled government succeed, greater confidence ensues, and a system of credit arises...[Both in England and its colonies, it has been found] that, by means of credit or symbolic currency, the people ... have advanced rapidly in wealth; land has been cleared and brought more extensively into cultivation; large manufactories have arisen; population has proceeded with rapidity; towns have been built where before huts or villages only were known; and incredible strides towards national wealth have been made.<sup>96</sup>

The quoted paragraph described what was taken as general signs of civilizational progress – cultivation of land, industrialization, population growth, and urbanization – as ultimately being effects of bank notes, and the confidence and trust on which they were premised.

Writing in 1827, Parnell had already suggested that paper money eventually would replace all former forms of money.

[The] introduction of the use of paper money may justly be considered as one of the most beneficial of all the expedients to which human ingenuity, in improving the relations of society, has given birth; and as coin metal were substituted for barter in the first stages of the civilization of mankind, it may be expected, as the world becomes more and more refined, that paper money will be substituted universally for coin.<sup>97</sup>

This never became a mainstream position, but it was not unheard of. During the debates between the so-called Banking and Currency schools surrounding the Bank Charter Act in 1844, the two schools in principle agreed on the need for convertibility on a fixed gold standard. After the crisis in 1847, however, this ‘Peelite consensus’

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<sup>95</sup> Ibid., 79.

<sup>96</sup> Anon., *The National Currency*, Hume Tracts (London: Saunders and Otley, 1844), 1.

<sup>97</sup> Parnell, *Observations on Paper Money, Banking, and Overtrading*, 77.

met opposition from reform groups advocating the abolishment of the gold standard altogether, either in favour of a bi-metallic standard, or indeed a pure paper currency.<sup>98</sup> The same year, the newly founded Birmingham Currency Reform Association sent a memorial to the Queen herself, and in Glasgow, the newly founded National Anti-Gold Law League marshalled 3,000 people for its organizing convention in 1847.<sup>99</sup>

One of the most unequivocal celebrations of paper money in the latter half of the century came out of one of these provincial currency reform movements. The Liverpool Currency Reform Association was founded in 1847, and became a noted ‘anti-gold’ voice after the crisis of the same year.<sup>100</sup> One of its founding members and most industrious pamphleteers, James Harvey, published several pamphlets arguing against the gold standard and advocating a paper currency backed exclusively by state power. In 1877, he summarized his arguments in the book *Paper Money, The Money of Civilization*. Quoting heavily from John Ruskin’s *Unto This Last* (1860)<sup>101</sup> and George Berkeley’s *Querist*,<sup>102</sup> Harvey argued that paper money was ‘the money of the future,’ something he took to be ‘evident from the various steps through which nations advance in their progress in the paths of civilization.’<sup>103</sup> He pointed out how *absolute* convertibility was, as was widely recognized, impossible to reconcile with the economic growth characterizing the age, and hence to what he considered a blatant contradiction in the 1844 Act (where the Bank was allowed print a certain amount of inconvertible notes). If the vital principle for economic soundness was in fact full convertibility, he argued, then ‘Sir Robert Peel stumbled at the threshold [by

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<sup>98</sup> Anna Gambles, *Protection and Politics: Conservative Economic Discourse, 1815-1852*, Studies in History (Woodbridge: The Boydell Press, 1999), 226.

<sup>99</sup> Murray Newton Rothbard, *Classical Economics: An Austrian Perspective on the History of Economic Thought* (Aldershot: Elgar, 1995), 263.

<sup>100</sup> Indeed, so much so that Murray N. Rothbard calls it one of the contributing factors behind the ‘effective fusion of the currency and banking schools after the enactment of Peel’s Act,’ as both of these, ‘after all, were dedicated to the gold standard,’ albeit in varying degree. Ibid. For a contemporary comment on the association’s position, see Anon., ‘Gold as a Commodity and as a Standard of Value,’ *The Bankers’ Magazine and Journal of the Money Market* 8 (1848): 693–696.

<sup>101</sup> John Ruskin held it to be a distinguishing trait of civilized societies that the value of money was ultimately ‘secured by legal measures,’ and not dependent on notions of intrinsic value: ‘*the final and best definition of money is that it is a documentary promise ratified and guaranteed by the nation to give or find a certain quantity of labour on demand.*’ John Ruskin, *Unto This Last: Four Essays on the First Principles of Political Economy*, Facsimile of 1862 ed. (Nelson: Hendon Publishing Co., 2000), 53.

<sup>102</sup> George Berkeley, *The Querist, Containing Several Queries, Proposed to the Consideration of the Public. Now First Re-Printed from the Irish Edition, Lately Publish’d in Dublin. With an Advertisement to the Reader, on Occasion of Re-Publishing It* (London: J. Roberts, 1736).

<sup>103</sup> James Harvey, *Paper Money, The Money of Civilization. An Issue by the State, and a Legal Tender in Payment of Taxes* (London: Provost & Co, 1877), 38.

immediately issuing] £14,000,000 of paper beyond his basis.’<sup>104</sup> In fact, Harvey argued, ‘the vast commercial and industrial transactions of this country cannot ... be carried on securely for any length of time with a circulation based upon or even nominally convertible into gold. There is not enough gold in the world.’ Progress was irreversible, and there could be no return to earlier stages of development.<sup>105</sup> The civilized form of money must be as expansive as the economic sphere it at once facilitated and embodied.

The widespread insistence on convertibility, declared Harvey, was symptomatic of a society reluctant to make the necessary effort to progress. The idea of a fully metallic currency was (as most would agree at the time) ‘the theory of the savage, and being impracticable in a civilized community.’<sup>106</sup> However, Harvey went further; the present system, he argued, was in fact not a civilized one at all. Its compromise between metallic currencies and paper money guaranteed solely by the sovereign nation state rather resulted in a sour mix of civilization and barbarism; civilized paper money assuming convertibility into barbaric gold. Such ‘love of gold,’ Harvey stated, ‘is a relic of barbarism, only worthy of the half-civilized orientals.’<sup>107</sup> England would never ‘permanently prosper as a nation till we return to a representative Paper Money – the money of civilization and progress.’<sup>108</sup>

May we not all be victims of a prejudice [assuming the necessity of convertibility], handed down without question from generation to generation? May not civilization be clamouring for a circulating medium capable of expanding with the expanding production created by machinery, and increasing control over the powers of nature revealed to us by chemistry?<sup>109</sup>

The Bank Charter Act, with its insistence on convertibility, was a failure to move with the current of History, and hence doomed to fail.<sup>110</sup>

Instead, Harvey argued, the value of paper money had to be based on trust in the state’s ability to honour its promise to pay: ‘[t]here is the simple remedy – make

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<sup>104</sup> Ibid., 34.

<sup>105</sup> Ibid., 184.

<sup>106</sup> Ibid., 7.

<sup>107</sup> Ibid., 221.

<sup>108</sup> Ibid., 66; John Twells, *How Can Paper Money Increase the Wealth of a Nation?* (London: W. Skeffington, 1867), 13.

<sup>109</sup> Harvey, *Paper Money*, 129.

<sup>110</sup> Harvey quoted London banker John Twells, who had argued that Peel’s Act of 1844 restoring convertibility was a regressive rather than progressive (more civilizing) move; ‘a step backwards.’ Twells, *How Can Paper Money Increase the Wealth of a Nation?*, 13.



money under State supervision and under parliamentary control.<sup>111</sup> The state's ability to pay lay not in its hoarded gold, but in the 'wealth lying hid in the nerves and sinews of the labourer, the enterprise of the merchant, the skill of the artisan, the discoveries of science.'<sup>112</sup>

The time will undoubtedly arrive when this scramble by the great nations for the temporary possession of a few millions of gold will be remembered by statesmen with feelings of amused contempt for the financial ignorance of our age. The contentions of children for straws and feathers are not more frivolous.<sup>113</sup>

Contrary to metallic money or paper money based on convertibility to barbaric metal, a paper currency based on the state's sovereign ability to muster human labour force would be capable of both generating and sustaining the speed and expansion characteristic of civilizational progress.

As mentioned above, Harvey's arguments did not receive particularly wide support at the time, but were nevertheless considered important enough to be reviewed and critiqued in a number of leading journals, including the *Economist*. His critics pointed out that while the state could indeed issue money based solely on its own sovereign authority and this might stimulate domestic trade, such a scheme could not work in international trade among sovereign nation states.<sup>114</sup> A state might accept tax payments in its own money, but what precisely could it do with the money it received, if there was no way to determine the value of its currency apart from its own authority? In international trade, the gold standard was a necessity.

Indeed, for all the different perspectives on Bank notes, there was widespread agreement throughout the century that a characteristic sign of civilizational progress was precisely their convertibility on a fixed and 'rational' gold standard. In Timothy L. Alborn's words, by the mid-nineteenth century '[t]he British were fairly sure that gold was the most civilized metal on which to base a cash economy.'<sup>115</sup> During the crisis in 1847, when Harvey had begun to argue for the abolition of the gold standard, the 1844 Act equally received critique for having deviated from the true path of

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<sup>111</sup> Harvey, *Paper Money*, 68.

<sup>112</sup> Twells, *How Can Paper Money Increase the Wealth of a Nation?*, 13.

<sup>113</sup> Harvey, *Paper Money*, 188.

<sup>114</sup> J.F., '[No Title]', *The Radical Review* 3 (1877): 587–592.

<sup>115</sup> Timothy L. Alborn, "Coin and Country: Visions of Civilization in the British Recoinage Debate, 1867-1891," *Journal of Victorian Culture* 3, no. 2 (1998): 252.

absolute convertibility. ‘Gold being recognized and treated as money in every part of the civilized world, it is of the utmost importance that all paper currency should recognise this commodity as its standard.’<sup>116</sup> The gold standard was the ultimate achievement of civilization. As Whig MP Robert Torrens put it, ‘[i]n all civilized countries, the articles adopted as money are the precious metals.’<sup>117</sup>

During the second half of the century, the language of civilizational progress was still marshalled equally by all sides in the recoinage debates. Gold, a sign of cosmopolitanism and freedom from national boundaries, could also serve the establishment of sovereign and unified nations once it was coined and engraved with the likenesses of heads of state: Germany in 1871, the South African Republic in 1880, or indeed the British Empire, when in the 1880s Queen Victoria was depicted on the new sovereigns.<sup>118</sup> Later in the century, many saw the waves of financial speculation as a threat to civilized society, and here gold could be seen as representing a stable and rational ground from which to resist these negative tendencies: the gold standard as a civilized moral restraint on the passions of eager speculators. On this view, the English devotion to the gold sovereign became a sign of the nation’s civilizational stature. The term *sterling* came to signify a high quality, a sense of trustworthiness and reliability. In his *Expansion of England* (1883), historian J.R. Seeley used the term in this way, remarking that ‘the treasure of truth that forms the nucleus of the civilization of the West is incomparably more sterling not only than the Brahminic mysticism with which it has to contend, but even than that Roman enlightenment which the old Empire transmitted to the nations of Europe.’<sup>119</sup> Here, civilization and Englishness were conflated in analogy with the complete coincidence of intrinsic and signified value in the gold sovereign: Englishness constituted a complete consistency between inner character and external appearance, and gold coins – here in contrast to bank notes – embodied the rationality and trustworthiness of English civilization.

The discourses of monetary reform as a means of generating civilizational progress were ubiquitous in debates over the nature and value of Bank notes and their relation

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<sup>116</sup> John Little, *The Monetary Crisis of 1847: Its Causes and a Proposed New System of Paper Currency* (Glasgow: G. Galle, 1847), 15.

<sup>117</sup> Robert Torrens, *On the Operation of the Bank Charter Act of 1844, As It Affects Commercial Credit* (London: Smith & Elder, 1847), 3.

<sup>118</sup> Alborn, “Coin and Country,” 254.

<sup>119</sup> John Robert Seeley, *The Expansion of England; Two Courses of Lectures* (London: MacMillan & Co., 1883), 283. Emphasis mine.

to gold, despite contradictory arguments as to what in fact manifested civilizational qualities. Gold was a barbaric metal destined to be replaced by paper money as civilization progressed, yet also a civilizational achievement founded on the collective wisdom of humanity. Bank notes were a sign of immorality, barbarism and civilizational decline, yet also the very promise of a harmonious and prosperous future, at once the premise and effect of civilized commerce.

### MATERIAL ABSTRACTIONS

Notwithstanding these differences, there was wide agreement that the gold standard provided a fixed point around which the economy could revolve and develop. Most contemporaries would have agreed with the statement made by Irish lawyer Henry Arabin in 1839, that ‘[i]t [was] of the first necessity that there should be one common standard to which the value of all commodities should be referred,’<sup>120</sup> even if they might not agree what the standard should be.<sup>121</sup> It was accepted across the board in Victorian currency debates that commodity standards as such were ‘inevitable, [and] within the natural order of things,’ beyond what merely human institutions could simply decree.<sup>122</sup> ‘That the standard of value shall not be altered needs no more resolution of the House of Commons to affirm it, than the standard of heat,’ wrote publisher and currency reform advocate John Taylor in 1833.

All that Parliament can do, is to provide that our pound sterling, and its fractional parts, shall be as true and equal an indicator at all times, and under all circumstances, of that which it professes to measure – *value*, as the scale of the thermometer is of that which it professes to measure – *heat*.<sup>123</sup>

The standard itself was truly abstract and universal, and the state could do nothing to change the fact. Its task was merely to ensure convertibility between the standard and its representative tokens.

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<sup>120</sup> Henry Arabin, *A Plan for Extending the Paper Currency, on the Security of the Nation* (London: J.G. & F. Rivington, 1839), 5.

<sup>121</sup> In Britain, it was also generally considered beyond question that gold was most suitable as a universal standard of value. It was one of the first states to move from bimetallic to monometallic (gold) standard, but contemporaries were ‘largely unaware’ of what later economists would consider the benefits of an *international* gold standard, ‘. Ted Wilson, *Battles for the Standard: Bimetallism and the Spread of the Gold Standard in the Nineteenth Century*, ed. Derek H. Aldcroft, *Modern Economic and Social History* (Aldershot: Ashgate, 2000), 2, 11–13.

<sup>122</sup> *Ibid.*, 13.

<sup>123</sup> Taylor, *Currency Fallacies Refuted and Paper Money Vindicated*, vii.

But how could the characteristic features of the gold standard—its immutability in particular—be translated into paper notes? How could pieces of paper be made to manifest the regularity and uniformity that granted gold its inherent value? Eric Helleiner has argued that mechanized means of production was not in itself sufficient for producing a homogenous currency across the national territory; the policing force of a centralized state with authority to guarantee value and authenticity was also needed.<sup>124</sup> The state could, through its sovereign power, guarantee full convertibility of Bank notes into gold at a fixed rate. Likewise, as noted in Chapter 3, philosopher Philip Goodchild has argued that since it is ultimately the national state that guarantees the value of its territorial currency, there is in every monetary transaction a covert honouring of the state's authority: an implicit trust in the ultimate power of the state.<sup>125</sup> Similarly, Matthew C. Rowlinson has suggested that the use of state-sanctioned money effects

identification with other subjects [of the state]; one accepts such a currency only in the belief that there exists other subjects like oneself who will accept it in their turn in a future transaction. As a materially embodied medium of exchange, then, modern money has symbolic effects that can reinforce state and national identifications.<sup>126</sup>

On this view, the power of the nation state ultimately rested on its 'public credit,' its indebtedness to its citizens. The actual present wealth of the state was founded on its potential future wealth, the state always 'mortgaging its future prosperity for present expediency.'<sup>127</sup> The value of Bank notes was simply backed by state power, which was underscored in the national symbolism printed on the notes themselves. There were indeed some indications of this during the Victorian period. The Britannia figure had been adopted as the official seal of the Bank of England shortly after its foundation in 1694, but her image could be seen on many provincial notes as well.<sup>128</sup> Most country bank notes emphasized the local roots and trustworthiness of the issuing bank, carrying images of local bank buildings, past local worthies, or general symbols of commerce.<sup>129</sup>

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<sup>124</sup> Helleiner, *The Making of National Money*, 60.

<sup>125</sup> Goodchild, *Capitalism and Religion*, 32.

<sup>126</sup> Rowlinson, *Real Money and Romanticism*, 4.

<sup>127</sup> Brantlinger, *Fictions of State*, 35.

<sup>128</sup> Virginia Hewitt, *Beauty and the Banknote: Images of Women on Paper Money* (London: British Museum Press, 1994), 18.

<sup>129</sup> David Blaazer, "Sterling Identities," *History Today* 52, no. 1 (2002): 12–18.



**Figure 6.4 – Daniel Maclise’s Britannia design for the 1855 Bank of England note**

Whenever Britannia was featured, by contrast, her protective figure was seen as a personification not of local or private interests, but of the state and/or the nation as a whole. Maclise’s Britannia vignette from 1855 was depicted as a Saxon princess somewhat similar to a young Victoria, reclining in quiet confidence on a chair overlooking the sea and horizon (see figure 6.4). Like earlier versions of the Britannia, she was surrounded by national symbols: a frame of English oak leaves, a branch of laurels, and a shield bearing the red-on-white cross of St. George. However, her symbolic power should not be exaggerated. As David Blaazer has demonstrated, the Bank’s notes exhibited no blatantly nationalistic symbols until a Britannia ‘rising for war’ was depicted on the 1918 currency notes.<sup>130</sup>

#### *Translating immutability*

But though national symbolism might have played some role in building popular trust in the Bank’s notes, the translation of the universal gold standard’s inherent trustworthiness and immutability into paper notes was ultimately a technological achievement. As we have seen, monetary inimitability had been a technological feat even before the nineteenth century. By 1800, Matthew Boulton’s steam presses had made possible the stamping of uniform coins with smooth edges as well as regular thickness and diameter. His machines were tailored for the Royal Mint, and the details of manufacture kept secret from the public to prevent counterfeiting. This allowed the immutability and uniformity of the abstract standard to be translated into the material form of the minted coins themselves. The restriction period, however, raised the same

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<sup>130</sup> Ibid.

problems with regard to paper money, and the nineteenth century saw a rising concern with securing the credibility of bank notes in all domestic trade.

During the restriction period, the poorer classes used bank notes for the first time. The lack of technological sophistication made note counterfeit a relatively simple exercise, and authentic notes were correspondingly difficult to recognize. As a consequence, the security of the territorial currency depended primarily on the state's ability to prevent counterfeits. With the several hundred per cent increase in demand for small denomination notes, the traditional copperplate printing method began to prove inadequate to meet the demand both for a higher number of notes, and for uniformity of appearance. Poor and illiterate people with no former experience of using bank notes often had difficulties telling what made a note genuine, and indeed most of the over three hundred people who were transported to penal colonies or sentenced to death for passing forged notes between 1797 and 1817 belonged to the poorer classes.<sup>131</sup>

Because of the many executions, the pursuit of the inimitable bank note was seen partly as a philanthropic, humanitarian endeavour. However, this noble quest was hampered by weak links in the technological production chain. Copperplates wore out quickly and had to be replaced after only a few hundred prints (many would already have been used for printing higher denomination notes), and paper moulds needed high maintenance because of hard use. Furthermore, a constantly increasing number of hired engravers had continuously to reproduce new copies of the original design, which required much time, and made the reproductions only as uniform as their individual handiwork could be.<sup>132</sup> The consequent lack of standardization encouraged widespread counterfeiting. The design of the notes was relatively simple, and so any of the many thousand English copper engravers might imitate machine engravings used by the Bank without too much trouble. 'There never was any thing invented, which afforded so great a field to swindlers, as Paper Credit,' declared one writer in 1811.<sup>133</sup> At the Bank of England, printers Applegath and Cowper, who would later be serving in the printing offices of *The Times* (see previous chapter), spent several years attempting to improve on the Bank note, but without success. The Bank had let it be known that it welcomed suggestions from the public on whatever would render notes

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<sup>131</sup> Helleiner, *The Making of National Money*, 56. The crime of forgery was punishable by death until 1832.

<sup>132</sup> MacKenzie, *The Bank of England Note*, 40–56.

<sup>133</sup> Tickle, *Letters to a Friend*, 8.

more difficult to counterfeit. When the twenty-five years long restriction on cash payments was lifted in 1821, a pile of four hundred rejected suggestions for improvement lay in the dustbin, and the sole material result of years of experiments was a watermark that had been added to the paper in 1801.<sup>134</sup>

The problem was overcome through deliberate extensions of the chain of mediators. In 1819, the Society of Arts issued a report suggesting that the solution to the widespread forgery problem lay in the multiplication of skilled processes involved in note production. Using heavy and expensive machinery, employing expert engravers and engineers, as well as skilled artists, would make note forgery that much harder for the individual forger.<sup>135</sup> This ‘principle of a combination of the arts’ became the dominant paradigm in subsequent developments.<sup>136</sup> The same year, Jacob Perkins and Gideon Fairman had applied for a patent on a complex stereographic process that would allow the production of duplicated steel printing plates from imprints of other printing plates. The members of the Royal Committee (formed 1818)—many of whom were employees of the Royal Mint—lauded the combination of a wide spectre of techniques such as etching, machine drawing and handiwork on a single plate which could then be duplicated. By putting two months’ work by twenty-five artists into the production of the original plate, one could thus ‘concentrate the labour of *more than four years,*’ which would be enough to discourage would-be counterfeiters.<sup>137</sup> In other words, the authenticity of the notes could be guaranteed by the inimitable combination of industrial techniques and skilled artistry both mechanical and manual that no unauthorized person would be able to replicate.

In the following three decades, the Bank proactively connected itself to a range of inventors, engineers and skilled artists. In 1832, a delegation from the Bank of England visited the Bank of Ireland to inspect the printing methods of John Oldham, who during his time as chief engraver there had made several improvements to their printed notes. Oldham was invited to join the staff of the Bank of England, and was appointed ‘mechanical Engineer and Principal of the Engraving, Plate Printing, Numbering, and Dating Office’ in 1836.<sup>138</sup> His automatic dating and numbering

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<sup>134</sup> MacKenzie, *The Bank of England Note*, 49, 78.

<sup>135</sup> *Ibid.*, 66.

<sup>136</sup> *Ibid.*, 92.

<sup>137</sup> Quoted in Frances Robertson, ‘The Aesthetics of Authenticity: Printed Banknotes as Industrial Currency’, *Technology and Culture* 46, no. 1 (2005): 36. Emphasis in original.

<sup>138</sup> MacKenzie, *The Bank of England Note*, 87–90.

machine made counter-signing by hand (and hence eighty-four employees) redundant and secured a high degree of uniformity in the printed notes' appearance. When John Oldham passed away in 1840, his son Thomas took up his father's former position at the Bank. He suggested the practice of printing the cashiers' signatures instead of signing each note by hand, a change that was authorized in 1853 by an Act of Parliament.<sup>139</sup> Furthermore, the old watermark had not been of satisfactory quality. 'Imitative skills are great now-a-days,' warned Joseph Lockwood in his open letter to the Chancellor of the Exchequer in 1848, '[and] their [the Bank's] most perfect notes are imperfect.'

If you examine a few Bank of England Notes with care and attention, you will soon perceive that even those which are supposed to be of one kind, differ, very materially, if you hold them to a ray of light, magnify them with a glass, and slightly moisten them, you will see that the lines of the water marks are not all the same.<sup>140</sup>

In 1851, the Bank signed a deal with the firm of their former paper mould maker William Brewer, giving the Bank exclusive right to use his new watermarking machine, which went a long way in solving this problem. The same year, the Bank requested painter Daniel Maclise to design (as we have seen) a new Britannia vignette for the proposed new series of Bank of England notes.

However, the most important technological shift occurred in 1851, when former surgeon Alfred Smee introduced the idea of printing bank notes from electrotype plates, which would allow perfect replications of a single original plate.<sup>141</sup> Thus, a single engraving could serve as basis for new prints 'almost *ad infinitum*,' since the original did not have to be used in the process.<sup>142</sup> This 'combination of the arts' made possible the production of the 1855 note, which constituted a breakthrough in terms of counterfeit prevention. The immutability of gold and the power of the state to control the future could now be translated into paper objects at once mobile and unchanging.

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<sup>139</sup> A Parliamentary Act authorizing the printing of signatures on bank notes had indeed been passed in 1820, but this seems to have been overlooked. *Ibid.*, 106. Thomas Oldham passed away in 1851, and was succeeded by Henry Hensman and John Coe.

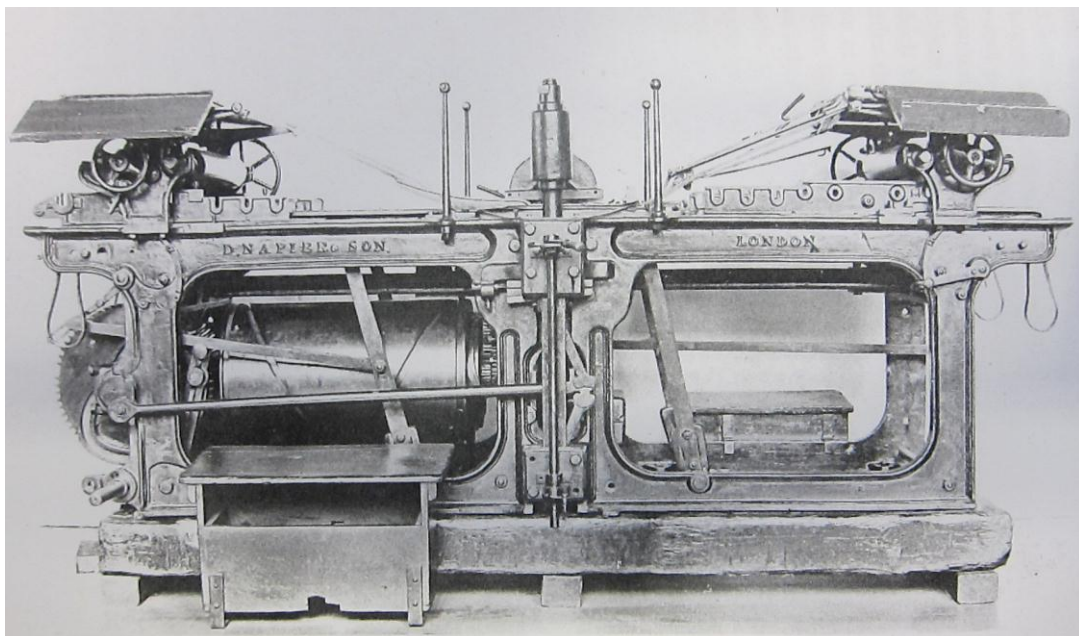
<sup>140</sup> Joseph Lockwood, *On the Forgery of Bank of England Notes, Official Stamps, and Other Public Documents; Being a Letter to Enlighten the Chancellor of the Exchequer* (London: Edwin Dipple, 1848), 4, 15.

<sup>141</sup> MacKenzie, *The Bank of England Note*, 97–100.

<sup>142</sup> Granville Sharp, *The Gilbert Prize Essay on the Adaption of Recent Discoveries and Innovations in Science and Art to the Purposes of Practical Banking* (London: Groombridge and Sons, 1854), 251.



The 1855 notes were produced through a combination of multiple techniques and processes. A copy of Maclise's original image and the other elements of the note were engraved on steel—an incredibly demanding job—by two of the Bank's veteran engravers, J.H. Robinson and John Thompson. After engraving a copy of the new vignette they then made another relief copy of the copy, which was then cut in copper by John Skirving, who had life-long experience as a typefounder's punch-cutter. This second copy was then placed in a locked safe (a so-called 'Smee cell') in which the process of electrodeposition could take place undisturbed overnight. The result of this process was yet another copy made of thin copper shells. These shells were made more solid by applying molten solder, planed down to the correct height after solidification, and then screwed onto a brass block.<sup>143</sup> The actual printing was performed on a platen press—a development of the traditional hand press, in contrast to the new cylinder presses used in newspaper printing but rejected for bank note printing—produced by the firm D. Napier & Son (see figure 6.5). Surface printing presses of this type had a weakness in that too high pressure might cause the ink to 'sink into' the paper. In order to avoid this, six different sheets were cut in order to match respective parts of the note, and reassembled to provide a 'backing' as the note was printed, distributing the pressure equally to each point of the paper surface.<sup>144</sup>



**Figure 6.5 – The Napier platen press**

<sup>143</sup> The combined height of the copy and the brass block would be the 'uniform height of type,' which in Great Britain is 0.9185 of an inch. MacKenzie, *The Bank of England Note*, 100.

<sup>144</sup> *Ibid.*, 99–105.

The ink itself was specifically made for the purpose of making forgery difficult. In 1854, the ink had been composed of vines and charred husks of Rhenish grapes, ‘mixed at the Bank with pure linseed oil, carefully prepared by boiling and burning,’ resulting in a ‘vinous refuse afford[ing] a characteristic velvety black.’<sup>145</sup> However, the production of ink for the new Bank note was entrusted to the printing ink manufacturers at Winstone & Sons Ltd., ‘as it required somewhat careful treatment for the peculiar arrangement of the blacks and lights in the note,’ as Smee explained. This process was no less intricate.

The black colouring material is made by burning coal-tar naphta, and collecting the smoke in large rooms. This smoke or lamp-black is placed in a retort, and heated to a high temperature, to drive off all volatile matters, when the ink becomes consolidated and improved in colour. This is subsequently ground with a suitable varnish to proper consistence to rest firmly on the delicate lines of the Britannia.<sup>146</sup>

Although Smee’s innovative printing methods received some criticism (mainly from former bank note engravers and printers whom his machines had put out of work) it remained, apart from a few occasional improvements, in principle unchanged until the First World War.<sup>147</sup> A completed Bank of England note was the combined result of contemporary art, highly skilled hand engraving techniques, and machine-drawn patterns, transmitted onto no less than nine different electrotype plates, each containing specific parts or levels of the final imprint and each of which could be changed at need without perceivable alteration in the finished note, and finally printed with the Bank of England’s exclusive ink.<sup>148</sup> In addition came the automatic enumeration and dating which was added to each individual note. There was no way individual copperplate printers could forge such a carefully assembled entity. As a result, following its introduction in 1855, Bank of England note forging practically disappeared overnight.<sup>149</sup>

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<sup>145</sup> Sharp, *The Gilbert Prize Essay*, 252.

<sup>146</sup> Alfred, F.R.S. Smee, “On the New Bank of England Note, and the Substitution of Surface-Printing from Electrotypes for Copper-Plate Printing, by Alfred Smee, F.R.S., Surgeon to the Bank of England,” in *Memoir of the Late Alfred Smee, F.R.S. by His Daughter, with a Selection from His Miscellaneous Writings* (London: George Bell and Sons, 1878), 309.

<sup>147</sup> In 1880 a new printing machine constructed by R.W. Munro was substituted for Napier’s platen press. This machine printed both the main design of the note and the number and dates in a single operation, producing 3000 notes per hour. Derrick Byatt, *Promises to Pay: The First Three Hundred Years of Bank of England Notes* (London: Spink, 1994), 106.

<sup>148</sup> MacKenzie, *The Bank of England Note*, 99–101.

<sup>149</sup> This evident efficiency led several other national banks to emulate to the Bank of England’s technique. See Helleiner, *The Making of National Money*, 59.

### *Authenticity made palpable*

The extensive network of mediators implicated in its manufacture effectively removed the Bank note from the realm of qualitative change. As Frances Robertson has argued, the visual rhetoric of technical illustrations on nineteenth-century bank notes participated in a wide cultural celebration of machines' capability to transcend the productive limitations of mere human hands.<sup>150</sup> But the new 1855 Bank note was not merely a text to be decoded;<sup>151</sup> it was a three-dimensional material object designed and manufactured for hands-on use. Its authenticity was established and affirmed through all bodily senses of hearing, touch, and sight.<sup>152</sup> Its tactile characteristics, as much as its visual appearance, were the results of the complex technological process that guaranteed the note's authenticity.

In 1856, Henry Bradbury, himself a printer, had lamented that the trust of the public in bank notes was invested solely in the quality of the paper, 'its peculiar colour ... its thinness and transparency ... its feel, crisp and tough, patent to the sense of touch alone.'<sup>153</sup> He warned about the danger of photography as a possible means for forging notes, and claimed that their sole security lay in the material quality of the paper itself, something which he considered dangerously inadequate.<sup>154</sup> Alfred Smee, on the contrary, saw the characteristic paper quality as one of the Bank note's particular strengths. 'To ensure as far as possible identity even in the paper, [machinery has been put up] in which all the improvements and adaptations heretofore adopted by machine paper are brought into operation for the Bank note.' In the 1880s, the printing process, the 'peculiar make' of the paper, together with the 'ingenious construction' of the printing machinery, had come to be considered a sight 'well worth seeing' for tourists visiting London.<sup>155</sup> A high number of visiting spectators were—despite a forgotten or ignored 1820 prohibition—admitted to the Bank's Printing Offices so they could admire the making of the money of civilization. The

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<sup>150</sup> Robertson, "Aesthetics of Authenticity," 35.

<sup>151</sup> Mary Poovey, *Genres of the Credit Economy: Mediating Value in Eighteenth- and Nineteenth-century Britain* (London: University of Chicago Press, 2008).

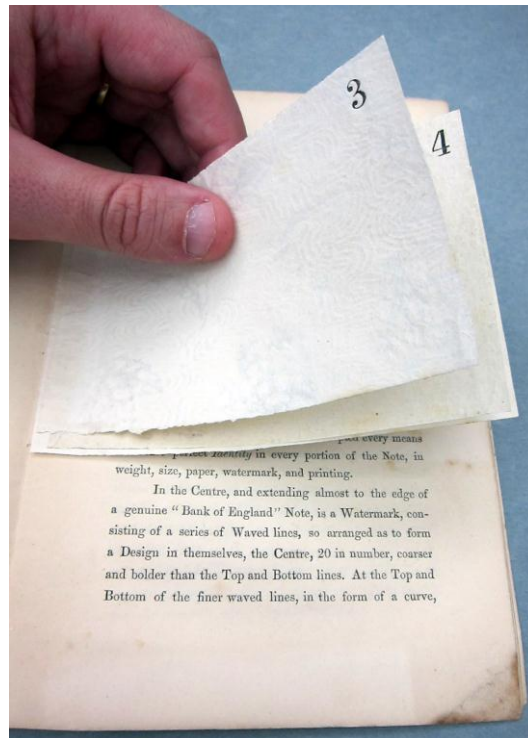
<sup>152</sup> Robertson, "Aesthetics of Authenticity," 38.

<sup>153</sup> Henry M.R.I Bradbury, *On the Security and Manufacture of Bank Notes* (London: Bradbury and Evans, 1856), 11–12.

<sup>154</sup> Bradbury, *On the Security and Manufacture of Bank Notes*.

<sup>155</sup> Anon., *London and Its Environs: A Practical Guide to the Metropolis and Its Vicinity* (Edinburgh: Adam & Charles Black, 1862), 139.

tour must have been exciting in more than one respect; a sign was fastened to the machines requesting the visitors specifically ‘not to touch the Notes.’<sup>156</sup>



**Figure 6.6 – W.H. Smith's pamphlet presenting the 1855 Bank of England note included paper samples for the public to feel and taste**

In his prize-winning 1854 essay on technological innovations and practical banking, Granville Sharp quoted an article from *Household Words* declaring that ‘[t]here is nothing like [the Bank note] in the world of sheets.’<sup>157</sup> The colour, thinness, strength, watermark, and peculiar feel of its paper afforded the new Bank note both ready recognition *and* inimitability, he argued.<sup>158</sup> Smee underlined the importance of preserving the same tone of colour in the notes, so ‘that the public may be familiarized with a constant standard, and a uniform appearance will be marked in their mind.’<sup>159</sup> In his informative pamphlet on the new Bank note of 1855, W.H. Smith (of book-selling fame) argued that notes were not meant merely for the literate population, and even suggested putting the note in one’s mouth to ascertain its authenticity: ‘[a] very simple and ready method of testing the Watermark in a Note, is by pressing either side of it against the Tongue, or damping it; if genuine, the

<sup>156</sup> MacKenzie, *The Bank of England Note*, 125.

<sup>157</sup> Sharp, *The Gilbert Prize Essay*, 247.

<sup>158</sup> The essay question of the competition was ‘In what ways can any of the articles collected at the Great Exhibition of 1851 be rendered serviceable in the interests of practical banking?’ *Ibid.*, 245–6.

<sup>159</sup> Smee, “On the New Bank of England Note,” 311.

Watermarking will appear brighter than it formerly was; if put in by pressure, rolled, or stamped, it will disappear' (see figure 6.6)<sup>160</sup>



**Figure 6.7 – W.H. Smith's pamphlet presenting the 1855 Bank of England note included comparative illustrations of the old and new watermark**

The watermark itself was hence both visible and palpable, and this was considered by contemporary commentators to be another mark of the note's high quality (see figure 6.7). Smith described how the new note was distinguished by how the thickness of the paper itself followed the visual patterns of the watermark.

In the Genuine Note, the Watermark, is clear and distinct, and of different gradations, and brightest in the thinner portions of the paper: in a counterfeit it is generally all of one colour....In the New Note, the paper is considerably thicker in the dark shadows of the centre letters and the figures at the ends. The shadows will be seen by holding the Note up to the light; when down, the shadows, also the centre and ends, look *Whiter* than the other parts of the paper, by reason of there being a greater *Body of pulp*, rendering them thicker and consequently more opaque, thereby causing it to appear as a dark graduated shadow; if this was a pressed forgery, the paper would be of one uniform thickness.<sup>161</sup>

Smee made sure to point out how from a 'philosophical point of view' the similarity of the new notes was only apparent; strictly speaking, perfect inimitability was

<sup>160</sup> W.H. Smith, *How to Detect Forged Bank Notes* (London: Royal Exchange, 1855), 13.

<sup>161</sup> *Ibid.*

impossible. ‘The time has long since passed away when scientific men would think of attempting to devise an inimitable note.’ However, he argued, a certain ‘constancy of appearance is of paramount importance [in commerce], and in this particular the new ... note stands pre-eminent.’<sup>162</sup> For the general public, Smee stated, the new Bank notes were, for all practical purposes, *as if* removed from the realm of change and qualitative variation. The new printing process evacuated the original design and the finished notes equally from the deteriorating effects of time. The electro-metallurgic duplication process left the originals untouched (as we have seen, only engraved copies were used in actual printing), and hence, he said, the originals would ‘retain their integrity for any length of time without change.’<sup>163</sup> The printed Britannia vignette remained ‘line for line invariably the same. The same expression of face is constantly maintained ... Not the slightest variation within certain limits ... exist.’<sup>164</sup> The notes’ evacuation from the realm of change secured their authenticity and the public’s trust.

Day after day, and year after year, the character of the paper will not vary. The same signature of “Mr. Marshall” which appears in the paper of one note will be repeated in the next. The same wave lines, the same rough edges on three sides, the same shadows in the water-mark will be brought continually before the sight. The Britannia will have the same expression of countenance, and will be repeated line for line, and dot for dot, for millions of impressions unchanged and apparently unchangeable. The very weight of the paper does not vary above two or three grains, unless damaged by wear, and the colour of the ink will be maintained as far as possible. As the stone is worn by water constantly dropping, so will the mind be impressed with one uniform appearance.<sup>165</sup>

Only in the future, suggested Smee, would full inimitability be actualisable. However, through the meticulous manufacture of the present note, through the multiplication of nodes in the production network—involving both human expertise and complex, expensive machinery—the present note was evacuated, as it were, from this potential future and actualized in the present, where it arrived unhampered by time’s passage. The complex and careful construction of the Bank note allowed it to move in a secular time independent of its motion, and thus it could serve as ‘real’ money—the absolute measure of all other commodities. The immutable gold standard was thus translated into moveable pieces of paper.

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<sup>162</sup> Smee, “On the New Bank of England Note,” 311.

<sup>163</sup> *Ibid.*, 301.

<sup>164</sup> *Ibid.*, 311.

<sup>165</sup> *Ibid.*, 312.

## MOVING STANDARDS

In principle, the gold standard was abstracted from the fluctuations and qualitative movements of the world, conceived as a stable and fixed measure of all values and developments. We have seen how this abstraction was translated into material objects, whether gold coins or, as during the Victorian period, Bank notes, which were hence transformed into immutable mobiles – moveable objects embodying the characteristic immutability of the abstract standard. In this way, secular time was mediated through simple slips of paper passing through the hands of the population. But precisely in the event of transformation there arose a temporal paradox akin to the ones we have discussed in the preceding chapters. As a universal standard, the commodity of gold moved in a time independent of change; yet as a commodity, it was itself subject to the same fluctuations as any other commodity. Indeed, the translation of abstract immutability into actual moveable objects was made possible precisely by the qualitative transformations the objects underwent during the translation process.

This paradox was evident even in the case of gold itself. The reason gold was considered suitable as ‘anchor’ for the economic system in the first place lay in its material properties, in particular its *relative* immutability. In 1805 Lord Liverpool put it thus:

In all civilized nations, Money has been made either of Gold, Silver, or Copper, frequently all three, and sometimes of a metal composed of Silver and Copper, in certain proportions, commonly called Billon. It has been found by long experience, and by the concurrent opinion of civilized nations in all ages, that these metals, and particularly Gold and Silver, are the fittest materials, of which Money can be made.<sup>166</sup>

Knight’s *English Encyclopedia* (1866) further described how gold was fitting for the purpose of universal standard of value, because as a substance it underwent no change over time:

[A]n ounce of pure gold extracted from the earth 100 years ago is of precisely the same quality as an ounce of pure gold got yesterday. Exposure to weather, the scorching sun, or the rigour of frost, produces no deterioration in its quality. From all which it follows, that the relative weight of any portion of it determines at once its relative quantity and value to every other portion. Two ounces of gold are worth exactly twice as

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<sup>166</sup> Liverpool, *Treatise on the Coins of the Realm*, 9.

much as one...it is not liable to corrode or rust, and therefore is fitted to the purposes of a circulating medium.<sup>167</sup>

However, the article went on to describe how gold in fact failed to embody its own characteristics. In order to ‘resist friction, to a very large extent, for a great length of time,’ it must be ‘properly treated,’ for example by alloying it to other metals, such as copper.<sup>168</sup> Gold was thus fit to be an abstract universal standard because it was inherently immutable; and yet, its immutability had to be carefully constructed through alloys and combinations with other substances. In its pure form, apart from such processes, even gold was unfit to embody the ‘gold standard.’

Inventor Sir William Congreve put it thus during the restriction period: ‘[t]here is, in fact, no such thing as a *constant value* to be found in any *single* commodity or *tangible* shape, be it gold, or silver, or any thing else: such a thing exists not in society, in any palpable form.’<sup>169</sup> John Rooke, a Cumberland landowner writing extensively on issues of political economy, concurred. ‘[T]o make the precious metals, or any other precious commodity, the standard of real value is quite absurd,’ he stated.<sup>170</sup> ‘[N]o fixed metallic standard can be invariable in value where the precious metals are circulated.’<sup>171</sup> In a passage that revealed his well-known personal interest in geology, Rooke went on to discuss how gold was inexorably immersed in the qualitative changes of the world, and hence not at all a fixed standard.

Heat and cold, the want of moisture and its excess, storms, the various tribes of insects and the diseases of plants, are ever causing the annual produce of the earth to vary. These, added to the speculations of merchants, the rise and fall of credit, the constant variations that take place in the quantity of money, and the influence of fashion, with other moral and intellectual causes, produce a continual fluctuation in the market prices of commodities in general ... Population is always multiplying or diminishing – the industry, the skill, and the artificial facilities of labour are ever varying; and cultivation is uniformly causing the earth to become more or less productive, according to the system of agriculture pursued. The precious metals laid the original basis of our monetary system; but the

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<sup>167</sup> Charles Knight, *Arts and Sciences: Or, Fourth Division of “The English Encyclopedia”* (London: Bradbury, Evans & Co., 1866), 452.

<sup>168</sup> *Ibid.*

<sup>169</sup> Congreve argued, somewhat before his time, that there was no ultimate need for any single standard of value of any kind, but that the value of a representative currency should be calculated by ‘the average of *all prices*.’ Congreve, *On the Impracticability of the Resumption of Cash Payments*, 37.

<sup>170</sup> John Rooke, *Remarks on the Nature and Operation of Money, With a View to Elucidate the Effects of the Present Circulating Medium of Great Britain; Intended to Prove That the National Distresses Are Attributable to Our Money System, by Cumbriensis* (London: Baldwin, Cradock, and Joy, 1819), 75.

<sup>171</sup> John Rooke, *A Supplement to the Remarks on the Nature and Operation of Money, &c. by Cumbriensis* (London: Baldwin, Cradock, and Joy, 1819), 97.



depreciation of coined money, the variable productiveness of gold and silver mines, and their wear, loss, and application to purposes of use and ornament, render them, naturally, a variable standard of value.<sup>172</sup>

For Rooke, the world was a chaotic system of unpredictable movements and relations, in which gold was fully implicated; its value was subject to ever-changing circumstances. Precious metals might be mentally evacuated from the realm of change in order to function as a universal standard beyond the realm of change; materially, however, they were as entangled in ‘a constant train of fluctuation’ as everything else.

Indeed, it was generally acknowledged that the ‘intrinsic’ value of gold was in fact secured not (solely) by its inherent properties, but rather by the collective decision of an autonomous ‘society.’ ‘We have selected gold, out of all the commodities of the world, as the least fluctuating in value, according to the demand for it in the market,’ wrote banker James W. Bosanquet in 1842. ‘Nevertheless, no one will deny that gold itself, like linen or cotton, is liable from time to time to variation in value, according to the demand for it in the market.’<sup>173</sup> Gold was a commodity, and as such subject to the fluctuations of the ‘economy,’ the very entity whose abstract universality in secular time it otherwise guaranteed. Its function as a universal measure was premised on its moving in a time independent of its motion. Yet at the same time, as a commodity, it was subject to the very same fluctuations as other commodities – its universality had to be sanctioned by the civilized collective. Hence, its status as universal measure of value was premised on the mobilization of collective sanction from the very ‘social’ forces it was to be independent from; its evacuation into a secular time was premised on mobilizing forces of historical time.

This problematic was brought to the fore around mid-century, when large quantities of gold were discovered in California (1849) and Australia (1851). From the 1840s to the 1850s the world’s annual production of gold increased nearly threefold.<sup>174</sup> While some saw these discoveries as ‘providential solutions to the problem of liquidity posed by the return to convertibility and the Bank Charter Act,’ since the increase of

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<sup>172</sup> Rooke, *Remarks on the Nature and Operation of Money*, 3–4.

<sup>173</sup> James Whatman Bosanquet, *Metallic, Paper, and Credit Currency, and the Means for Regulating Their Quantity and Value* (London: Pelham Richardson, 1842), 12.

<sup>174</sup> Jeffrey A. Frieden, “The Dynamics of International Monetary Systems: International and Domestic Factors in the Rise, Reign, and Demise of the Classical Gold Standard,” in *The Gold Standard in Theory and History*, ed. Barry Eichengreen and Marc Flandreau, 2nd ed. (London and New York: Routledge, 1997), 214.

gold conveniently coincided with English commercial expansion,<sup>175</sup> others saw the increase of gold in the world as posing problems for the notion of a gold standard that was in principle supposed to be set apart from such fluctuations. Would these fluctuations lead to a depreciation of gold itself? The value of gold as a commodity was subject to demand (and to the varying costs of mining it), and in response to the sharp decrease in its market price many countries still on bimetallic standards either re-adjusted their gold-silver rate, or simply demonetized gold, effectually moving towards a pure silver standard.<sup>176</sup> While Britain came through the resulting disturbances largely unscathed, other European states struggled to stabilize their domestic economies. Ultimately, a gold standard was more convenient when trading with London, the world's financial centre at the time, and for this reason, most European states adopted it by the 1870s.<sup>177</sup> Domestically, the increase of gold in the Bank's reserves provided a 'sound basis' for printing more notes without breaching the limits of the 1844 Act. Internationally, however, the choice of gold for the purpose of universal standard of value—the establishment of its independence from qualitative changes and historical indeterminacy—borrowed its legitimacy from a global public opinion which itself changed and fluctuated depending on the availability of gold as a commodity, and its relative convenience as a measure of value.

A similar paradox was evident in the case of Bank notes. This chapter has described how secular time was invested in Bank of England notes through complex technological processes of production. At the same time, Bank notes were the material expressions of an economic sphere which was constantly changing and mutating; that is, manifesting historical change. This problematic was described by MP George Poulett Scrope (quoted above) in 1830. All exchange required some passing of time, he argued, and this inevitably implied essential change (however small) in the commodities traded, including in the value of money itself. Because absolute simultaneity was impossible in actual economic transactions, Bank notes would always be out of synchrony with the universal standard they supposedly embodied.

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<sup>175</sup> Martin J. Daunton, *State and Market in Victorian Britain: War, Welfare and Capitalism* (Woodbridge: The Boydell Press, 2008), 7, 228–244.

<sup>176</sup> Wilson, *Battles for the Standard*, 29.

<sup>177</sup> Frieden, "The Dynamics of International Monetary Systems."

All this [trading] is on the supposition that, *during* the process of exchanging commodities, *no* alteration in the value of the medium takes place. But this is never practically the case. Money is not made use of only as a measure of the relative value of goods *at one and the same time*. On the contrary, nearly all transactions regarding the exchange of commodities occupy more or less time. If then during the time that elapses between the evaluation of money of the one commodity and the other, or between the agreement of a money-contract and its fulfilment, any change takes place in the general value of money as compared to commodities at large, it is clear that in this instance money is a false and incorrect measure, and that the one party has to pay, and the other to receive, a larger or smaller exchangeable value than he [sic] bargained for; Thus an element of great uncertainty is introduced into all dealings; namely, variations of the exchangeable value of money itself, the assumed standard of value; - variations which is impossible for persons in business to foresee, owing to the complicated and remote nature of the causes that bring them about.<sup>178</sup>

The value of Bank notes was hence not grounded in an abstract standard, but in a collective silent agreement.

Thomas Oldham, printer at the Bank of England, encountered a similar problem when he considered how to secure the inimitability of Bank notes over time. In 1850 he wrote to the Governor of the Bank about the need for renewing the Bank notes on a regular basis, in continuity with changing artistic standards.<sup>179</sup> Oldham was sceptical of what he saw as the exaggerated trust in technological finesse displayed by the Royal Commission in its support of printers Applegath and Cowper. The two printers had, he pointed out, in fact failed to create inimitable notes despite expensive machinery and several years of effort. The Commission had nevertheless been ‘quite captivated’ by the two printers’ machines and industrial drawing techniques and wrongly assumed, argued Oldham, that mere technological execution would secure notes against forgery. ‘The Royal Commission contained a majority of scientific men, and, as might be expected, they applied themselves to the subtleties of art, rather than its beauties.’<sup>180</sup>

Instead, Oldham proposed to secure inimitability by grounding the note design in the essential character of the present age, as it manifested in contemporary artistic achievements. Even those who had long opposed altering the note design would have to admit, he stated, that historical progress had made a return to earlier designs

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<sup>178</sup> Scrope, *On Credit Currency, and Its Superiority to Coin, Etc.*, 21 Emphasis in original.

<sup>179</sup> Thomas Oldham, *A Report on the Improvement of Bank Notes; with a Plan for Facilitating Their Production and Economising Their Expense*, (London?: s.n., 1850).

<sup>180</sup> *Ibid.*, 14.

impossible. ‘They would not return to the Note of fifty years since, and for the same reason the present Note will not answer fifty years hence.’ The note of the present must necessarily be different from the note of the past; the note of the future must necessarily be different from the note of the present. Continuous reform and remaking of the note was necessary.

[T]he longer emendation is delayed, the stronger will be the disposition of those, anxious for improvement, to make a wide stride from the present inferior grade of art to something strikingly better, just as any current will burst its bounds when dammed up too long, doing mischief where it should secure advantage... Therefore, withholding permission for gradual emendation at a seasonable moment, is virtually promoting those offensive outbreaks, in making and unmaking things, which we have only too much evidence of from day to day; and Notes, like most things, are subject to the universal principle.<sup>181</sup>

Oldham described each finished note as a ‘freezing’ of historical time, a ‘damming up’ of history’s onward-rushing current; each finalized note embodying an abstraction from the current’s fluctuations and movements. However, the current of history would move onwards, while the note would be left behind, becoming increasingly irrelevant. Therefore, Oldham argued, the design would have to be renewed on a periodical basis, at ‘seasonable moment[s],’ so as to be kept ‘up to date’ with the latest and most refined artistic developments.

A Note is not a relic of former art, to be preserved like some old etching, which however crude and faulty it may be, is interesting and valuable as a record of art at some particular era. A Note belongs to to-day, and will belong to to-morrow as much as it did to yesterday. It is therefore amendable to the gradual changes that time must work, sooner or later, on everything pertaining to art, as applied to purposes of ornament or mere utility; and discretion and good taste will decide upon their manner and extent, and the moment best suited for their accomplishment.<sup>182</sup>

Oldham’s letter was ripe with temporal paradoxes. Bank notes were to embody the abstract measure of value; that is, they must be evacuated from the qualitative changes of historical time, and move in secular time. Yet in order to achieve this, they must be made to embody the quality of the historical present. Their mediation of secular time could only be achieved through the mobilization of the elements embodying the particular quality of the historical moment – namely, for Oldham,

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<sup>181</sup> Ibid., 16.

<sup>182</sup> Ibid., 15.

artists. Furthermore, the ‘popular appreciation’ of Bank notes—that is, the continuous sanctioning by the ‘social’ collective required to sustain their value—could be secured only by removing Bank notes from the realm of this collective by making them inimitable (which, again, was only possible by mobilizing that very collective). The inimitable note must preserve its independence from historical qualities precisely through embodying the very quality of the historical present.

Oldham’s successor, Smee, did not, as we have seen, share his predecessor’s unease about technology. In many ways, his 1855 note was considered a near perfect embodiment of the abstract and immutable gold standard due to its complex technological genesis – indeed it underwent only minor changes over the next half of the century (see figure 6.8).<sup>183</sup> Nevertheless, the process of its production was itself a qualitative upgrading, to such a degree that once it had been completed, a note could never be returned to its former composites. ‘When the note returns to the Bank, after inspection, it dies, never to be resuscitated,’ Smee explained in a lecture on the production process and circulation of Bank notes. ‘The signature is torn off, the denominations are punched out, and it becomes a piece of waste paper...[I]t is then deposited in the vaults for [public] reference for ten years, when it is burnt.’<sup>184</sup> Burning was necessary because reusing any material component of the notes had proven futile.

Experiments have been tried to reduce them again to pulp [from which new paper commodities could be made], but they have never succeeded, and no plan answers so well as their destruction by fire. A large iron cage is built in the middle of the yard, including a light brick furnace pierced with holes. In this cage the notes are placed and burnt by sackfuls at the time, and nothing is left but a little white ash.<sup>185</sup>

Put another way, a note’s past was so different from its present that the qualitative gap between the two could not be bridged.

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<sup>183</sup> Oldham could not have foreseen that Smee’s introduction of electrotyping and further complication of the printing process five years later would almost eradicate forging. The only part of the 1855 Bank note that could be said to follow Oldham’s suggestions, was Maclise’s *Britannia*, which was pre-Raphaelite in style and as such ‘up to date’ with the latest artistic developments, at least at the time it was introduced.

<sup>184</sup> Smee, “On the New Bank of England Note,” 315–16.

<sup>185</sup> *Ibid.*, 316.



**Figure 6.8 – Bank of England £5 note, 1893**

As noted above, Smee realized that his note was not absolutely perfect. Indeed, he said, even ‘[t]o attempt to construct an unforgeable or inimitable note would be a mere delusion and snare.’<sup>186</sup> He nevertheless believed that historical progress would eventually achieve precisely such perfection. ‘We are all apt to think that art will stop at our point, and not progress, but it is the property of invention ever to move forward. The point at which we have arrived must be the step from which future improvements must spring, and proceeding step by step, the highest possible excellence will doubtless eventually be secured.’<sup>187</sup> Smee’s faith in such progressive development was not due to a trust in the abilities of specific persons or inventors, but rather in the quality of the historical age itself. History revealed, he argued, ‘that invention is rather due to the period than to the man.’ The successful removal of Bank notes from the realm of qualitative change was based on their own qualitative upgrading; their embodiment of a universal standard beyond all movements was achieved through an extensive mobilization of such movements; and their evacuation into secular time was premised on their meticulous manufacture in and through historical time.

## CONCLUSION

The Victorian period saw a gradual integration of a national economy, conceived as a totalized and synchronous whole, and Bank of England notes were a key technology in this process. Whereas earlier, their value had been guaranteed through the state’s punitive system and prerogative to claim taxes in the future, the early nineteenth century saw an extensive mobilization of human skill and sophisticated technology—reaching a temporary apogee in 1855—through which the value of Bank notes was

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<sup>186</sup> Ibid., 312.

<sup>187</sup> Ibid., 313.

secured by force of technological inimitability. Thus, Bank of England notes were made to embody the immutability of the abstract gold standard, acquiring a function as immutable mobiles which might be moved—again, through an abstract secular time independent of motion—between the metropolitan central Bank and local banks without deterioration. Thus, Bank of England notes mediated—and were actively invested with—secular time.

However, as in the cases of railways and news networks, the temporal logic of the Victorian ‘economic’ imaginary was by no means purely secular in the way Taylor suggests. Instead, its paradoxical dynamic emerged precisely from the very intersection of a *secular* time in which everything was commodified and measured quantitatively, and a *historical* time of qualitative growth, where money ‘organically’ gave birth to more money. Whereas secular time allowed the grasping of the national economy as a singular entity, historical time allowed this very entity to be endowed with certain characteristics manifesting its ‘civilized’ essence. Secular time allowed a selected commodity such as gold to be abstracted from the fluctuating forces of the market, whereas the technological translation of the abstract standard’s immutability into Bank notes required a wide mobilization of historical forces and processes. The intersection of historical and secular time allowed both the establishment of an immutable standard, *and* the ceaseless qualitative mutation of the autonomous ‘economic’ sphere.

## 7. CONCLUSION

### A postsecular account of Victorian secularization

Small and simple things may facilitate everyday performances that are ultimately premised on complex and counterintuitive ideas. Equally, taken-for-granted ideas might in fact require the mobilization of extensive material networks in order to maintain their status as ‘given.’ This thesis has sought to show how three Victorian human-technological networks comprising small and simple objects and the collective performances associated with their use mediated complex and indeed contradictory conceptions of time. In particular, the thesis has sought to demonstrate how railway travellers, news information, and Bank of England notes were—in various ways—transformed into immutable mobiles, moving—by implication—through a secular time independent of their motion. In the case of Victorian railways, numerous actors were mobilized so that passengers’ journeys might be as friction-less as possible. In the case of newspapers, news items were evacuated from the fluctuating and unpredictable weather conditions that had hampered their circulation for centuries, and made to travel through telegraph wires across the globe without (ostensibly) undergoing any change. In the case of Bank of England notes, humble bits of paper were eventually made to embody the immutability of an abstract gold standard even more successfully than actual gold coins. In this sense, the meticulous—though never perfect—manufacturing and maintenance of immutable mobiles amounted to an investment of secular time on the level of taken-for-granted assumptions underpinning collective practices.

Equally, the thesis has sought to show how—on this very same level—a different kind of time was embedded and performed: a time of qualitative change and duration, as manifest in particular features characteristic of distinct historical ‘ages.’ Each of the networks examined manifested the essential attributes of the ‘present age,’ marking a qualitative break from the past. The railway signalled an end to the ‘old’ world of limited mobility and neighbourly, parish-based community; the newspaper press became a ‘fourth estate,’ enabling the representation of a ‘civilized’ ‘public opinion’ above and beyond parliamentary politics; whilst Bank of England notes embodied an abstract gold standard whose inherent rationality promised progressive



prosperity as well as stability amidst unprecedented levels of domestic and international commerce.

An important aim of the thesis has been to draw upon *and* critique the work of Charles Taylor: on the one hand, it has sought to further his investigation of the modern social imaginary—emphasising its material mediation in particular—and the mutations in its temporal dimension in the context of Victorian England. On the other hand, it has sought to contest his claim that, at this level, secular time was the exclusive conception of time. By contrast, it has argued that the mediation of *secular* time—and its realization through meticulous technologization and coordination—was coupled with the mediation of a *historical* time manifest in the networks’ characteristic features and qualities: the frictionless journey of the railway passenger was achieved by actively and irreversibly altering urban and rural topographies; the evacuation of transmittable news items from the unpredictable forces of the world made possible the ‘immediate’ access to the current state of a dynamic and increasingly ‘civilized’ public opinion; whilst securing the abstract immutability of state-sanctioned Bank notes enabled the integration of the national economy as a single and simultaneous entity, as well as its appropriation of a hitherto unprecedented ‘civilized’ and ‘modern’ historical quality.

The thesis has focussed on railways, newspapers, and monetary networks, but other human-technological assemblages might have been selected. Maritime technologies helped to pioneer the development of mechanical clocks, disciplinary timekeeping, and accurate time measurement; or again, industrial machine ensembles were—as E.P. Thompson famously argued—an important material site for the instigation of ‘modern’ time consciousness.<sup>1</sup> In a similar vein, this thesis has not considered the phenomenon of ‘leisure time’ and its associated forms of entertainment, such as music, art, or indeed sport – which after the invention of stop-watches towards the end of the century developed unprecedented temporal dynamics;<sup>2</sup> nor again has it engaged with Taylor’s often overlooked example of ‘fashion’ as a serially performed ‘space of ... horizontal, simultaneous mutual presence [and] display,’ carrying notions of both autonomy and secular time (and, one might add, involving a wide

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<sup>1</sup> E.P. Thompson, “Time, Work-discipline and Industrial Capitalism.” As noted earlier in the thesis, this argument has been critically developed and complicated by Glennie and Thrift. Paul Glennie and Nigel Thrift, “Reworking E.P. Thompson’s ‘Time, Work-Discipline and Industrial Capitalism’.”

<sup>2</sup> Dennis Brailsford, *Sport, Time and Society: British at Play* (London and New York: Routledge, 1991); Steven Connor, *A Philosophy of Sport* (London: Reaktion Books, 2011).

range of mundane technologies, not least clothes).<sup>3</sup> Furthermore, several topics touched upon in the thesis warrant more attention than they have received. More could have been made of how the civilizational perspective was not only discernible in the printed genres of liberal imperialism and urban investigation, but indeed was performed through intricate material networks. Likewise, technologies such as the electric telegraph were central to temporal control and ordering across the geographies of the British Empire; and indeed the history of telegraphy was much richer and more intricate than suggested in the present account of its role in news communication.<sup>4</sup>

In short, other networks and social imaginaries might have been considered, and the present study does not pretend to be in any way comprehensive. Nonetheless, the juxtaposition of the three human-technological networks examined in this thesis suggests parallels that are of interest to larger debates regarding Victorian modernity, in particular its definition and periodization. One striking parallel is simply this: that though their associated practices—train travelling, newspaper reading, and the everyday exchange of Bank notes—became mass phenomena only towards the end of the century (or, in the case of Bank notes, only after the First World War), the emergence and consolidation of ‘the nation,’ ‘public opinion’ and ‘the economy’ as technologized, synchronic (secular) and diachronic (historical) systems dates to the three decades between 1830 and 1860. Though this thesis has deliberately—and consistently, in keeping with its conceptual thrust—sidestepped historiographical debates regarding the exact periodization of the ‘Victorian period’ (at once, one might note, an ‘empty’ interval and a distinct set of qualities), this coincidence is nonetheless remarkable, and suggests that on one level—the level of the social imaginary—the early Victorian period (contra the recent thrust of revisionist literature) was in fact crucial.<sup>5</sup> Indeed—and more speculatively still—it suggests that historians may have much to learn from (re)turning to more structural approaches and levels of analysis, away from ‘cultural’ questions of identity, discourse and representation.

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<sup>3</sup> Charles Taylor, *A Secular Age*, 481.

<sup>4</sup> Glen O’Hara, “New Histories of British Imperial Communication and the ‘Networked World’ of the 19th and Early 20th Centuries,” *History Compass* 8, no. 7 (2010): 609–625.

<sup>5</sup> See Richard Price, *British Society 1680-1880*; cf. Martin Hewitt, “Why the Notion of Victorian Britain Does Make Sense.”

Obviously, people did not necessarily participate in these temporal-technological networks in the ways officially intended. Some might want to argue that the thesis has failed to account for (or even mention) the range of reactions to the temporality ingrained in the structures themselves; that there were as many ‘subjective’ experiences of time as there were individuals encountering the ‘objective’ time of the network, so to speak. Such ‘subjective’ reactions might then be described in different ways: as an irreducible plurality of ‘other’ times, all ‘out of joint’ with the (assumed) reductive and monolithic temporality inherent to modernity – perhaps signalling budding ‘postmodern’ temporalities;<sup>6</sup> or as simply so many varieties of a primordial human need to overcome—through epiphanic experiences or political activism—the brute and meaningless fact of the time of ‘Chronos’ rushing us towards our inevitable death.<sup>7</sup> Indeed, approaches of this kind are largely compatible with that of Taylor, who—as described in the introduction—relegates ‘non-secular’ times to the status of ‘reactions’ stemming from irreducibly human and deep-seated longings for ‘fullness.’

However, this thesis has deliberately sought to avoid—and indeed to challenge—these kinds of approach, because they seem to rely on an altogether unhelpful antagonism between the ‘objective’ ‘reality’ of time and its ‘subjective’ ‘experience.’ By contrast, the argument presented here has insisted that the temporal dimension of the Victorian social imaginary was itself dialectical and contradictory. Put another way, it was *not* an issue of a single ‘objective’ temporality spurring various ‘subjective’ reactions, but rather of the temporal dimension of Victorian modernity itself comprising at once *two* kinds of time. The temporal paradoxes examined in the foregoing chapters, then, did not arise from encounters between ‘external,’ ‘objective’ circumstances and ‘internal,’ ‘subjective’ experiences, but from a constitutive contradiction in the temporal structure of the social imaginary itself. Furthermore, whilst this temporal dialectic underpinned various discourses and concepts such as periodization, unequal development, and civilizational progress, it was not restricted to a linguistic or discursive realm somehow detached from (and thus merely ‘representing’) ‘objective’ reality. Rather, the thesis has insisted that the temporal dialectic was embedded on the level of material and technological performance. Indeed, this insistence on materiality is what has enabled the thesis to make an

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<sup>6</sup> See e.g. Elizabeth Deeds Ermarth, *Sequel to History*; Nowotny, *Time: The Modern and Postmodern Experience*

<sup>7</sup> See e.g. Roger Griffin, *Modernism and Fascism*; Luciano Pellicani, *Revolutionary Apocalypse*.

analytical distinction between the two kinds of time in the first place, precisely because it rules out any attempt to reduce one (subjective or imaginary) time conception to another (objective or real). Historical time and secular time were *both* implicit in the temporal structure of Victorian modernity; both were performed materially; and both, so to speak, were at once imaginary and real.

In turn, this analytical distinction between historical time and secular time allows for a more precise definition of the latter. The thesis has partly followed Taylor in acknowledging (albeit with a less ‘apologetic’ intent) the importance of theological speculation in the conceptual genealogy of secular time. However, the genealogy presented in chapter 3 pursued a less-travelled path, connecting the concept of secular time that was developed and refined in scholastic angelology with Latour’s concept of immutable mobiles. Not only is the definition of secular time which emerges from this genealogy more precise than those found in existing scholarship (avoiding the conflation of ‘secular’ and ‘ordinary,’ for instance); the Latourian link also enables historians to use the conceptual tool of immutable mobiles for locating secular time in material networks, and in turn to examine its contested and meticulous construction and maintenance by mobilized mediators. Hopefully, this might prove useful both in histories associated with the ‘material turn’ (whose use of immutable mobiles is often limited to inscriptions on paper) and to histories of secularization.

And it is primarily to this latter historiography that the thesis offers itself as a contribution – as, more precisely, an avowedly postsecular inquiry into the question of Victorian secularization. But what precisely does the term ‘postsecular’ mean in this instance? As was noted in the introduction, the precise meaning of the term is widely contested. If emphasis is put on its prefix, it might be taken as denoting a historical period that follows after (‘post’) a period somehow characterized by secularity. ‘Postsecular’ might then, for instance, be understood as referring to the characteristic historical quality of a recent period of (Western) development—a period, it should be noted, equally ‘post-Christian’—which has ‘come through’ the Enlightenment storm of ‘secular reason,’ having lost its strict dogmatism, yet nonetheless kept its sense of awe in the face of ultimate questions.<sup>8</sup> Late modern phenomena such as resurgences (private or public) of traditional religions or the

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<sup>8</sup> On ‘postsecularity’ referring to a culture that has ‘come through’ secularity, see e.g. John D. Caputo, *The Weakness of God: A Theology of the Event* (Bloomington, IN: Indiana University Press, 2006).

proliferation of idiosyncratic, ‘pseudo-religious’ outlooks, might then be taken as indicative of the present being a ‘postsecular age.’

However, as we have seen, Taylor’s thesis makes room for all of these ‘postsecular’ phenomena, and nonetheless ultimately insists on a process of secularization taking place on a ‘deeper’ level, leading to precisely ‘a secular age.’ Put another way, such evocations of the term ‘postsecular’ only tend to obscure the more subtle and ‘deep’ secularity revealed by Taylor’s revised secularization thesis: although ‘postsecular’ surface phenomena might indicate a certain complexity, secularity—as a temporal form—remains a more fundamental structural feature of modernity. Indeed, in its most common uses, the term ‘postsecular’ arguably exhibits—to echo Latour—a kind of ‘hypocritical tolerance:’ in the very act of deliberately seeking to let the ‘religious’ be understood ‘on its own terms,’ scholars take a self-consciously generous stance towards phenomena that are implicitly understood as stemming from a kind of humanly ‘necessary irrationality.’<sup>9</sup> In this sense, even when the term ‘postsecularity’ is advocated, ‘religion’—in all its vaguely defined forms—is subtly re-appropriated into an all-encompassing and universal ‘secularity,’ even if this is cast as being ‘neutral’ or at least ‘reflexive.’

The current historiography of British secularization is a case in point, even as it is currently seeking new frameworks through which to engage with its contested topic. First, the historiography seems unable to cross its established conceptual, empirical and indeed structural boundaries. As Jeremy Morris has pointed out, the field remains characterized by an unhealthy separation between the specifically ‘religious’ and the specifically ‘non-religious,’ in practical as well as theoretical terms: ecclesiastical or denominational histories are written within scholarly conclaves made up of sympathizers; whereas histories of the ‘social’ aspect of ‘religion’ are mostly written with little or no regard for theological concepts or confessional issues as such.<sup>10</sup> Secondly, while it is true that some historians are seeking to be more attuned to the complexities of human experience, and to treat ‘religion’ ‘on its own terms,’<sup>11</sup> this ultimately amounts to nothing more than the ultimately ‘secular’ stance described above. Whilst the *conclusion* of such historical studies might be labelled

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<sup>9</sup> Bruno Latour, “‘Thou Shall Not Freeze-Frame,’ Or How Not to Misunderstand the Science and Religion Debate,” in *On the Modern Cult of the Factish Gods* (Durham; London: Duke University Press, 2010), 109.

<sup>10</sup> Jeremy Morris, “Secularization and Religious Experience.”

<sup>11</sup> See e.g. David Nash, “Reconnecting Religion with Cultural and Social History.”

‘postsecular’—for instance in the sense that they complicate the exaggerated teleology of the traditional secularization thesis—their implicit *stance* remains fundamentally secular, just as Taylor’s modernity remains (temporally speaking) fundamentally secular underneath a rich variety of ‘postsecular’ phenomena.

If this meaning of the ‘postsecular’ is insisted upon, then, the term should arguably be dismissed as at best superfluous, at worst misleading.<sup>12</sup> However, this thesis introduces a new way for the historiography to understand and apply the term. In terms of its conclusion, the thesis might be labelled postsecular simply because it counters Taylor’s claim that modernity’s temporal structure is purely secular. But more crucially, the thesis has sought to be postsecular in its stance. In contrast to the approaches described above, the present analysis bypasses with deliberate indifference any attempt to define ‘secularity’ in relation to ‘religion,’ even when a process of secularization is its very subject. Instead, it offers to the existing historiography a perspective profoundly different from the ones currently in play, and seeks to demonstrate its heuristic value in three historical arenas generally familiar to Victorian scholars. Thus, the thesis attempts to move beyond—practically as well as theoretically—some of the artificial barriers still prevalent in the field; barriers between, for instance, belief versus action, discursive meanings versus material objects, and ‘religious’ versus ‘non-religious’ (or ‘neutral’) topics of historical enquiry.<sup>13</sup> Where the thesis does speak of ‘religion’ or ‘non-religion,’ this is only to point out the irrelevance of such denominators to its analysis of secularization. Whilst arguing that the concept of secular time was rooted in scholastic angelology, for instance, the thesis also emphasizes that the concept does not fit within a schema of a ‘this-worldly’ realm opposed to ‘transcendence:’ indeed, the concept was construed as an alternative ‘third’ realm located somehow ‘between’ these two. In short, deliberately situating itself in the ‘in-between,’ the thesis has tried to suspend judgement on questions of what should count as ‘religious’ or ‘non-religious’ in the first place, and focus instead on processes of ‘translation’ performed in human-

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<sup>12</sup> For one recent dismissal of the term, see James A Beckford, “SSSR Presidential Address Public Religions and the Postsecular: Critical Reflections,” *Journal for the Scientific Study of Religion* 51, no. 1 (March 1, 2012): 1–19.

<sup>13</sup> See for instance the Non-Religion and Secularity Research Network (founded 2008) at <http://nsrn.net/>.

technological networks, abstract assumptions and embodied practices at once underpinning and being upheld by one another, and various modes of mediation.<sup>14</sup>

In summary, then, the thesis has sought to recast the question of Victorian secularization, affirming that such a process did occur while remaining avowedly postsecular in its stance as well as its conclusion: Victorian modernity was at once secular *and* not secular. The present argument both affirms and rejects Taylor's secularization thesis: it affirms that the term 'secular' ultimately denotes the temporal dimension of the modern social imaginary, and the Victorian period did see secular time being actively invested on this fundamental level, indeed in unprecedented degree and scope. Hence, scholars may again speak of Victorian secularization – albeit only in this specific sense. But the thesis rejects that the concept of secular time was exclusive, even on this level; it was always and everywhere shot through with an equally all-consuming historical time, and their paradoxical coincidence constituted a contradictory temporal dialectic in the very structure of Victorian modernity itself.

In order to make this argument, it has been necessary to attempt a synthesis of the current state of scholarship in a wide range of areas and disciplines, all of which are complex and multi-faceted in their own right. The argument has drawn, quite eclectically, on a range of recent philosophical tools and perspectives, whilst seeking to locate its analysis on the level of technologies and practices. Furthermore, it has drawn on these discussions in an ambitious attempt to combine into a coherent whole the already complex historiographies of Victorian railways, news media, and monetary developments, always with an eye towards merging the intellectual and abstract with the mundane and concrete. No doubt, in its attempt to narrate a clear trajectory, the argument has glossed over many details and possibly important exceptions, at the cost of giving an exaggerated sense of teleology.

Nonetheless, this synthesizing approach opens up various possibilities for further and more specialized research, of both a 'conceptual' and an 'empirical' nature, and in several historiographical areas. Its emphasis on implicit temporality creatively connects characteristic Victorian technological achievements to developments in the preceding centuries. Its distinction between two kinds of time at play in the logic of

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<sup>14</sup> Anna Strhan has recently argued for—and indeed practiced—a similar 'Latourian' approach in her study of 'secularism.' Anna Strhan, "Latour, Prepositions and the Instauration of Secularism," *Political Theology* 13, no. 2 (2011): 200–216. For Latour's latest work on mediation and modes of existence (upon which Strhan draws), see Bruno Latour, "Reflections on Etienne Souriau's *Les Différents Modes d'Existence*."

‘civilization’ and ‘uneven development’ suggests new ways for historians to approach the question of modern temporality in domestic as well as (post)colonial contexts. Its precise definition of secular time allows for more accurate inquiries into its location and performance in modernity, beyond vague conceptions of ‘ordinary’ temporality as opposed to some even more vaguely conceived ‘transcendence.’ Its mobilization of Latourian immutable mobiles in the task of locating secular time both helps to ground such abstract speculation in mundane, material objects, and to liberate—for historians—this conceptual tool from its awkward restriction to studies of specifically ‘scientific’ notation procedures. Finally, the thesis offers a new way to approach the important question of modernity and temporality, both in the case of nineteenth-century railway, newspaper, and monetary histories (even suggesting connections between these to be explored in later projects) and, more broadly, the location of Victorian England in the ‘bigger picture’ of modernity. In light of this range of direct and indirect contributions to current scholarship, the limitations inherent to a synthesizing approach are, it is hoped, a price well worth paying.



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