### Notes

### INTRODUCTION: THE BONFIRE OF THE HUMANITIES?

- I Alfred Rappaport, Saving Capitalism from Short-termism: How to Build Long-term Value and Take Back our Financial Future (New York, 2011); Dominic Barton and Mark Wiseman, 'Focusing Capital on the Long Term', Harvard Business Review 92, 1–2 (January–February 2014), 44–51.
- 2 Stewart Brand, *The Clock of the Long Now: Time and Responsibility* (New York, 1999), 3: http://longnow.org/.
- 3 Pascal Lamy et al., Now for the Long Term: The Report of the Oxford Martin Commission for Future Generations (Oxford, 2013), 6, 9.
- 4 Francis Fukuyama, *The End of History and the Last Man* (New York, 2006); Thomas L. Friedman, *Hot, Flat, and Crowded: Why We Need a Green Revolution And How it Can Renew America* (New York, 2008).
- 5 The inspiration for these popularisations comes from works such as Steven D. Levitt and Stephen J. Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything* (New York, 2005); Gregory Clark, *A Farewell to Alms: A Brief Economic History of the World* (Princeton, NJ, 2007); and Francis Fukuyama, *The Origins of Political Order: From Prehuman Times to the French Revolution* (New York, 2011).
- 6 'The World's Oldest Companies', *The Economist* (16 December 2004): www.economist.com/node/3490684.
- 7 Stefan Collini, What Are Universities For? (London, 2012); Andrew McGettigan, The Great University Gamble: Money, Markets and the Future of Higher Education (London, 2013).
- 8 Michael Spence, 'How Best to Measure the Value of Research', *The Chronicle of Higher Education* (8 August 2013): http://chronicle.com/blogs/worldwise/how-best-to-measure-the-value-of-research/32765.
- 9 Rens Bod, A New History of the Humanities: The Search for Principles and Patterns from Antiquity to the Present (Oxford, 2013).
- 10 Lynn Hunt, Writing History in the Global Era (New York, 2014), 1.
- II Important recent defences of the humanities from Britain and the United States include Louis Menand, *The Marketplace of Ideas* (New York, 2010); Martha Nussbaum, *Not for Profit: Why Democracy Needs the Humanities* (Princeton, NJ, 2010); Jonathan Bate (ed.), *The Public Value of the Humanities* (London, 2011); Helen Small, *The Value of the Humanities* (Oxford, 2013).

- 12 Daniel Lord Smail, 'Introduction: History and the Telescoping of Time: A Disciplinary Forum', *French Historical Studies* 34 (2011), 1, 2.
- 13 David Christian, 'The Longest Durée: A History of the Last 15 Billion Years', *Australian Historical Association Bulletin*, 59–60 (August–November 1989), 27–36; Christian, 'Big History: The Longest "Durée", *Österreichische Zeitschrift für Geschichtswissenschaften* 20 (2009), 91–106; Tom Griffiths, 'Travelling in Deep Time: *La Longue Durée* in Australian History', *Australian Humanities Review* (June 2000): www.australian humanitiesreview.org/archive/Issue-June-2000/griffiths4.html.
- 14 David Armitage and Jo Guldi, 'Le Retour de la longue durée. Une perspective anglo-saxonne', Annales. Histoire, Sciences sociales, 70 (2015). More generally, see Barbara Weinstein, 'History Without a Cause? Grand Narratives, World History, and the Postcolonial Dilemma', International Review of Social History 50 (2005), 71–93; Penelope Corfield, 'The Big Picture's Past, Present and Future', The Times Higher (27 July 2007), 14; Donald A. Yerxa, 'Introduction: History on a Large Scale', in Yerxa (ed.), World History and the History of the West: Historians in Conversation (Columbia, SC, 2009), 1–12; David Christian, 'The Return of Universal History', History and Theory 49 (2010), 6–27; David Sebouh Aslanian et al., 'How Size Matters: The Question of Scale in History', American Historical Review 118 (2013), 1431–72.
- 15 Richard Drayton, 'Imperial History and the Human Future', *History Workshop Journal*, 74 (2012), 167.
- 16 Fernand Braudel, 'Histoire et Sciences sociales. La longue durée', Annales. Histoire, Sciences sociales 13 (1958), 725–53; trans. as Braudel, 'History and the Social Sciences', in Braudel, On History (trans.) Sarah Matthews (Chicago, 1982), 25–54.
- 17 Pierre Bourdieu, 'The Field of Cultural Production, or: The Economic World Reversed', in Bourdieu, *The Field of Cultural Production: Essays on Art and Literature* (ed. and introd.) Randal Johnson (New York, 1993), 60.

### CHAPTER I GOING FORWARD BY LOOKING BACK: THE RISE OF THE LONGUE DURÉE

- I Michel de Certeau, *The Writing of History* (trans.) Tom Conley (New York, 1988).
- 2 Winston Churchill, toast to the Royal College of Physicians (2 March 1944): 'Prime Minister Among the Physicians', *The Lancet* 243 (11 March 1944), 344; Peter Clarke, *Mr Churchill's Profession: Statesman, Orator, Writer* (London, 2012).
- 3 For example, Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York, 1993); Norbert Elias, *The Civilizing Process:*

- Sociogenetic and Psychogenetic Investigations (trans.) Edmund Jephcott, rev. edn (Oxford, 2000).
- 4 Quentin Skinner, 'Meaning and Understanding in the History of Ideas', *History and Theory* 8 (1969), 3–53.
- 5 Wilhelm Windelband, 'Rectorial Address, Strasbourg, 1894' (trans.) Guy Oakes, *History and Theory* 19 (1980), 169–85.
- 6 David Armitage, 'What's the Big Idea? Intellectual History and the Longue Durée', History of European Ideas 38 (2012), 493–507.
- 7 Fernand Braudel, 'History and the Social Sciences: The *Longue Durée'* (1958), in Braudel, *On History* (trans.) Sarah Matthews (Chicago, 1982), 47.
- 8 William H. Sewell, Jr, Logics of History: Social Theory and Social Transformation (Chicago, 2005).
- 9 Fernand Braudel, 'Histoire et Sciences sociales. La longue durée', *Annales. Histoire, Sciences sociales* 13 (1958), 725–53.
- 10 Fernand Braudel, 'Préface' (1946), in *La Méditerranée et le Monde méditerranéen à l'époque de Philippe II* (Paris, 1949), xiii.
- 11 A charge immediately rejected by Witold Kula, 'Histoire et économie. Le longue durée', *Annales. Histoire, Sciences sociales* 15 (1960), 294–313.
- 12 Braudel, 'Histoire et Sciences sociales', 735, 751.
- 13 See, for example, Eugène Garsonnet, Histoire des locations perpétuelles et des baux à longue durée (Paris, 1878); Victor Lemaitre, Considérations sur la paralysie générale de longue durée (Paris, 1879); Gaston Imbert, Des mouvements de longue durée Kondratieff, 3 vols. (Aix-en-Provence, 1956).
- 14 Peter Burke, *The French Historical Revolution: The Annales School,* 1929–89 (Oxford, 1990), 33; Paule Braudel, 'Braudel en captivité', in Paul Carmignani (ed.), *Autour de F. Braudel* (Perpignan, 2001), 13–25; Peter Schöttler, 'Fernand Braudel als Kriegsgefangener in Deutschland', in Fernand Braudel, *Geschichte als Schlüssel zur Welt. Vorlesungen in Deutscher Kriegsgefangenschaft 1941* (ed.) Peter Schöttler (Stuttgart, 2013), 187–211. Braudel's lectures in the camps have been reconstructed as 'L'Histoire, mesure du monde' (1941–4), in Fernand Braudel, *Les ambitions de l'Histoire* (ed.) Roselyne de Ayala and Paule Braudel (Paris, 1997), 13–83.
- 15 Giuliana Gemelli, Fernand Braudel e l'Europa universale (Venice, 1990), 246–300; Maurice Aymard, 'La longue durée aujourd'hui. Bilan d'un demi-siècle (1958–2008)', in Diogo Ramada Curto, Eric R. Dursteller, Julius Kirshner, and Francesca Trivellato (eds.), From Florence to the Mediterranean and Beyond: Essays in Honour of Anthony Molho, 2 vols. (Florence, 2009), 11, 559–60 (quoted).
- 16 Fernand Braudel, 'Gaston Berger, 1896–1960', Annales. Histoire, Sciences sociales 16 (1961), 210–11; Gaston Berger, Phénoménologie du temps et prospective (Paris, 1964); Gemelli, Fernand Braudel e l'Europa universale,

- 301–62; Jenny Andersson, 'The Great Future Debate and the Struggle for the World', *American Historical Review* 117 (2012), 1417–18.
- 17 Cicero, *De Oratore*, 11.36: 'Historia vero testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis, qua voce alia nisi oratoris immortalitati commendatur?' ('By what voice other than the orator's is history the witness of past times, the light of truth, the life of memory, the guide to life, the herald of antiquity entrusted to immortality?')
- 18 John Burrow, A History of Histories: Epics, Chronicles, Romances and Inquiries from Herodotus and Thucydides to the Twentieth Century (London, 2007), 163–4.
- 19 Burrow, *A History of Histories*, 366, 426; Deborah Wormell, *Sir John Seeley and the Uses of History* (Cambridge, 1980), ch. 4, 'School of Statesmanship'.
- 20 Alfred Thayer Mahan, *The Influence of Sea Power Upon History,* 1660–1783 (Boston, 1890); Mark Russell Shulman, 'The Influence of Mahan upon Sea Power', *Reviews in American History* 19 (1991), 522–7.
- 21 John Keegan, The Face of Battle (London, 1976); Peter Paret, Gordon A. Craig, and Felix Gilbert (eds.), Makers of Modern Strategy: From Machiavelli to the Nuclear Age (Princeton, NJ, 1986); John Keegan, A History of Warfare (New York, 1993); Allan D. English (ed.), The Changing Face of War: Learning from History (Montreal, 1998); Azar Gat, A History of Military Thought: From the Enlightenment to the Cold War (Oxford, 2001); Jo Guldi, 'The Uses of Planning and the Decay of Strategy', Contemporary Security Policy 27 (2006), 209–36; Williamson Murray, War, Strategy, and Military Effectiveness (Cambridge, 2011); Hew Strachan, The Direction of War: Contemporary Strategy in Historical Perspective (Cambridge, 2013).
- 22 Williamson Murray and Richard Hart Sinnreich (eds.), *The Past as Prologue: The Importance of History to the Military Profession* (Cambridge, 2006).
- 23 Louis Geoffroy, *Napoléon apocryphe*, 1812–1832: histoire de la conquête du monde & de la monarchie universelle (Paris, 1836); Catherine Gallagher, 'What Would Napoleon Do? Historical, Fictional, and Counterfactual Characters', *New Literary History* 42 (2011), 323–5.
- 24 Sidney and Beatrice Webb, *English Local Government*, 11 vols. (London, 1906–29).
- 25 Gertrude Himmelfarb, 'The Intellectual in Politics: The Case of the Webbs', *Journal of Contemporary History* 6 (1971), 3.
- 26 Adam Kuper, 'The Rise and Fall of Maine's Patriarchal Society', in Alan Diamond (ed.), *The Victorian Achievement of Sir Henry Maine* (Cambridge, 1991), 100–10; C. Hill, 'Sidney Webb and the Common Good: 1887–1889', *History of Political Thought* 14 (1993), 591–622.

- 27 Sidney Webb, 'The Basis of Socialism: Historic', in George Bernard Shaw (ed.), *Fabian Essays in Socialism* (1889) (London, 1948), 29, 32, 46–7.
- 28 Sidney Webb, *The London Programme* (London, 1891); Asa Briggs, *Victorian Cities* (London, 1963), 350–2.
- 29 John Broich, London: Water and the Making of the Modern City (Pittsburgh, 2013).
- 30 R. H. Tawney, *The Agrarian Problem in the Sixteenth Century* (London, 1912).
- 31 R. H. Tawney, A Memorandum on Agriculture and Industry in China (Honolulu, 1929); Tawney, Land and Labour in China (London, 1932); Lawrence Goldman, The Life of R. H. Tawney: Socialism and History (London, 2013), 147.
- 32 E. J. Hobsbawm, Labouring Men: Studies in the History of Labour (London, 1965); Hobsbawm, Primitive Rebels: Studies in Archaic Forms of Social Movement in the 19th and 20th Centuries (London, 1965); Hobsbawm, The Age of Revolution: Europe 1789–1848 (London, 1962).
- 33 E. J. Hobsbawm, 'The Social Function of the Past: Some Questions', Past & Present 55 (1972), 3–17; Hobsbawm, On History (New York, 1997); Hobsbawm, On the Edge of the New Century (London, 2000); Hobsbawm, On Empire: America, War, and Global Supremacy (London, 2008); Gregory Elliott, Hobsbawm: History and Politics (London, 2010).
- 34 Charles Beard, American Government and Politics (New York, 1910); Charles Beard and Mary Beard, The Rise of American Civilization (New York, 1928); Merle Curti, The American Peace Crusade, 1815–1860 (Durham, NC, 1929); Curti, Peace or War: The American Struggle (New York, 1936).
- 35 J. L. Hammond and Barbara Hammond, *The Village Labourer*, 1760–1832: A Study in the Government of England before the Reform Bill (London, 1911); Karl Polanyi, *The Great Transformation* (New York, 1944); W. G. Hoskins, *The Making of the English Landscape* (London, 1955); M. W. Beresford, *History on the Ground: Six Studies in Maps and Landscapes* (London, 1957).
- 36 Jawaharlal Nehru, Glimpses of World History (Kitabistan, 1934); Vinayak Domodar Savarkar, Six Glorious Epochs of Indian History (Delhi, 1963); C. L. R. James, State Capitalism and World Revolution (Chicago, 1986); James, The Future in the Present (London, 1977).
- 37 Hannah Arendt, *The Human Condition* (Chicago, 1958); Arendt, *The Origins of Totalitarianism* (New York, 1958); Arendt, *Between Past and Future: Six Exercises in Political Thought* (New York, 1961).
- 38 Lewis Mumford, *The Story of Utopias* (New York, 1922); Mumford, *Technics and Civilization* (New York, 1934); Mumford, *The Culture of*

- Cities (New York, 1938); Thomas P. Hughes, Lewis Mumford: Public Intellectual (Oxford, 1990).
- 39 Charles Beard, *American Government and Politics* (New York, 1910, and later edns); Arthur Schlesinger, Sr, *Political and Social History of the United States, 1829–1925* (New York, 1925, and later edns).
- 40 For example, Lewis Mumford, 'The Intolerable City: Must It Keep on Growing?', *Harper's Magazine* 152 (1926), 283–93; Mumford, 'Magnified Impotence', *New Republic* 49 (22 December 1926), 138–40; Mumford, 'The Sky Line: Bigger Slums or Better City?', *The New Yorker* 26 (24 June 1950), 78–84.
- 41 William Appleman Williams, *The Tragedy of American Diplomacy* (New York, 1962); Kevin Mattson, *Intellectuals in Action: The Origins of the New Left and Radical Liberalism*, 1945–1970 (University Park, PA, 2002), 147–51, 159.
- 42 John Boyd Orr, *A Short History of British Agriculture* (London, 1922). The book remained relatively unknown, but Orr's historically derived view of how institutions could revolutionise agriculture was put into practice on a global scale over the coming decades by the UN organs that he helped to found.
- 43 David Landes, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* (London, 1969); William J. Ashworth, 'The British Industrial Revolution and the Ideological Revolution: Science, Neoliberalism and History', *History of Science* (2014): doi: 10.1177/0073275314529860.
- 44 Elias H. Tuma, Twenty-Six Centuries of Agrarian Reform: A Comparative Analysis (Berkeley, 1965); Russell King, Land Reform: A World Survey (London, 1977).
- 45 Alfred N. Chandler, *Land Title Origins: A Tale of Force and Fraud* (New York, 1945).
- 46 George Raymond Geiger, *The Theory of the Land Question* (New York, 1936); Paolo Grossi, *An Alternative to Private Property: Collective Property in the Juridical Consciousness of the Nineteenth Century* (trans.) Lydia G. Cochrane (Chicago, 1981).
- 47 Aaron M. Sakolski, Land Tenure and Land Taxation in America (New York, 1957), 13; compare Eric Nelson, The Hebrew Republic: Jewish Sources and the Transformation of European Political Thought (Cambridge, MA, 2010), 57–87.
- 48 Charles Dupin, *The Commercial Power of Great Britain* (1824) (Eng. trans.), 2 vols. (London, 1825).
- 49 See, for example, Paul R. Ehrlich, *The Population Bomb* (New York, 1968); Erich Fromm, *The Revolution of Hope: Toward a Humanized Technology* (New York, 1968); R. Buckminster Fuller, *Utopia or Oblivion: The Prospects for Humanity* (London, 1969); Alvin Toffler, *Future*

- Shock (New York, 1970); Norman Borlaug, Mankind and Civilization at Another Crossroad (Madison, WI, 1971); Herman Kahn and B. Bruce-Briggs, Things to Come: Thinking about the Seventies and Eighties (New York, 1972); George Leonard, The Transformation: A Guide to the Inevitable Changes in Humankind (New York, 1972); Donella Meadows et al., The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind (New York, 1972); Adrian Berry, The Next Ten Thousand Years: A Vision of Man's Future in the Universe (New York, 1974); Mihajlo Mesarović and Eduard Pestel, Mankind at the Turning Point: The Second Report to the Club of Rome (New York, 1974); Herman Kahn, William Brown, and Leon Martel, The Next 200 Years: A Scenario for America and the World (New York, 1976); Wayne I. Boucher (ed.), The Study of the Future: An Agenda for Research (Washington, DC, 1977); Ervin László et al., Goals for Mankind: A Report to the Club of Rome on the New Horizons of Global Community (New York, 1977).
- 50 Herman Kahn, William Brown, and Leon Martel, *The Next 200 Years:* A Scenario for America and the World (New York, 1976); Paul Dragos, Aligică, Prophecies of Doom and Scenarios of Progress: Herman Kahn, Julian Simon, and the Prospective Imagination (New York, 2007); Andersson, 'The Great Future Debate and the Struggle for the World', 1416.
- 51 Mike Hulme, 'Reducing the Future to Climate: A Story of Climate Determinism and Reductionism', *Osiris* 26 (2011), 256.
- 52 Libby Robin, 'Histories for Changing Times: Entering the Anthropocene?', *Australian Historical Studies* 44 (2013), 333.
- 53 Bill Vitek and Wes Jackson (eds.), *The Virtues of Ignorance: Complexity, Sustainability, and the Limits of Knowledge* (Lexington, KY, 2008); Wes Jackson, *Consulting the Genius of the Place: An Ecological Approach to a New Agriculture* (Berkeley, 2010).
- Niall Ferguson (ed.), Virtual History: Alternatives and Counterfactuals (London, 1997); Richard Evans, Altered Pasts: Counterfactuals in History (London, 2014).
- 55 Humberto Llavador, John E. Roemer, and Joaquim Silvestre, 'A Dynamic Analysis of Human Welfare in a Warming Planet', *Journal of Public Economics* 95 (2011), 1607–20; Llavador, Roemer, and Silvestre, *Sustainability for a Warming Planet* (Cambridge, MA, 2015).
- 56 Ted Steinberg, 'Can Capitalism Save the Planet? On the Origins of Green Liberalism', *Radical History Review* 107 (2010), 7–24; Emma Rothschild, Paul Warde, and Alison Frank, 'Forum: The Idea of Sustainability', *Modern Intellectual History* 8 (2011), 147–212; Joshua J. Yates, 'Abundance on Trial: The Cultural Significance of "Sustainability", *The Hedgehog Review* 14 (2012), 8–25.
- 57 World Commission on Environment and Development, Our Common Future (New York, 1987); Paul B. Thompson, The Agrarian Vision: Sustainability and Environmental Ethics (Lexington, KY, 2010), 197–200.

- 58 Mumford, *The Story of Utopias*; Gregory Claeys, *Searching for Utopia: The History of an Idea* (London, 2011).
- 59 Wes Jackson, New Roots for Agriculture (San Francisco, 1980).
- 60 Martin Mulligan and Stuart Hill, Ecological Pioneers: A Social History of Australian Ecological Thought and Action (Cambridge, 2001), 195–200.
- 61 L. C. Jain and Karen Coelho, In the Wake of Freedom: India's Tryst with Cooperatives (New Delhi, 1996); John Curl, 'The Cooperative Movement in Century 21', Affinities: A Journal of Radical Theory, Culture, and Action 4 (2010), 12–29; John Restakis, Humanizing the Economy: Co-operatives in the Age of Capital (Philadelphia, 2010); John Curl, For All the People (Oakland, CA, 2012); John F. Wilson, Anthony Webster, and Rachael Vorberg-Rugh, Building Co-operation: A Business History of the Co-operative Group, 1863–2013 (Oxford, 2013); Jessica Gordon Nembhard, Collective Courage: A History of African American Cooperative Economic Thought and Practice (University Park, PA, 2014).
- 62 William H. McNeill, 'Organizing Concepts for World History', World History Bulletin 4 (1986–7), 1–4; Peter N. Stearns, 'Periodization in World History Teaching: Identifying the Big Changes', *The History Teacher* 20 (1987), 561–80.
- 63 William A. Green, 'Periodization in European and World History', *Journal of World History* 3 (1992), 13–53; Jerry H. Bentley, 'Cross-Cultural Interaction and Periodization in World History', *American Historical Review* 101 (1996), 749–70.
- 64 Jürgen Osterhammel, *The Transformation of the World: A Global History of the Nineteenth Century* (Princeton, NJ, 2014), 48. See also Wolfgang Reinhard, 'The Idea of Early Modern History', in Michael Bentley (ed.), *Companion to Historiography* (London, 1997), 290; Penelope Corfield, *Time and the Shape of History* (New Haven, 2007), 134–8.
- 65 Manuel De Landa, *A Thousand Years of Nonlinear History* (New York, 1997).

## CHAPTER 2 THE SHORT PAST: OR, THE RETREAT OF THE LONGUE DURÉE

I E. J. Hobsbawm, Primitive Rebels: Studies in Archaic Forms of Social Movement in the 19th and 20th Centuries (Manchester, 1959); Hobsbawm, The Age of Revolution, 1789–1848 (London, 1962); Hobsbawm, Labouring Men: Studies in the History of Labour (London, 1964); Hobsbawm, Industry and Empire: The Making of Modern English Society, 1750 to the Present Day (London, 1968); Hobsbawm, Bandits (New York, 1969). On 1968, see Ronald Fraser, 1968: A Student Generation in Revolt (New York, 1988); Michael Seidman, The Imaginary Revolution: Parisian

- Students and Workers in 1968 (New York, 2004); Rainer Horn, The Spirit of '68: Rebellion in Western Europe and North America, 1956–1976 (Oxford, 2007); Martin Klimke, The Other Alliance: Student Protest in West Germany and the United States in the Global Sixties (Princeton, NJ, 2011).
- 2 Geoff Eley, A Crooked Line: From Cultural History to the History of Society (Ann Arbor, MI, 2005), ix.
- 3 Geoff Eley, 'The German Navy League in German Politics, 1898–1914' (DPhil. thesis, University of Sussex, 1974); Eley, 'Reshaping the Right: Radical Nationalism and the German Navy League, 1898–1908', *The Historical Journal* 21 (1978), 327–54.
- 4 See, for example, Charles Tilly, *Big Structures, Large Processes, Huge Comparisons* (New York, 1984); Richard E. Lee (ed.), *The Longue Durée and World-Systems Analysis* (Albany, NY, 2012).
- 5 David Blackbourn and Geoff Eley, Mythen deutscher Geschichtsschreibung. Die gescheiterte bürgerliche Revolution von 1848 (Frankfurt, 1980); Blackbourn and Eley, The Peculiarities of German History: Bourgeois Society and Politics in Nineteenth-Century Germany (Oxford, 1984).
- 6 Geoff Eley, 'Holocaust History', *London Review of Books* (3 March 1983), 6–9.
- 7 Gerald Bloom, 'Science and Technology for Health: Towards Universal Access in a Changing World', 2009: http://opendocs.ids.ac.uk/opendocs/handle/123456789/2282; Adrian Ely and Martin Bell, 'The Original "Sussex Manifesto": Its Past and Future Relevance', 2009: http://opendocs.ids.ac.uk/opendocs/handle/123456789/2283; Melissa Leach, 'Sustainability, Development, Social Justice: Towards a New Politics of Innovation', in Leach, *Technologies and Innovations for Development* (Springer, 2012), 19–29; Esha Shah, 'Manifesting Utopia: History and Philosophy of UN Debates on Science and Technology for Sustainable Development': 2009: http://mobile.opendocs.ids.ac.uk/opendocs/handle/123456789/2451.
- 8 William Robbins, 'William Appleman Williams: "Doing History Is Best of All. No Regrets", in Lloyd Gardner (ed.), *Redefining the Past: Essays in Diplomatic History in Honor of William Appleman Williams* (Corvallis, OR, 1986), 4–5; Michael D. Bess, 'E. P. Thompson: The Historian as Activist', *The American Historical Review* 98 (1993), 18–38.
- 9 E. J. Hobsbawm, 'The Social Function of the Past: Some Questions', *Past & Present* 55 (May 1972), 3–17; Hobsbawm, 'Mass-Producing Traditions: Europe, 1870-1914', in E. J. Hobsbawm and T. O. Ranger (eds.), *The Invention of Tradition* (Cambridge, 1983), 263–307.
- 10 Paul Goodman, 'The Devolution of Democracy', *Dissent 9* (1962), 10, quoted in Kevin Mattson, *Intellectuals in Action: The Origins of the New Left and Radical Liberalism*, 1945–1970 (University Park, PA, 2002), 124.
- II Eley, A Crooked Line, 129-30.

- 12 Lori Thurgood, Mary J. Golladay, and Susan T. Hill, 'US Doctorates in the 20th Century: Special Report' (National Science Foundation, June 2006), 7: www.nsf.gov/statistics/nsf06319/pdf/nsf06319.pdf.
- 13 Frederick Jackson Turner, The Character and Influence of the Indian Trade in Wisconsin: A Study of the Trading Post as an Institution (Baltimore, 1891); W. E. B. Du Bois, 'Suppression of the African Slave Trade in the United States' (PhD dissertation, Harvard University, 1895); Du Bois, The Suppression of the African Slave-Trade to the United States of America, 1638–1870 (New York, 1896).
- 14 Benjamin Schmidt, 'What Years Do Historians Write About?', Sapping Attention (9 May 2013): http://sappingattention.blogspot.com/2013/05/what-years-do-historians-write-about.html. Our thanks to Ben Schmidt for sharing an updated version of his findings with us and for allowing us to use his visualisation of trends in doctoral theses.
- 15 Gareth Stedman Jones, Outcast London: A Study in the Relationship between Classes in Victorian Society (Oxford, 1971); Stedman Jones, Languages of Class: Studies in English Working Class History, 1832–1982 (Cambridge, 1983); David R. Roediger, Wages of Whiteness: Race and the Making of the American Working Class (London, 1991).
- 16 Arlette Farge, Le Goût de l'archive (Paris, 1989).
- 17 For example, R. B. Rose, 'The Priestley Riots of 1791', Past & Present 18 (1960), 68–88; John Bohstedt, Riots and Community Politics in England and Wales, 1790–1810 (Cambridge, MA, 1983); Colin Haydon, Anti-Catholicism in Eighteenth-Century England, c. 1714–80 (Manchester, 1993); Ian Haywood and John Seed (eds.), The Gordon Riots: Politics, Culture and Insurrection in Late Eighteenth-Century Britain (Cambridge, 2012).
- 18 Ilza Veith, Hysteria: The History of a Disease (Chicago, 1965); Robert Darnton, Mesmerism and the End of the Enlightenment in France (Cambridge, MA, 1968); William J. McGrath, Freud's Discovery of Psychoanalysis: The Politics of Hysteria (Ithaca, 1986); Ian Hacking, Mad Travelers: Reflections on the Reality of Transient Mental Illnesses (Charlottesville, VA, 1998); Rachel Maines, The Technology of Orgasm: 'Hysteria', the Vibrator, and Women's Sexual Satisfaction (Baltimore, 1998); Georges Didi-Huberman, Invention of Hysteria: Charcot and the Photographic Iconography of the Salpêtrière (trans.) Alisa Hartz (Cambridge, MA, 2003); David Trotter, 'The Invention of Agoraphobia', Victorian Literature and Culture 32 (2004), 463–74; Mark S. Micale, Hysterical Men: The Hidden History of Male Nervous Illness (Cambridge, MA, 2008).
- 19 Eley, A Crooked Line, 184, 129.
- 20 Natalie Zemon Davis, Society and Culture in Early Modern France: Eight Essays (Stanford, 1975); Robert Darnton, The Great Cat Massacre and Other Episodes in French Cultural History (New York, 1984).

- 21 Edoardo Grendi, 'Micro-analisi e storia sociale', *Quaderni storici* 35 (1977), 512. See, more generally, Jacques Revel (ed.), *Jeux d'échelles. La micro-analyse à l'expérience* (Paris, 1996); Paola Lanaro (ed.), *Microstoria. A venticinque anni de l'eredità immateriale* (Milan, 2011); Francesca Trivellato, 'Is There a Future for Italian Micro-History in the Age of Global History?', *California Italian Studies* 2 (2011): www.escholarship.org/uc/item/0z94n9hq.
- 22 Carlo Ginzburg, Storia notturna. Una decifrazione del sabba (Turin, 1989).
- 23 Giovanni Levi, 'On Micro-history', in Peter Burke (ed.), *New Perspectives on Historical Writing* (Cambridge, 1991), 94.
- 24 Mark Salber Phillips, On Historical Distance (New Haven, 2013), 205-6.
- 25 Richard Rorty (ed.), The Linguistic Turn: Recent Essays in Philosophical Method (Chicago, 1967); Gabrielle M. Spiegel (ed.), Practicing History: New Directions in Historical Writing after the Linguistic Turn (London, 2005); Judith Surkis, 'When Was the Linguistic Turn? A Genealogy', American Historical Review 117 (2012), 700–22.
- 26 Victoria E. Bonnell and Lynn Hunt (eds.), Beyond the Cultural Turn: New Directions in the Study of Society and Culture (Berkeley, 1999); James W. Cook, Lawrence B. Glickman, and Michael O'Malley (eds.), The Cultural Turn in US History: Past, Present, and Future (Chicago, 2005).
- 27 Antoinette Burton (ed.), After the Imperial Turn: Thinking With and Through the Nation (Durham, NC, 2003); Ulf Hedetoft, The Global Turn: National Encounters with the World (Aalborg, 2003); Winfried Fluck, Donald E. Pease, and John Carlos Rowe (eds.), Re-Framing the Transnational Turn in American Studies (Hanover, NH, 2011); Durba Ghosh, 'Another Set of Imperial Turns?', American Historical Review 117 (2012), 772–93.
- 28 Jo Guldi, 'What is the Spatial Turn?' (2011): http://spatial.scholarslab. org/spatial-turn/; David Armitage, 'The International Turn in Intellectual History', in Armitage, Foundations of Modern International Thought (Cambridge, 2013), 17–32; also in Darrin M. McMahon and Samuel Moyn (eds.), Rethinking Modern European Intellectual History (New York, 2014), 232–52.
- 29 Judith Surkis, Gary Wilder, James W. Cook, Durba Ghosh, Julia Adeney Thomas, and Nathan Perl-Rosenthal, 'AHR Forum: Historiographic "Turns" in Critical Perspective', American Historical Review 117 (2013), 698–813.
- 30 Emile Perreau-Saussine, 'Quentin Skinner in Context', *Review of Politics* 69 (2007), 110.
- 31 Quentin Skinner, 'Introduction: The Return of Grand Theory', in Skinner (ed.), *The Return of Grand Theory in the Human Sciences* (Cambridge, 1985), 12.
- 32 Quentin Skinner, 'The Vocabulary of Renaissance Republicanism: A Cultural *longue-durée*?', in Alison Brown (ed.), *Language and Images of Renaissance Italy* (Oxford, 1995), 87–110, pointed towards Skinner,

- Reason and Rhetoric in the Philosophy of Hobbes (Cambridge, 1996); Skinner, Liberty Before Liberalism (Cambridge, 1998); Skinner and Martin van Gelderen (eds.), Republicanism: A Shared European Heritage, 2 vols. (Cambridge, 2002); Skinner, 'A Genealogy of the Modern State', Proceedings of the British Academy 162 (2009), 325–70; and Skinner and van Gelderen (eds.), Freedom and the Construction of Europe, 2 vols. (Cambridge, 2013). Compare Darrin M. McMahon, 'The Return of the History of Ideas?', in McMahon and Moyn (eds.), Rethinking Modern European Intellectual History, 13–31; Armitage, 'What's the Big Idea?'.
- 33 David Knowles, The Historian and Character (Cambridge, 1955).
- 34 John Emerich Edward Dalberg Acton, *Lectures on Modern History* (London, 1906), 14.
- 35 Elie Halévy, Histoire du peuple anglais au XIX<sup>e</sup> siècle, 1: L'Angleterre en 1815 (Paris, 1913); Robert Graves, The Long Week-End: A Social History of Great Britain, 1918–1939 (London, 1940).
- 36 Kingsley Amis, *Lucky Jim* (1953) (New York, 2012), 9; David Cannadine, 'British History: Past, Present and Future?', *Past and Present* 116 (1987), 177.
- 37 E. P. Thompson, *The Making of the English Working Class* (London, 1963); Eugene D. Genovese, *Roll, Jordan, Roll: The World the Slaves Made* (New York, 1974).
- 38 Joan Wallach Scott, *The Glassworkers of Carmaux: French Craftsmen and Political Action in a Nineteenth-Century City* (Cambridge, MA, 1974); William Sewell, Jr, *Work and Revolution in France: The Language of Labor from the Old Regime to 1848* (Cambridge, 1980).
- 39 Michel Foucault, *Discipline and Punish: The Birth of the Prison* (trans.) Alan Sheridan (New York, 1979); Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (trans.) Thomas Burger with the assistance of Frederick Lawrence (Cambridge, MA, 1989).
- 40 Thomas Laqueur, Making Sex: Body and Gender from the Greeks to Freud (Cambridge, MA, 1990); Theodore M. Porter, Trust in Numbers: The Pursuit of Objectivity in Science and Public Life (Princeton, NJ, 1995); Miles Ogborn, Spaces of Modernity: London's Geographies, 1680–1780 (London, 1998); Vanessa R. Schwartz, Spectacular Realities: Early Mass Culture in Fin-de-Siècle Paris (Berkeley, 1998).
- 41 Florence N. McCoy, Researching and Writing in History: A Practical Handbook for Students (Berkeley, 1974), 3–6.
- 42 Paul Bew, Land and the National Question in Ireland, 1858–82 (Atlantic Highlands, NJ, 1979); L. M. Cullen, 'Review', The Agricultural History Review 28 (1980), 140.
- 43 Rodney Barker, *Political Ideas in Modern Britain: In and After the Twentieth Century* (London, 1978); Leon D. Epstein, 'Review', *Albion: A Quarterly Journal Concerned with British Studies* 11 (1979), 189–90.

- 44 Arthur Schlesinger, Sr, *The Rise of the City, 1878–98* (New York, 1933); Donald Fleming *et al.*, 'Arthur Meier Schlesinger: February 27, 1888–October 30, 1965', *The Journal of Negro History* 5 (1967), 147.
- 45 Daniel T. Rodgers, Age of Fracture (Cambridge, MA, 2011), 255.
- 46 Bernard Bailyn, 'The Challenge of Modern Historiography', *American Historical Review* 87 (1982), 2, 4, 7–8.
- 47 R. R. Palmer, 'A Century of French History in America', French Historical Studies 14 (1985), 173–4; David Armitage, 'Foreword', in Palmer, The Age of the Democratic Revolution: A Political History of Europe and America, 1760–1800, new edn (Princeton, NJ, 2014), xv–xxii.
- 48 Cannadine, 'British History: Past, Present And Future?', 176, 177.
- 49 Peter Novick, *That Noble Dream: The 'Objectivity Question' and the American Historical Profession* (Cambridge, 1988), 577–92; Jean-François Lyotard, *La Condition postmoderne. Rapport sur le savoir* (Paris, 1979), 7.
- 50 Jean Heffer, 'Is the Longue Durée Un-American?', Review 24 (2001), 137.
- 51 William A. Green, 'Periodization in European and World History', *Journal of World History* 3 (1992), 13.
- 52 Rebecca Amato and Jeffrey T. Manuel, 'Using Radical Public History Tours to Reframe Urban Crime', *Radical History Review*, 113 (2012), 212–24; Jo Guldi, 'Landscape and Place', in Simon Gunn and Lucy Faire (eds.), *Research Methods for History* (Edinburgh, 2012), 66–80.
- 53 Jared Diamond, Collapse: How Societies Choose to Fail or Succeed (London, 2005); A. J. P. Taylor, The Origins of the Second World War (London, 1961), 102.
- 54 Jason Long, 'Rural–Urban Migration and Socio-economic Mobility in Victorian Britain', *The Journal of Economic History* 65 (2005), 1–35; Long, 'The Surprising Social Mobility of Victorian Britain', *European Review of Economic History* 17 (2013), 1–23; Joel Mokyr, 'Entrepreneurship and the Industrial Revolution in Britain', in David S. Landes, Joel Mokyr, and William J. Baumol, eds., *The Invention of Enterprise: Entre-preneurship from Ancient Mesopotamia to Modern Times* (Princeton, NJ, 2012), 183–210; Andrew Godley and Mark Casson, 'History of Entrepreneurship: Britain, 1900–2000', in Landes, Mokyr, and Baumol, eds., *The Invention of Enterprise*, 243–72.
- Patrick Joyce, Work, Society, and Politics: The Culture of the Factory in Later Victorian England (Brighton, 1980); Gareth Stedman Jones, Languages of Class: Studies in English Working Class History, 1832–1982 (Cambridge, 1983); Joyce, Visions of the People: Industrial England and the Question of Class, 1848–1914 (Cambridge, 1991); James Vernon, Politics and the People: A Study in English Political Culture, c. 1815–1867 (New York, 1993); James Epstein, Radical Expression: Political Language, Ritual, and Symbol in England, 1790–1850 (New York, 1994); Epstein, In Practice: Studies in the Language and Culture of Popular Politics in Modern Britain (Stanford, 2003).

- 56 David R. Green, 'Pauper Protests: Power and Resistance in Early Nineteenth-Century London Workhouses', Social History 31 (2006), 137–59; Green, Pauper Capital London and the Poor Law, 1790–1870 (Farnham, 2010); David Englander, Poverty and Poor Law Reform in Nineteenth-Century Britain, 1834–1914: From Chadwick to Booth (London, 2013).
- 57 Philip T. Hoffman *et al.*, 'Real Inequality in Europe Since 1500', *The Journal of Economic History* 62 (2002), 322–55.
- 58 Gareth Stedman Jones, Outcast London: A Study in the Relationship Between Classes in Victorian Society (Oxford, 1971).
- 59 Johnson and Nicholas, 'Male and Female Living Standards in England and Wales, 1812–1867', 470–81; Robert J. Barro, 'Democracy and Growth', *Journal of Economic Growth* 1 (1996), 1–27; Jakob B. Madsen, James B. Ang, and Rajabrata Banerjee, 'Four Centuries of British Economic Growth: The Roles of Technology and Population', *Journal of Economic Growth* 15 (2010), 263–90; Morgan Kelly and Cormac Ó Gráda, 'Numerare Est Errare: Agricultural Output and Food Supply in England Before and During the Industrial Revolution', *The Journal of Economic History* 73 (2013), 1132–63.
- 60 R. M Hartwell, 'The Rising Standard of Living in England, 1800–1850', The Economic History Review 13 (1961), 397–416.
- 61 Sara Horrell, David Meredith, and Deborah Oxley, 'Measuring Misery: Body Mass, Ageing and Gender Inequality in Victorian London', *Explorations in Economic History* 46 (2009), 93–119; Sébastien Rioux, 'Capitalism and the Production of Uneven Bodies: Women, Motherhood and Food Distribution in Britain c. 1850–1914', *Transactions of the Institute of British Geographers*, (2014): doi:10.1111/tran.12063.
- 62 Sara Horrell, 'The Wonderful Usefulness of History', *The Economic Journal* 113 (2003), F180–F186.
- 63 Karl Gunnar Persson, 'The Malthus Delusion', European Review of Economic History 12 (2008), 165–73.

# CHAPTER 3 THE LONG AND THE SHORT: CLIMATE CHANGE, GOVERNANCE, AND INEQUALITY SINCE THE 1970S

- I Garrett Hardin, 'The Tragedy of the Commons', *Science* 162 (1968), 1243–8; David Feeny *et al.*, 'The Tragedy of the Commons: Twenty-Two Years Later', *Human Ecology* 18 (1990), 1–19; Hardin, 'Extensions of "The Tragedy of the Commons", *Science* 280 (1998), 682–3.
- 2 Harrison Brown, *The Challenge of Man's Future* (New York, 1954); Georg Borgstrom, *The Hungry Planet* (New York, 1965); Paul Ehrlich, *The Population Bomb* (New York, 1968); Matthew Connelly, *Fatal*

- Misconception: The Struggle to Control World Population (Cambridge, MA, 2008); Alison Bashford, Global Population: History, Geopolitics, and Life of Earth (New York, 2014).
- 3 Janine Delaunay (ed.), Halte à la Croissance? Enquête sur le Club de Rome (Paris, 1972); Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, and William W. Behrens, 111, The Limits to Growth (New York, 1972); Fernando Elichigority, Planet Management: Limits to Growth, Computer Simulation, and the Emergence of Global Spaces (Evanston, 1999); Clément Levallois, 'Can De-Growth Be Considered a Policy Option? A Historical Note on Nicholas Georgescu-Roegen and the Club of Rome', Ecological Economics 69 (2010), 2272; Josh Eastin, Reiner Grundmann, and Aseem Prakash, 'The Two Limits Debates: "Limits to Growth" and Climate Change', Futures 43 (2011), 16–26.
- 4 Hal Lindsay, *The Late Great Planet Earth* (Grand Rapids, MI, 1970); Daniel Wojcik, 'Embracing Doomsday: Faith, Fatalism, and Apocalyptic Beliefs in the Nuclear Age', *Western Folklore* 55 (1996), 305; Karl Butzer and George Endfield, 'Critical Perspectives on Historical Collapse', *Proceedings of the National Academy of Science* 109 (2012), 3628–31.
- Martin Rees, Our Final Century?: Will the Human Race Survive the Twenty-first Century? (London, 2003), published in the United States as Rees, Our Final Hour: A Scientist's Warning: How Terror, Error, and Environmental Disaster Threaten Humankind's Future in This Century—On Earth and Beyond (New York, 2003); Jared Diamond, Collapse: How Societies Choose to Fail or Succeed (London, 2005); Vaclav Smil, Global Catastrophes and Trends: The Next 50 Years (Cambridge, MA, 2008); James Lovelock, The Vanishing Face of Gaia: A Final Warning (New York, 2009); Ian Sample, 'World Faces "Perfect Storm" of Problems by 2030, Chief Scientist to Warn', Guardian (18 March 2009): hwww. guardian.co.uk/science/2009/mar/18/perfect-storm-john-beddington-energy-food-climate; David R. Montgomery, Dirt: The Erosion of Civilizations (Berkeley, 2012).
- 6 Clark A. Miller, 'Climate Science and the Making of a Global Political Order', in Sheila Jasanoff (ed.), *States of Knowledge: The Co-Production of Science and Social Order* (London, 2004), 46–66; Naomi Oreskes, 'The Scientific Consensus on Climate Change', *Science* 306 (2004), 1686; Mike Hulme, 'Reducing the Future to Climate: A Story of Climate Determinism and Reductionism', *Osiris* 26 (2011), 245–66; R. Agnihotri and K. Dutta, 'Anthropogenic Climate Change: Observed Facts, Projected Vulnerabilities and Knowledge Gaps', in R. Sinha and R. Ravindra (eds.), *Earth System Processes and Disaster Management* (Berlin, 2013), 123–37.
- 7 Hulme, in particular, has accused the climate science community of 'climate reductionism' in its accounts of historical agency: Richard Peet,

- 'The Social Origins of Environmental Determinism', Annals of the Association of American Geographers 75 (1985), 309–33; David N. Livingstone, 'Race, Space and Moral Climatology: Notes toward a Genealogy', Journal of Historical Geography 28 (2002), 159–80; Christopher D. Merrett, 'Debating Destiny: Nihilism or Hope in Guns, Germs, and Steel?', Antipode 35 (2003), 801–6; Andrew Sluyter, 'Neo-Environmental Determinism, Intellectual Damage Control, and Nature/Society Science', Antipode 35 (2003), 813–17; Christina R. Foust and William O'Shannon Murphy, 'Revealing and Reframing Apocalyptic Tragedy in Global Warming Discourse', Environmental Communication 32 (2009), 151–67; Hulme, 'Reducing the Future to Climate', 246.
- 8 Nicholas Stern et al., The Economics of Climate Change: The Stern Review (Cambridge, 2007); William D. Nordhaus, 'A Review of the "Stern Review on the Economics of Climate Change", Journal of Economic Literature 45 (2007), 686; 'No Need to Panic About Global Warming', Wall Street Journal, 27 January 2012, sec. Opinion: http://online.wsj.com/news/articles/SB10001424052970204301404577171531838421366?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424052970204301404577171531838421366.html.
- 9 Gene M. Grossman and Alan B. Krueger, *Economic Growth and the Environment*, National Bureau of Economic Research, Working Paper 4634 (1994): http://www.nber.org/papers/w4634; Nemat Shafik, 'Economic Development and Environmental Quality: An Econometric Analysis', *Oxford Economic Papers* 46 (1994), 757–73; Bjørn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World* (Cambridge, 2001). Grossman and Krueger's long-term world-view that "societies have shown remarkable ingenuity in harnessing new technologies" (ibid., p. 1) is grounded in the optimistic history of industrialisation characteristic of David Landes and Joel Mokyr.
- 10 See, for example, Richard E. Neustadt and Ernest R. May, Thinking in Time: The Uses of History for Decision-Makers (New York, 1986); C. A. Bayly, Vijayendra Rao, Simon Szreter, and Michael Woolcock (eds.), History, Historians and Development Policy: A Necessary Dialogue (Manchester, 2011).
- II Paul J. Crutzen, 'Geology of Mankind', *Nature*, 415 (2002), 23; Will Steffen, Paul J. Crutzen, and John R. McNeill, 'The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?', *AMBIO: A Journal of the Human Environment* 36 (2007), 614–21; Steffen, J. Grinevald, Paul J. Crutzen, and John R. McNeill, 'The Anthropocene: Conceptual and Historical Perspectives', *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 369 (2011), 842–67.

- 12 Libby Robin, 'Histories for Changing Times: Entering the Anthropocene?', *Australian Historical Studies* 44 (2013), 330.
- 13 Erle C. Ellis and N. Ramankutty, 'Putting People in the Map: Anthropogenic Biomes of the World', Frontiers in Ecology and the Environment 6 (2008), 439–47; Jed O. Kaplan, Kristen M. Krumhardt, Erle C. Ellis, William F. Ruddiman, Carsten Lemmen, and Kees Klein Goldewijk, 'Holocene Carbon Emissions as a Result of Anthropogenic Land Cover Change', The Holocene 21 (2011), 775–91. See also Integrated History and Future of People on Earth (IHOPE), a project of climate scientists joined by humanists to integrate the story of long time-scales climate change: ihope.org.
- 14 Frank Biermann, "Earth System Governance" as a Crosscutting Theme of Global Change Research', *Global Environmental Change* 17 (2007), 326–37; Frank Biermann and Ingrid Boas, 'Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees', *Global Environmental Politics* 10 (2010), 60–88; Biermann *et al.*, 'Navigating the Anthropocene: Improving Earth System Governance', *Science* 335 (2012), 1306–7: http://ie.environment.arizona.edu/files/env/Biermann%20et%20al\_2012\_Science\_Anthropocene.pdf.
- 15 Chi-Jen Yang and Michael Oppenheimer, 'A "Manhattan Project" for Climate Change?', *Climatic Change* 80 (2007), 199–204; Larry Lohmann, 'Carbon Trading, Climate Justice and the Production of Ignorance: Ten Examples', *Development* 51 (2008), 359–65; Jaap C. J. Kwadijk *et al.*, 'Using Adaptation Tipping Points to Prepare for Climate Change and Sea Level Rise: A Case Study in the Netherlands', *Wiley Interdisciplinary Reviews: Climate Change* 1 (2010), 729–40.
- 16 Kees Klein Goldewijk, 'Estimating Global Land Use Change over the Past 300 Years: The HYDE Database', Global Biogeochemical Cycles 15 (2001), 417–33; Goldewijk, 'Three Centuries of Global Population Growth: A Spatial Referenced Population (Density) Database for 1700–2000', Population and Environment 26 (2005), 343–67; Erle C. Ellis et al., 'Anthropogenic Transformation of the Biomes, 1700 to 2000', Global Ecology and Biogeography 19 (2010), 589–606; Goldewijk et al., 'The HYDE 3.1 Spatially Explicit Database of Human-Induced Global Land-Use Change over the Past 12,000 Years', Global Ecology and Biogeography 20 (2011), 73–86; Erle C. Ellis et al., 'Used Planet: A Global History', Proceedings of the National Academy of Sciences 110 (2013), 7978–85.
- 17 Anil Markandya, 'Can Climate Change Be Reversed under Capitalism?', Development and Change 40 (2009), 1141.
- 18 David I. Stern and Michael S. Common, 'Is There an Environmental Kuznets Curve for Sulfur?', *Journal of Environmental Economics and Management* 41 (2001), 162–78; Stern 'The Rise and Fall of the Environmental Kuznets Curve', *World Development* 32 (2004), 1419–39.

- 19 Historians of Germany have documented a crisis in wood that spread through early-modern Europe and propelled the search for new colonies with unfelled timber to exploit, and later coal and oil to burn. Their work has involved examining the court records of dozens of local vicinities across Germany, documenting when and under what conditions peasants received the maximum punishment possible for chopping down trees that were not their own. Paul Warde, 'Fear of Wood Shortage and the Reality of the Woodland in Europe, c. 1450–1850', History Workshop Journal 62 (2006), 28–57; Warde, Ecology, Economy and State Formation in Early Modern Germany (Cambridge, 2006). More generally, see Astrid Kander, Paolo Manamina, and Paul Warde, Power to the People: Energy in Europe over the Last Five Centuries (Princeton, NJ, 2014).
- 20 Terje Tvedt, The River Nile in the Age of the British: Political Ecology and the Quest for Economic Power (London, 2004); Terje Tvedt et al., A History of Water, 3 vols. (London, 2006); Tvedt, Terje Oestigaard, and Richard Coopey, A History of Water, Series ii, 3 vols. (London, 2010).
- 21 Terje Tvedt, A Journey in the Future of Water (London, 2014).
- 22 Sabine Barles, 'Feeding the City: Food Consumption and Flow of Nitrogen, Paris, 1801–1914', Science of the Total Environment 375 (2007), 48–58; Barles and Laurence Lestel, 'The Nitrogen Question: Urbanization, Industrialization, and River Quality in Paris, 1830–1939', Journal of Urban History 33 (2007), 794–812; Barles, 'Urban Metabolism of Paris and Its Region', Journal of Industrial Ecology 13 (2009), 898–913; Gilles Billen et al., 'The Food-Print of Paris: Long-Term Reconstruction of the Nitrogen Flows Imported into the City from Its Rural Hinterland', Regional Environmental Change 9 (2009), 13–24; Billen et al., 'Grain, Meat and Vegetables to Feed Paris: Where Did and Do They Come from? Localising Paris Food Supply Areas from the Eighteenth to the Twenty-First Century', Regional Environmental Change 12 (2012), 325–35.
- 23 Christopher Hamlin, 'Sewage: Waste or Resource?', Environment: Science and Policy for Sustainable Development 22 (1980), 16–42; E. Marald, 'Everything Circulates: Agricultural Chemistry and Recycling Theories in the Second Half of the Nineteenth Century', Environment and History 8 (2002), 65–84; Timothy Cooper, 'Peter Lund Simmonds and the Political Ecology of Waste Utilization in Victorian Britain', Technology and Culture 52 (2011), 21–44; Peter Thorsheim, 'The Corpse in the Garden: Burial, Health, and the Environment in Nineteenth-Century London', Environmental History 16 (2011), 38–68.
- 24 Joan Thirsk, Alternative Agriculture: A History from the Black Death to the Present Day (Oxford, 1997); Martin Mulligan and Stuart Hill,

- Ecological Pioneers: A Social History of Australian Ecological Thought and Action (Cambridge, 2001); Paul B. Thompson, The Agrarian Vision: Sustainability and Environmental Ethics (Lexington, KY, 2010).
- 25 Robin, 'Histories for Changing Times', 339-40.
- 26 Joshua J. Yates, 'Abundance on Trial: The Cultural Significance of "Sustainability", *The Hedgehog Review* 14 (2012), 22.
- 27 Yates, 'Abundance on Trial', 12.
- 28 Mulligan and Hill, Ecological Pioneers.
- 29 Anil Agarwal and Sunita Narain, Global Warming in an Unequal World: A Case of Environmental Colonialism (New Delhi, 1991); Andreas Malm and Alf Hornborg, 'The Geology of Mankind? A Critique of the Anthropocene Narrative', The Anthropocene Review (2014): doi: 10.1177/2053019613516291. For a contrary view on the importance of blame to environmental history, see Paul S. Sutter, 'The World with Us: The State of American Environmental History', Journal of American History 100 (2013), 98.
- 30 James C. Scott, Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed (New Haven, 1998); Fredrik Albritton Jonsson, Enlightenment's Frontier: The Scottish Highlands and the Origins of Environmentalism (New Haven, 2013).
- 31 Malm and Hornborg, 'The Geology of Mankind?', 3. The quotation included is from John Lewis Gaddis, *The Landscape of History* (Oxford, 2002), 96.
- 32 Peter Linebaugh, 'Enclosures from the Bottom Up', Radical History Review 108 (2010), 11-27; Anant Maringanti et al., 'Tragedy of the Commons Revisited (1)', Economic and Political Weekly 47 (2012), 10-13; Michael Heller, 'The Tragedy of the Anticommons: A Concise Introduction and Lexicon', The Modern Law Review 76 (2013), 6-25; Kenneth R. Olwig, 'Globalism and the Enclosure of the Landscape Commons', in Ian D. Rotherham (ed.), Cultural Severance and the Environment: The Ending of Traditional and Customary Practice on Commons and Landscapes Managed in Common (Dordrecht, 2013), 31-46. See also the abundant scholarship on the history of the commons in Elinor Ostrom et al., Digital Library of the Commons: http://dlc.dlib. indiana.edu/dlc/. Ostrom's own scholarship on the commons was less about historical duration than the derivation of abstract principles that seemed to characterise the best-lasting of these commons. The literature on the enclosure of the European commons is useful to think about here: Leigh Shaw-Taylor, 'Parliamentary Enclosure and the Emergence of an English Agricultural Proletariat', Journal of Economic History 61 (2001), 640-62.
- 33 Marsha L. Weisiger, Dreaming of Sheep in Navajo Country (Seattle, 2009).

- 34 Nathan F. Sayre, 'The Genesis, History, and Limits of Carrying Capacity', *Annals of the Association of American Geographers* 98 (2008), 120–34.
- 35 Connelly, Fatal Misconception; Bashford, Global Population.
- 36 Michael Redclift, 'Sustainable Development (1987–2005): An Oxymoron Comes of Age', *Sustainable Development* 13 (2005), 212–27; Chris Sneddon, Richard B. Howarth, and Richard B. Norgaard, 'Sustainable Development in a Post-Brundtland World', *Ecological Economics* 57 (2006), 253–68; Paul B. Thompson, *The Agrarian Vision: Sustainability and Environmental Ethics* (Lexington, KY, 2010), 197–200.
- 37 Angus Burgin, *The Great Persuasion: Reinventing Free Markets Since the Depression* (Cambridge, MA, 2012).
- 38 David Harvey, A Brief History of Neoliberalism (Oxford, 2005); Wolfgang Streeck, Buying Time: The Delayed Crisis of Democratic Capitalism (London, 2014).
- 39 Eric Schmidt and Jared Cohen, *The New Digital Age: Transforming Nations, Businesses, and Our Lives* (New York, 2014).
- 40 Francis Fukuyama, *The End of History and the Last Man* (New York, 1992); Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York, 1996).
- 41 Errol Henderson, 'Culture or Contiguity? Ethnic Conflict, the Similarity of States, and the Onset of Interstate War, 1820-1989', Journal of Conflict Resolution 41 (1997), 649-68; Henderson, 'The Democratic Peace through the Lens of Culture, 1820-1989', International Studies Quarterly 42 (1998), 461-84; Manus I. Midlarsky, 'Democracy and Islam: Implications for Civilizational Conflict and the Democratic Peace', International Studies Quarterly 42 (1998), 485-511; Eric Weede, 'Islam and the West: How Likely Is a Clash of These Civilizations?', International Review of Sociology 8 (1998), 183–95; Bruce M. Russett, John R. Oneal, and Michaelene Cox, 'Clash of Civilizations, or Realism and Liberalism Déjà Vu? Some Evidence', Journal of Peace Research 37 (2000), 583-608; Giacomo Chiozza, 'Is There a Clash of Civilizations? Evidence from Patterns of International Conflict Involvement, 1946-97', Journal of Peace Research 39 (2002), 711-34; Tanja Ellingsen, 'Toward a Revival of Religion and Religious Clashes?', Terrorism and Political Violence 17 (2005), 305-32; Kunihiko Imai, 'Culture, Civilization, or Economy? Test of the Clash of Civilizations Thesis', International Journal on World Peace 23 (2006), 3-26; Mustafa Aydin and Çınar Özen, 'Civilizational Futures: Clashes or Alternative Visions in the Age of Globalization?', Futures, Special Issue: Futures for Multiple Civilizations, 42 (2010), 545-52; Alexis Pasichny, 'Two Methods of Analysis for Huntington's "Clash of Civilizations", Challenges of Modern Technology 3 (2012): http://yadda.icm.edu.pl/baztech/element/

- bwmeta1.element.baztech-ddff88f7-7650-49d5-8164-033422bode1e/c/Pasichny.pdf.
- 42 Shireen Hunter and Huma Malik, *Modernization, Democracy, and Islam* (Westport, CT, 2005).
- 43 David Graeber, Debt: The First 5,000 Years (Brooklyn, NY, 2010).
- 44 David Armitage, *The Declaration of Independence: A Global History* (Cambridge, MA, 2007); Andreas Wimmer and Yuval Feinstein, 'The Rise of the Nation-State Across the World, 1816 to 2001', *American Sociological Review* 75 (2010), 764–90.
- 45 Michael Goldman, Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization (New Haven, 2005); Amy L. Sayward, The Birth of Development: How the World Bank, Food and Agriculture Organization, and World Health Organization Changed the World, 1945–1965 (Kent, OH, 2006); Mark Mazower, Governing the World: The History of an Idea (London, 2012); Patricia Clavin, Securing the World Economy: The Reinvention of the League of Nations, 1920–1946 (Oxford, 2013).
- 46 Angus Lindsay Wright, *To Inherit the Earth: The Landless Movement and the Struggle for a New Brazil* (Oakland, CA, 2003); Wendy Wolford, *This Land Is Ours Now: Social Mobilization and the Meanings of Land in Brazil* (Durham, NC, 2010).
- 47 Jo Guldi, *Roads to Power: Britain Invents the Infrastructure State* (Cambridge, мA, 2012).
- 48 Fred Turner, From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism (Chicago, 2006); Matthew Hilton, 'Politics Is Ordinary: Non-Governmental Organizations and Political Participation in Contemporary Britain', Twentieth Century British History 22 (2011), 230–68; Jo Guldi, 'Can Participatory Maps Save the World?' (talk at Brown University, 7 November 2013): https://www.youtube.com/watch?v=tYL4pVUW7 Lg&list=PLTiEffrOcz\_7MwEs7L79ocdSIVhuLXM22&index=11.
- 49 Penny Summerfield, 'Mass-Observation: Social Research or Social Movement?', *Journal of Contemporary History* 20 (1985), 439–52; David Matless, 'Regional Surveys and Local Knowledges: The Geographical Imagination in Britain, 1918–39', *Transactions of the Institute of British Geographers*, New Series, 17 (1992), 464–80; Matless, 'The Uses of Cartographic Literacy: Mapping, Survey and Citizenship in Twentieth-Century Britain', in Dennis E. Cosgrove (ed.), *Mappings* (London, 1999), 193–212; James Hinton, *The Mass Observers: A History*, 1937–1949 (Oxford, 2013).
- 50 David Ludden, 'Patronage and Irrigation in Tamil Nadu: A Long-Term View', *Indian Economic & Social History Review* 16 (1979), 347–65; Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800–1854* (Cambridge, 1998); Timothy Mitchell,

- Rule of Experts: Egypt, Techno-Politics, Modernity (Berkeley, 2002); Rohan D'Souza, Drowned and Damned: Colonial Capitalism and Flood Control in Eastern India (New Delhi, 2006).
- 51 Terje Tvedt, 'NGOs' Role at "The End of History": Norwegian Policy and the New Paradigm', Forum for Development Studies 21 (1994), 139–66; J. Petras, 'Imperialism and NGOs in Latin America', Monthly Review New York 49 (1997), 10–27; Akira Iriye, 'A Century of NGOs', Diplomatic History 23 (1999), 421–35; Diana Mitlin, Sam Hickey, and Anthony Bebbington, 'Reclaiming Development? NGOs and the Challenge of Alternatives', World Development 35 (2007), 1699–720.
- 52 John Markoff and Verónica Montecinos, 'The Ubiquitous Rise of Economists', *Journal of Public Policy* 13 (1993), 37–68; Marion Fourcade, 'The Construction of a Global Profession: The Transnationalization of Economics', *American Journal of Sociology*, 112 (2006), 145–94.
- 53 Richard White, *Railroaded: The Transcontinentals and the Making of Modern America* (New York, 2011).
- Nick Cullather, "The Target Is the People": Representations of the Village in Modernization and US National Security Doctrine', Cultural Politics: An International Journal 2 (2006), 29–48; Cullather, 'The Foreign Policy of the Calorie', The American Historical Review 112 (2007), 337–64; Greg Grandin, Fordlandia: The Rise and Fall of Henry Ford's Forgotten Jungle City (New York, 2009); Cullather, The Hungry World: America's Cold War Battle Against Poverty in Asia (Cambridge, MA, 2010).
- 55 Richard R. Nelson and Sydney G. Winter, *An Evolutionary Theory of Economic Change* (Cambridge, MA, 1982); Nelson and Winter, 'Evolutionary Theorizing in Economics', *Journal of Economic Perspectives* 16 (2002), 23–46.
- 56 Zachary Karabell, *The Leading Indicators: A Short History of the Numbers that Rule Our World* (New York, 2014), 52–72.
- 57 Thomas Piketty, Le Capital au XXIe siècle (Paris, 2013); Piketty, Capital in the Twenty-First Century (trans.) Arthur Goldhammer (Cambridge, MA, 2014).
- 58 Piketty, Capital in the Twenty-First Century, 11–17.
- 59 Simon Kuznets and Elizabeth Jenks, *Shares of Upper Income Groups in Income and Savings* (Cambridge, MA, 1953); Simon Kuznets, 'Economic Growth and Income Inequality', *American Economic Review* 45 (1955), 1–28.
- 60 Chris Giles, 'Data Problems with Capital in the 21st Century': http://blogs.ft.com/money-supply/2014/05/23/data-problems-with-capital-in-the-21st-century; Thomas Piketty, 'Technical Appendix of the Book, Capital in the 21st Century' (21 May 2014): http://piketty.pse.ens.fr/files/capital21c/en/Piketty2014TechnicalAppendixResponsetoFT.pdf.

- 61 Ian Hacking, The Emergence of Probability: A Philosophical Study of Early Ideas About Probability, Induction and Statistical Inference (Cambridge, 1975); Theodore M. Porter, The Rise of Statistical Thinking, 1820–1900 (Princeton, NJ, 1986); Ian Hacking, The Taming of Chance (Cambridge, 1990); Porter, Trust in Numbers: The Pursuit of Objectivity in Science and Public Life (Princeton, NJ, 1995); Alain Desrosières, The Politics of Large Numbers: A History of Statistical Reasoning (Cambridge, MA, 2002); Michael Ward, Quantifying the World: UN Ideas and Statistics (Bloomington, IN, 2004); Karabell, The Leading Indicators.
- 62 Sebastian De Grazia, Of Time, Work, and Leisure (New York, 1962); Ivan Illich, Toward a History of Needs (New York, 1978).
- 63 Facundo Alvaredo, Anthony Atkinson, Thomas Piketty, and Emmanuel Saez, 'The World Top Incomes Database': http://topincomes.par-isschoolofeconomics.eu/.
- 64 Piketty, Capital in the Twenty-First Century, 33.
- 65 Tony Judt, 'A Clown in Regal Purple: Social History and the Historians', *History Workshop Journal* 7 (1979), 84–5 (on Scott and Sewell, among others). Judt was, however, critical of the effects of Braudel's *longue durée* on the 'dismantl[ing] of the historical event altogether. One result of this is a glut of articles about minute and marginal matters': *ibid.*, 85.
- 66 Quoted by Grace V. Leslie, 'Seven Hundred Pages of "Minor Revisions" from the Soviet Union: Caroline Ware, the UNESCO *History of Mankind*, and the Trials of Writing International History in a Bi-Polar World, 1954–66', paper presented at the annual meeting of the American Historical Association, New Orleans, Louisiana, 3 January 2013; on the UNESCO project more generally, see Gilbert Allardyce, "Toward World History: American Historians and the Coming of the World History Course', *Journal of World History* 1 (1990), 26–40.
- 67 Frederick Cooper and Randall M. Packard (eds.), International Development and the Social Sciences: Essays on the History and Politics of Knowledge (Berkeley, 1997); Gilbert Rist, The History of Development: From Western Origins to Global Faith (New York, 2002); Nils Gilman, Mandarins of the Future: Modernization Theory in Cold War America (Baltimore, 2007).
- 68 Jean-Claude Passeron and Jacques Revel, 'Penser par cas. Raissoner à partir de singularités', in Passeron and Revel (eds.), *Penser par cas* (Paris, 2005), 9–44.
- 69 Markoff and Montecinos, 'The Ubiquitous Rise of Economists'; Gerald D. Suttles and Mark D. Jacobs, *Front Page Economics* (Chicago, 2011).
- 70 Elegies for this moment include Russell Jacoby, *The Last Intellectuals:* American Culture in the Age of Academe (New York, 1987); Michael Bérubé and Cary Nelson (eds.), *Higher Education under Fire: Politics*,

- Economics, and the Crisis of the Humanities (New York, 1995); Richard A. Posner, Public Intellectuals: A Study of Decline (Cambridge, MA, 2003); Jo Guldi, 'The Surprising Death of the Public Intellectual: A Manifesto', Absent I (2008): http://archive.org/details/TheSurprisingDeathOfThe PublicIntellectualAManifestoForRestoration.
- 71 Daniel Lord Smail, On Deep History and the Brain (Berkeley, 2008); Smail, 'Beyond the Longue Durée: Human History and Deep Time', Perspectives on History, 50 (2012), 59–60.
- 72 Denis E. Cosgrove, Apollo's Eye: A Cartographic Genealogy of the Earth in the Western Imagination (Baltimore, 2001); John R. Gillis, The Human Shore: Seacoasts in History (Chicago, 2012).
- 73 Constantin Fasolt, The Limits of History (Chicago, 2004), 19.
- 74 Jeremy Adelman, 'Latin American Longues Durées', Latin American Research Review 39 (2004), 224; Thomas W. Laqueur, 'Sexuality and the Transformation of Culture: The Longue Durée', Sexualities 12 (2009), 418; Susan Gillman, 'Oceans of Longues Durées', PMLA 127 (2012), 328.
- 75 Matthew Connelly, 'The Cold War in the Longue Durée: Global Migration, Public Health, and Population Control', in Melvyn P. Leffler and Odd Arne Westad (eds.), The Cambridge History of the Cold War, 3 vols. (Cambridge, 2009), III 466-88; William M. Johnston, Visionen der langen Dauer Österreichs (Vienna, 2009); Suzanne L. Marchand, 'Orientalism and the Longue Durée', in Marchand, German Orientalism in the Age of Empire: Religion, Race, and Scholarship. (Cambridge, 2009), 1–52; Laurence Lux-Sterritt and Carmen M. Mangion, 'Gender, Catholicism and Women's Spirituality over the Longue Durée', in Lux-Sterritt and Mangion (eds.), Gender, Catholicism and Spirituality: Women and the Roman Catholic Church in Britain and Europe, 1200–1900 (Basingstoke, 2011), 1–18; Alexander A. Bauer and Owen P. Doonan, 'Fluid Histories: Culture, Community, and the *Longue Durée* of the Black Sea World', in Ruxandra Ivan (ed.), New Regionalism or No Regionalism?: Emerging Regionalism in the Black Sea Area (Farnham, 2012), 13–30; Dirk Hoerder, 'Migrations and Belongings: A Longue-Durée Perspective', in Emily S. Rosenberg (ed.), A World Connecting, 1870–1945 (Cambridge, MA, 2012), 444-67; Julia Clancy-Smith, 'From Sidi Bou Zid to Sidi Bou Said: A Longue Durée Approach to the Tunisian Revolutions', in Mark L. Haas and David W. Lesch (eds.), The Arab Spring: Change and Resistance in the Middle East (Boulder, CO, 2013), 13-34; Jörn Leonhard, 'Introduction: The Longue Durée of Empire: Comparative Semantics of a Key Concept in Modern European History', Contributions to the History of Concepts 8 (2013), 1-25.
- 76 Ben Kiernan, Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur (New Haven, 2007); Diarmaid MacCulloch, A History of Christianity: The First Three Thousand Years (London, 2009);

- Ian Morris, Why the West Rules For Now: The Patterns of History, and What They Reveal About the Future (New York, 2010); Max Boot, Invisible Armies: An Epic History of Guerrilla Warfare from Ancient Times to the Present (New York, 2012); Joyce E. Chaplin, Round About the Earth: Circumnavigation from Magellan to Orbit (New York, 2012); Lawrence Freedman, Strategy: A History (Oxford, 2013); Morris, The Measure of Civilization: How Social Development Decides the Fate of Nations (Princeton, 2013); David Nirenberg, Anti-Judaism: The Western Tradition (New York, 2013); Francisco Bethencourt, Racisms: From the Crusades to the Twentieth Century (Princeton, NJ, 2013).
- 77 Cynthia Stokes Brown, Big History: From the Big Bang to the Present (New York, 2007); Fred Spier, Big History and the Future of Humanity (Chichester, 2010); David Christian, Maps of Time: An Introduction to Big History, new edn (Berkeley, 2011). The questions treated in Harriet Swain (ed.), Big Questions in History (London, 2005), are 'big' in the sense of general, not because they necessarily encompass large expanses of time or space.
- 78 Andrew Shryock and Daniel Lord Smail (eds.), *Deep History: The Architecture of Past and Present* (Berkeley, 2011); Smail and Shryock, 'History and the *Pre'*, *American Historical Review* 118 (2013), 709–37.
- 79 Dipesh Chakrabarty, 'The Climate of History: Four Theses', *Critical Inquiry* 35 (2009), 197–222; Chakrabarty, 'Postcolonial Studies and the Challenge of Climate Change', *New Literary History* 43 (2012), 1–18; Fredrik Albritton Jonsson, 'The Industrial Revolution in the Anthropocene', *The Journal of Modern History* 84 (2012), 679–96; Alison Bashford, 'The Anthropocene is Modern History: Reflections on Climate and Australian Deep Time', *Australian Historical Studies* 44 (2013), 341–9.
- 80 James Vernon, Distant Strangers: How Britain Became Modern (Berkeley, 2014), 132.

### CHAPTER 4 BIG QUESTIONS, BIG DATA

- I Ann Blair, 'Reading Strategies for Coping with Information Overload ca. 1550–1700', *Journal of the History of Ideas* 64 (2003), 11–28; Brian W. Ogilvie, 'The Many Books of Nature: Renaissance Naturalists and Information Overload', *Journal of the History of Ideas* 64 (2003), 29–40; Daniel Rosenberg, 'Early Modern Information Overload', *Journal of the History of Ideas* 64 (2003), 1–9; Ann Blair, *Too Much to Know: Managing Scholarly Information Before the Modern Age* (New Haven, 2010).
- 2 Prabhakar Raghavan, 'It's Time to Scale the Science in the Social Sciences', *Big Data and Society* I (2014): doi:10.1177/2053951714532240.

- 3 See, for example, David Geggus, 'Sex Ratio, Age and Ethnicity in the Atlantic Slave Trade: Data from French Shipping and Plantation Records', The Journal of African History 30 (1989), 23-44; Thomas C. Peterson and Russell S. Vose, 'An Overview of the Global Historical Climatology Network Temperature Database', Bulletin of the American Meteorological Society 78 (1997), 2837-49; Stephen C. Trombulak and Richard Wolfson, 'Twentieth-Century Climate Change in New England and New York, USA', Geophysical Research Letters 31 (2004), 1-4; Indra De Soysa and Eric Neumayer, 'Resource Wealth and the Risk of Civil War Onset: Results from a New Dataset of Natural Resource Rents, 1970–1999', Conflict Management and Peace Science 24 (2007), 201–18; David Eltis, 'The US Transatlantic Slave Trade, 1644–1867: An Assessment', Civil War History 54 (2008), 347–78; Nathan Nunn, 'The Long-Term Effects of Africa's Slave Trades', The Quarterly Journal of Economics 123 (2008), 139-76; Kenneth E. Kunkel et al., 'Trends in Twentieth-Century US Snowfall Using a Quality-Controlled Dataset', Journal of Atmospheric and Oceanic Technology 26 (2009), 33-44; Nathan Nunn and Leonard Wantchekon, The Slave Trade and the Origins of Mistrust in Africa (National Bureau of Economic Research, 2009): www. nber.org/papers/w14783; David Eltis and David Richardson, 'The Trans-Atlantic Slave Trade Database Voyages: "Introductory Maps", Map (Emory University: Digital Library Research Initiative, 1 January 2010): https://saylor.longsight.com/handle/1/12201; Lakshmi Iver, 'Direct versus Indirect Colonial Rule in India: Long-Term Consequences', The Review of Economics and Statistics 92 (2010), 693-713; Adrian M. Lister, 'Natural History Collections as Sources of Long-Term Datasets', Trends in Ecology & Evolution 26 (2011), 153-4; Enric Tello and Marc Badía-Miró, 'Land-Use Profiles of Agrarian Income and Land Ownership Inequality in the Province of Barcelona in Mid-Nineteenth Century', January 2011: http://repositori.uji.es/xmlui/ handle/10234/20513; Patrick Manning, 'Historical Datasets on Africa and the African Atlantic', Journal of Comparative Economics, Slavery, Colonialism and Institutions Around the World, 40 (2012), 604-7; Colin F. Wilder, 'Teaching Old Dogs New Tricks: Four Motifs of Legal Change from Early Modern Europe', History and Theory 51 (2012), 18-41; G. S. J. Hawkins et al., 'Data Rescue and Re-Use: Recycling Old Information to Address New Policy Concerns', Marine Policy 42 (2013), 91-8.
- 4 Edward Tufte, *The Visual Display of Quantitative Information*, 2nd edn (Cheshire, CT, 2001); Daniel Rosenberg and Anthony Grafton, *Cartographies of Time* (New York, 2010).
- 5 Tomiko Yamaguchi and Craig K. Harris, 'The Economic Hegemonization of Bt Cotton Discourse in India', *Discourse & Society* 15 (2004),

- 467–91; Anabela Carvalho and Jacquelin Burgess, 'Cultural Circuits of Climate Change in UK Broadsheet Newspapers, 1985–2003', *Risk Analysis* 25 (2005), 1457–69; Francis L. F. Lee, Chin-Chuan Lee, and Nina Luzhou Li, 'Chinese Peasants in the Process of Economic Reform: An Analysis of *New York Times*'s and *Washington Post*'s Opinion Discourses, 1981–2008', *Communication, Culture & Critique* 4 (2011), 164–83; Alan Partington, 'The Changing Discourses on Antisemitism in the UK Press from 1993 to 2009: A Modern-Diachronic Corpus-Assisted Discourse Study', *Journal of Language and Politics* 11 (2012), 51–76; Bruno Turnheim and Frank W. Geels, 'Regime Destabilisation as the Flipside of Energy Transitions: Lessons from the History of the British Coal Industry (1913–1997)', *Energy Policy*, Special Section: Past and Prospective Energy Transitions Insights from History, 50 (2012), 35–49.
- 6 John Cook *et al.*, 'Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature', *Environmental Research Letters* 8 (2013): doi:10.1088/1748-9326/8/2/024024.
- 7 Brad Pasanek and D. Sculley, 'Mining Millions of Metaphors', Literary and Linguistic Computing 23 (2008), 345–60; D. Sculley and Bradley M. Pasanek, 'Meaning and Mining: The Impact of Implicit Assumptions in Data Mining for the Humanities', Literary and Linguistic Computing 23 (2008), 409–24; Frederick W. Gibbs and Daniel J. Cohen, 'A Conversation with Data: Prospecting Victorian Words and Ideas', Victorian Studies 54 (2011), 69–77; Joanna Guldi, 'The History of Walking and the Digital Turn: Stride and Lounge in London, 1808–1851', The Journal of Modern History 84 (2012), 116–44; Matthew Lee Jockers, Macroanalysis: Digital Methods and Literary History (Urbana, 2013); Ted Underwood, 'We Don't Already Understand the Broad Outlines of Literary History', The Stone and the Shell 8 (2013): http://tedunderwood.com/2013/02/08/we-dont-already-know-the-broad-outlines-of-literary-history/.
- 8 http://papermachines.org/; www.zotero.org/.
- 9 Jo Guldi, The Long Land War: A Global History of Land Reform, c. 1860– Present (forthcoming).
- 10 Daniel Rosenberg's work on the Google Books corpus suggests that the reasons for turns in Ngrams have a great deal to do with the corpus selected for Google Books. Nonetheless, Ngrams remain useful for doing transcontinental, transtemporal comparisons, comparing the rise of words like 'holocaust' and 'shoah' across English, German, French, Russian, and Hebrew. But in aggregate, supplemented by other kinds of story-telling, the tools of abstraction and synthesis can also offer insight into the basic events and struggles that gave us the modern world. Geoffrey Nunberg, 'Counting on Google Books', Chronicle of Higher Education (16 December 2010): http://chronicle.

- com/article/Counting-on-Google-Books/125735; Anthony Grafton, 'Loneliness and Freedom', *AHA Perspectives* (March 2011): www.historians.org/Perspectives/issues/2011/1103/1103pre1.cfm; Erez Aiden and Jean-Baptiste Michel, *Uncharted: Big Data as a Lens on Human Culture* (New York, 2013); Daniel Rosenberg, 'Data Before the Fact', in Lisa Gitelman (ed.), 'Raw Data' Is an Oxymoron (Cambridge, MA, 2013), 15–40.
- II Franco Moretti, *Graphs, Maps, Trees: Abstract Models for a Literary History* (New York, 2007); Ben Schmidt, *Sapping Attention*: http://sappingattention.blogspot.com/.
- 12 http://books.google.com/ngrams; www.wordle.net/; http://papermachines.org/.
- 13 On the billion words of post-classical Latin now available for digital analysis, see David Bamman and David Smith, 'Extracting Two Thousand Years of Latin from a Million Book Library', *Journal on Computing and Cultural Heritage* 5 (2012), 1–13.
- 14 Michael Friendly, 'A.-M. Guerry's "Moral Statistics of France": Challenges for Multivariable Spatial Analysis', *Statistical Science* 22 (2007), 368–99; Friendly, 'A Brief History of Data Visualization', in Chun-houh Chen, Wolfgang Härdle, and Antony Unwin, *Handbook of Data Visualization* (Berlin, 2008), 15–56; Friendly, Matthew Sigal, and Derek Harnanansingh, 'The Milestones Project: A Database for the History of Data Visualization' (2012): http://datavis.ca/papers/MilestonesProject.pdf.
- Tim Hitchcock and Robert Shoemaker, 'Digitising History from Below: The Old Bailey Proceedings Online, 1674–1834', History Compass 4 (2006), 1–10: www.oldbaileyonline.org/; https://sites.google.com/site/colinwilder/.
- 16 Central Intelligence Agency, Potential Implications of Trends in World Population, Food Production and Climate, Report No. OPR-401 (Washington, DC, 1974); Crispin Tickell, Climate Change and World Affairs (Cambridge, MA, 1977), 64; Jill Williams (ed.), Carbon Dioxide, Climate and Society (Oxford, 1978); Council of Environmental Quality, Global Energy Futures and the Carbon Dioxide Problem (Washington, DC, 1981); Sheila Jasanoff, 'Image and Imagination: The Formation of Global Environmental Conscious-ness', in Clark Miller and Paul N. Edwards (eds.), Changing the Atmosphere (Cambridge, MA, 2001), 309–37; Paul N. Edwards, A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming (Cambridge, MA, 2010); Mike Hulme, 'Reducing the Future to Climate: A Story of Climate Determinism and Reductionism', Osiris 26 (2011), 245–66.
- 17 G. van der Schrier *et al.*, 'A scPDSI-Based Global Data Set of Dry and Wet Spells for 1901–2009', *Journal of Geophysical Research: Atmospheres* 118 (2013), 4025–48.

- 18 Benjamin S. Felzer, 'Carbon, Nitrogen, and Water Response to Climate and Land Use Changes in Pennsylvania During the 20th and 21st Centuries', *Ecological Modelling* 240 (2012), 49–63.
- 19 C. J. Caseldine and C. Turney, 'The Bigger Picture: Towards Integrating Palaeoclimate and Environmental Data with a History of Societal Change', *Journal of Quaternary Science* 25 (2010), 88–93.
- 20 Joseph A. Tainter, 'Energy, Complexity, and Sustainability: A Historical Perspective', *Environmental Innovation and Societal Transitions* 1 (2011), 89–95; Geoffrey Parker, *Global Crisis: War, Climate Change and Catastrophe in the Seventeenth Century* (New Haven, 2013); Harry Verhoeven, 'Climate Change, Conflict and Development in Sudan: Global Neo-Malthusian Narratives and Local Power Struggles', *Development and Change* 42 (2011), 679–707.
- 21 www.eia.gov/totalenergy/data/annual/; http://data.un.org/; www.euromonitor.com; www.imf.org/external/pubs/cat/longres.cfm?sk=18674.o.
- 22 Robert C. Allen et al., 'Preliminary Global Price Comparisons, 1500-1870', paper presented at the XIII Congress of the International Economic History Association, Buenos Aires (July 22–26), 2002: www.iisg. nl/hpw/papers/lindert.pdf; Livio Di Matteo, 'The Effect of Religious Denomination on Wealth: Who Were the Truly Blessed?', Social Science History 31 (2007), 299–341; Kunkel et al., 'Trends in Twentieth-Century US Snowfall', 33–44; W. Bradford Wilcox et al., 'No Money, No Honey, No Church: The Deinstitutionalization of Religious Life Among the White Working Class', Research in the Sociology of Work 23 (2012), 227-50; Tobias Preis et al., 'Quantifying the Behavior of Stock Correlations Under Market Stress', Scientific Reports 2 (2012); Carles Boix, Michael Miller, and Sebastian Rosato, 'A Complete Data Set of Political Regimes, 1800–2007', Comparative Political Studies 46 (2013), 1523–54; Peter H. Lindert and Jeffrey G. Williamson, 'American Incomes Before and After the Revolution', The Journal of Economic History 73 (2013), 725-65.
- 23 Allen *et al.*, 'Preliminary Global Price Comparisons, 1500–1870'; Konstantinos M. Andreadis *et al.*, 'Twentieth-Century Drought in the Conterminous United States', *Journal of Hydrometeorology 6* (2005), 985–1001; Kees Klein Goldewijk, 'Three Centuries of Global Population Growth: A Spatial Referenced Population (Density) Database for 1700–2000', *Population and Environment 26* (2005), 343–67; Kyle F. Davis *et al.*, 'Global Spatio-Temporal Patterns in Human Migration: A Complex Network Perspective', *PLoS ONE 8* (2013): e53723; Manning, 'Historical Datasets on Africa and the African Atlantic', 604–7; Zeev Maoz and Errol A. Henderson, 'The World Religion Dataset, 1945–2010: Logic, Estimates, and Trends', *International Interactions* 39 (2013), 265–91.
- 24 David Eltis and David Richardson, *Atlas of the Transatlantic Slave Trade* (New Haven, 2010): www.slavevoyages.org/tast/index.faces.

- 25 Blair, *Too Much to Know*, 2, crediting the invention of the term 'information age' to Fritz Machlup, *The Production and Distribution of Knowledge in the United States* (Princeton, NJ, 1962).
- 26 Robert William Fogel and Stanley L. Engerman, 'The Relative Efficiency of Slavery: A Comparison of Northern and Southern Agriculture in 1860', Explorations in Economic History 8 (1971), 353–67; Fogel and Engerman, Time on the Cross: The Economics of American Negro Slavery (Boston, 1974); Fogel, 'The Limits of Quantitative Methods in History', The American Historical Review 80 (1975), 329–50; Herbert G. Gutman, Slavery and the Numbers Game: A Critique of Time on the Cross (Urbana, 1975); Samuel P. Hays, 'Scientific versus Traditional History: The Limitations of the Current Debate', Historical Methods: A Journal of Quantitative and Interdisciplinary History 17 (1984), 75–8; Fogel, The Slavery Debates, 1952–1990: A Retrospective (Baton Rouge, LA, 2003).
- 27 Christopher Dyer, 'Poverty and Its Relief in Late Medieval England', Past & Present 216 (2012), 41–78. Other experiments with probate records have tested which religious denomination was preferred by the wealthiest individuals in the nineteenth century.
- 28 Thomas N. Maloney, 'Migration and Economic Opportunity in the 1910s: New Evidence on African-American Occupational Mobility in the North', *Explorations in Economic History* 38 (2001), 147–65; Maloney, 'Ghettos and Jobs in History: Neighborhood Effects on African American Occupational Status and Mobility in World War I-Era Cincinnati', *Social Science History* 29 (2005), 241–67.
- 29 J. Foweraker and R. Krznaric, 'How to Construct a Database of Liberal Democratic Performance', *Democratization* 8 (2001), 1–25; Scott Gates *et al.*, 'Institutional Inconsistency and Political Instability: Polity Duration, 1800–2000', *American Journal of Political Science* 50 (2006), 893–908; Lee B. Becker, Tudor Vlad, and Nancy Nusser, 'An Evaluation of Press Freedom Indicators', *International Communication Gazette* 69 (2007), 5–28.
- 30 Sara McLaughlin et al., 'Timing the Changes in Political Structures: A New Polity Database', The Journal of Conflict Resolution 42 (1998), 231–42; Tatu Vanhanen, 'A New Dataset for Measuring Democracy, 1810–1998', Journal of Peace Research 37 (2000), 251–65; Nils Petter Gleditsch et al., 'Armed Conflict 1946–2001: A New Dataset', Journal of Peace Research 39 (2002), 615–37; Andreas Wimmer and Brian Min, 'The Location and Purpose of Wars Around the World: A New Global Dataset, 1816–2001', International Interactions 35 (2009), 390–417; Michael A. Elliott, 'The Institutional Expansion of Human Rights, 1863–2003: A Comprehensive Dataset of International Instruments', Journal of Peace Research 48 (2011), 537–46.
- 31 Jeffrey G. Williamson, Winners and Losers over Two Centuries of Globalization (National Bureau of Economic Research, 2002): www.nber.org. revproxy.brown.edu/papers/w9161; Peter H. Lindert and Jeffrey G.

Williamson, 'Does Globalization Make the World More Unequal?', in Globalization in Historical Perspective (University of Chicago Press, 2003), 227–76: www.nber.org.revproxy.brown.edu/chapters/c9590.pdf; David R. Green et al., Men. Women, and Money: Perspectives on Gender. Wealth, and Investment 1850-1930 (Oxford, 2011); Emily R. Merchant, Brian Gratton, and Myron P. Gutmann, 'A Sudden Transition: Household Changes for Middle Aged US Women in the Twentieth Century', Population Research and Policy Review 31 (2012), 703–26; Peter H. Lindert and Jeffrey G. Williamson, American Incomes 1774–1860 (National Bureau of Economic Research, 2012): www.nber.org. revproxy.brown.edu/papers/wi8396; John Parman, 'Good Schools Make Good Neighbors: Human Capital Spillovers in Early 20th Century Agriculture', Explorations in Economic History 49 (2012), 316-34; 'Intergenerational Occupational Mobility in Great Britain and the United States Since 1850: Comment', The American Economic Review 103 (2013), 2021–40; Jan Luiten van Zanden et al., 'The Changing Shape of Global Inequality 1820–2000; Exploring a New Dataset', Review of Income and Wealth 60 (2014), 279-97.

32 Massimo A. Bollasina, Yi Ming, and V. Ramaswamy, 'Earlier Onset of the Indian Monsoon in the Late Twentieth Century: The Role of Anthropogenic Aerosols', *Geophysical Research Letters* 40 (2013), 3715–20.

33 Aiguo Dai, Kevin E. Trenberth, and Taotao Qian, 'A Global Dataset of Palmer Drought Severity Index for 1870–2002: Relationship with Soil Moisture and Effects of Surface Warming', Journal of Hydrometeorology 5 (2004), 1117–30; Francisco Alvarez-Cuadrado and Markus Poschke, 'Structural Change Out of Agriculture: Labor Push versus Labor Pull', American Economic Journal: Macroeconomics 3 (2011), 127–58; Urs Gimmi, Thibault Lachat, and Matthias Bürgi, 'Reconstructing the Collapse of Wetland Networks in the Swiss Lowlands 1850-2000', Landscape Ecology 26 (2011), 1071–83; Hans de Moel, Jeroen C. J. H. Aerts, and Eric Koomen, 'Development of Flood Exposure in the Netherlands during the 20th and 21st Century', Global Environmental Change, Special Issue on The Politics and Policy of Carbon Capture and Storage, 21 (2011), 620-7; Tello and Badía-Miró, 'Land-Use Profiles of Agrarian Income and Land Ownership Inequality in the Province of Barcelona'; Benjamin S. Felzer, 'Carbon, Nitrogen, and Water Response to Climate and Land Use Changes in Pennsylvania During the 20th and 21st Centuries', *Ecological Modelling* 240 (2012), 49–63; Peter Sandholt Jensen and Tony Vittrup Sørensen, 'Land Inequality and Conflict in Latin America in the Twentieth Century', Defence and Peace Economics 23 (2012), 77–94; Robert H. Bates and Steven A. Block, 'Revisiting African Agriculture: Institutional Change and Productivity Growth', *The Journal* of Politics 75 (2013), 372-84.

- 34 Amartya Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford, 1981).
- 35 Álvaro Franco, Carlos Álvarez-Dardet, and Maria Teresa Ruiz, 'Effect of Democracy on Health: Ecological Study', *British Medical Journal* 329 (2004), 1421–3.
- 36 M. Rodwan Abouharb and Anessa L. Kimball, 'A New Dataset on Infant Mortality Rates, 1816–2002', *Journal of Peace Research* 44 (2007), 743–54; Tanya L. Blasbalg *et al.*, 'Changes in Consumption of Omega-3 and Omega-6 Fatty Acids in the United States During the 20th Century', *The American Journal of Clinical Nutrition* 93 (2011), 950–62; Jean M. Twenge, 'Generational Differences in Mental Health: Are Children and Adolescents Suffering More, or Less?', *The American Journal of Orthopsychiatry* 81 (2011), 469–72; Johan P. Mackenbach, Yannan Hu, and Caspar W. N. Looman, 'Democratization and Life Expectancy in Europe, 1960–2008', *Social Science & Medicine* 93 (2013), 166–75.
- 37 Joerg Baten and Matthias Blum, 'Why Are You Tall While Others Are Short? Agricultural Production and Other Proximate Determinants of Global Heights', European Review of Economic History 18 (2014), 144–65.
- 38 'Declassification Engine': www.declassification-engine.org/.
- 39 R. Rudy Higgens-Evenson, 'Financing a Second Era of Internal Improvements: Transportation and Tax Reform, 1890–1929', Social Science History 26 (2002), 623–51. Higgens-Evenson uses data from Richard Sylla, John B. Legler, and John Wallis, Sources and Uses of Funds in State and Local Governments, 1790–1915 (machine-readable dataset) (Ann Arbor, MI, 1995), who archived their data at the Interuniversity Consortium for Political and Social Research (ICPSR).
- 40 http://landmatrix.org/en/about/.
- 41 http://offshoreleaks.icij.org/search; https://wikileaks.org/; Nicholas Shaxson, *Treasure Islands: Tax Havens and the Men Who Stole the World* (London, 2011).
- 42 Rosemary Randall, 'Loss and Climate Change: The Cost of Parallel Narratives', *Ecopsychology* I (2009), II8–29.
- 43 Adrian M. Lister, 'Natural History Collections as Sources of Long-Term Datasets', *Trends in Ecology & Evolution* 26 (2011), 153–4; Ryan Tucker Jones, *Empire of Extinction: Russians and the North Pacific's Strange Beasts of the Sea, 1741–1867* (New York, 2014).
- 44 http://seen.co/.
- 45 https://www.recordedfuture.com/.
- 46 Quentin Hardy, 'Crushing the Cost of Predicting the Future', Bits Blog, *The New York Times*: http://bits.blogs.nytimes.com/2011/11/17/crushing-the-cost-of-predicting-the-future/?\_php=true&\_type=blogs&\_r=o.
- 47 Stephan de Spiegeleire, personal correspondence to Jo Guldi (2 January 2014).

- 48 Lea Berrang-Ford, James D. Ford, and Jaclyn Paterson, 'Are We Adapting to Climate Change?', *Global Environmental Change* 21 (2011), 25–33.
- 49 Zachary Karabell, *The Leading Indicators: A Short History of the Numbers That Rule Our World* (New York, 2014), 44.
- 50 Tatu Vanhanen, 'A New Dataset Compared with Alternative Measurements of Democracy', in Hans-Joachim Lauth, Gert Pickel, and Christian Welzel (eds.), *Demokratiemessung: Konzepte und Befunde im internationalen Vergleich* (Wiesbaden, 2000), 184–206.
- 51 Karabell, The Leading Indicators, 125, 130-5, 147-9.
- 52 Richard Grove and Vinita Damodaran, 'Imperialism, Intellectual Networks, and Environmental Change: Unearthing the Origins and Evolution of Global Environmental History', in Sverker Sörlin and Paul Warde (eds.), *Nature's End: History and the Environment* (Basingstoke, 2009), 23–49; Sörlin and Warde, 'The Problem of the Problem of Environmental History: A Re-Reading of the Field', *Environmental History* 12 (2007), 107–30.
- 53 Harold Perkin, *The Third Revolution: Professional Elites in the Modern World* (London, 1996); Max Weber, *Science as a Vocation* (1917), in Weber, *The Vocation Lectures* (ed.) David Owen and Tracy B. Strong (Indianapolis, 2004), 1–31.
- 54 Frédéric Lebaron, 'Economists and the Economic Order: The Field of Economists and the Field of Power in France', *European Societies* 3 (2001), 91–110; Stephen Turner, 'What Is the Problem with Experts?', *Social Studies of Science* 31 (2001), 123–49.
- 55 Karl R. Popper, *The Poverty of Historicism* (New York, 1961); Hayden White, *Metahistory: The Historical Imagination in Nineteenth-Century Europe* (Baltimore, 1975).
- 56 Alberto Alesina, Paola Giuliano, and Nathan Nunn, 'On the Origins of Gender Roles: Women and the Plough', *The Quarterly Journal of Economics* 128 (2013), 469–530.
- 57 Diego Comin, William Easterly, and Erik Gong, Was the Wealth of Nations Determined in 1000 BC? (National Bureau of Economic Research, 2006): www.nber.org/papers/w12657.ack. See also Enrico Spolaore and Romain Wacziarg, Long-Term Barriers to Economic Development (National Bureau of Economic Research, 2013): www.nber.org/papers/w19361.
- 58 Boyd Hilton, The Age of Atonement: The Influence of Evangelicalism on Social and Economic Thought, 1785–1865 (Oxford, 1992).
- 59 Marshall Sahlins, *Stone Age Economics* (Chicago, 1972); David Graeber, *Toward an Anthropological Theory of Value: The False Coin of Our Own Dreams* (New York, 2001); Graeber, 'A Practical Utopian's Guide to the Coming Collapse', *The Baffler* 22 (2013), 23–35.

- 60 Geoffrey M. Hodgson, 'Darwin, Veblen and the Problem of Causality in Economics', *History and Philosophy of the Life Sciences* 23 (2001), 385–423.
- 61 James Vernon, *Distant Strangers: How Britain Became Modern* (Berkeley, 2014), 133.
- 62 The most formal postulation of this argument is by William H. Sewell, Jr, Logics of History: Social Theory and Social Transformation (Chicago, 2005); George Steinmetz, "Logics of History" as a Framework for an Integrated Social Science', Social Science History 32 (2008), 535–53. For an alternative set of causes particularly appropriate to the Anthropocene, see J. Donald Hughes, 'Three Dimensions of Environmental History', Environment and History 14 (2008), 319–30.
- 63 Compare David J. Staley, *History and Future: Using Historical Thinking to Imagine the Future* (Lanham, MD, 2007) for parallels between the multicausality of the past and the open-endedness of multiple futures.
- 64 For some recent examples, see Helen Shenton, 'Virtual Reunification, Virtual Preservation and Enhanced Conservation', Alexandria 21 (2009), 33–45; David Zeitlyn, 'A Dying Art? Archiving Photographs in Cameroon', Anthropology Today 25 (2009), 23–6; Clifford Lynch, 'Defining a National Library in a Digital World: Dame Lynne Brindley at the British Library', Alexandria 23 (2012), 57–63; Jian Xu, 'A Digitization Project on Dongjing: Redefining Its Concept and Collection', Microform and Digitization Review 41 (2012), 83–6; Tjeerd de Graaf, 'Endangered Languages and Endangered Archives in the Russian Federation', in David Singleton, Joshua A. Fishman, Larissa Aronin, and Muiris Ó Laoire (eds.), Current Multilingualism: A New Linguistic Dispensation (Berlin, 2013), 279–96; John Edward Philips, 'The Early Issues of the First Newspaper in Hausa Gaskiya Ta Fi Kwabo, 1939–1945', History in Africa 41 (2014), 425–31.
- 65 Simon Schama, 'If I Ruled the World', *Prospect* (21 August 2013): www. prospectmagazine.co.uk/magazine/if-i-ruled-the-world-september-2013-simon-schama/#.U7SBrKjXqBw.

### CONCLUSION: THE PUBLIC FUTURE OF THE PAST

- I Sanford M. Jacoby, 'History and the Business School', *Labour History* 98 (2010), 212.
- 2 Peter Suber, *Open Access* (Cambridge, MA, 2012); Martin Paul Eve, *Open Access and the Humanities: Contexts, Controversies and the Future* (Cambridge, 2014).
- 3 Lynn Hunt, Writing History in the Global Era (New York, 2014), 120.
- 4 James C. Scott, The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia (New Haven, 2009).

- 5 Matti Peltonen, 'Clues, Margins, and Monads: The Micro–Macro Link in Historical Research', *History and Theory* 40 (2001), 347–59; Marshall Sahlins, 'Structural Work: How Microhistories Become Macrohistories and Vice Versa', *Anthropological Theory* 5 (2005), 5–30.
- 6 For an exemplary application of just this method, which pays homage to Braudel and the *longue durée*, see Saliha Belmessous, *Assimilation and Empire: Uniformity in French and British Colonies, 1541–1954* (Oxford, 2013); see also David Armitage, 'What's the Big Idea? Intellectual History and the *Longue Durée'*, *History of European Ideas* 38 (2012), 493–507, for the parallel conception of 'serial contextualism' in *longue-durée* intellectual history.
- 7 Paul Carter, *The Road to Botany Bay: An Essay in Spatial History* (London, 1987), xxiii. Carter takes the image from James Boswell's *Journal*.
- 8 John Markoff and Verónica Montecinos, 'The Ubiquitous Rise of Economists', *Journal of Public Policy* 13 (1993), 37–68.
- 9 http://republicofletters.stanford.edu/; Patricia Cohen, 'Humanities Scholars Embrace Digital Technology', *New York Times* (16 November 2010): www.nytimes.com/2010/11/17/arts/17digital.html; Cohen, 'Digitally Mapping the Republic of Letters', *New York Times Artsbeat Blog* (16 November 2010): http://artsbeat.blogs.nytimes.com/2010/11/16/digitally-mapping-the-republic-of-letters.
- 10 Jerome de Groot, 'Empathy and Enfranchisement: Popular Histories', *Rethinking History* 10 (2006), 391–413.
- 11 Andrew Davies and Julie-Marie Strange, 'Where Angels Fear to Tread: Academics, Public Engagement and Popular History', *Journal of Victorian Culture* 15 (2010), 268–79.
- 12 Pamela Cox, 'The Future Uses of History', *History Workshop Journal* 75 (2013), 17–18.
- 13 Craig Calhoun, 'Social Science for Public Knowledge', in Sven Eliaeson and Ragnvald Kalleberg (eds.), *Academics as Public Intellectuals* (Newcastle upon Tyne, 2008), 299–318.
- 14 Fernand Braudel, 'Préface' (1946), in *La Méditerranée et le Monde méditerranéen à l'époque de Philippe II* (Paris, 1949), xiv.
- 15 J. Franklin Jameson, 'The Future Uses of History', *American Historical Review* 65 (1959), 70, quoted in Cox, 'The Future Uses of History', 18.