

## NOTES

### Introduction

1. Simon Lewis and Mark Maslin Simon, *The Human Planet: How We Created the Anthropocene* (New Haven: Yale University Press, 2018); Julia Adeney Thomas, Mark Williams, and Jan Zalasiewicz, *The Anthropocene: A Multidisciplinary Approach* (London: Polity, 2020).
2. The idea of nature has a long and complex history. For some hints about this lineage, see Raymond Williams, "Ideas of Nature," in *Problems in Materialism and Culture: Selected Essays* (London: Verso, 1980), 67–85.
3. Will Steffen et al., "Planetary Boundaries: Guiding Human Development on a Changing Planet," *Science* 347, no. 6223 (February 13, 2015); for COVID-19, see Rory Gibb et al., "Zoonotic Host Diversity Increases in Human-dominated Ecosystems," *Nature* 584, no. 7821 (August 20, 2020): 398–402.
4. Marshall Sahlins, *Stone Age Economics* (1972; London: Routledge, 2017), 11.
5. Shaun A. Marcott, Jeremy D. Shakun, Peter U. Clark, Alan C. Mix, "A Reconstruction of Regional and Global Temperature for the Past 11,300 Years," *Science* 339 (March 8, 2013): 1198–1201; Franz Mauelshagen, "The Dirty Metaphysics of Fossil Freedom," in *The Anthropocenic Turn: The Interplay between Disciplinary and Interdisciplinary Responses to a New Age*, ed. Gabriele Dürbeck and Philip Hüpkes, 59–76 (New York: Routledge, 2020).

6. *Oxford English Dictionary*, 2nd ed. (Oxford: Oxford University Press, 2004), s.v. "Scarcity."

7. Strother Roberts, *Colonial Ecology, Atlantic Economy: Transforming Nature in Early New England* (Philadelphia: University of Pennsylvania Press, 2019), 120–125.

8. David Hume, "Of the Populousness of Ancient Nations," in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (1777; Indianapolis: Liberty Fund, 1985), 451.

9. Will Steffen, Paul Crutzen, and John McNeill, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007), 617, table 1.

10. Heinz Kohler, *Intermediate Microeconomics: Theory and Applications* (Glenview, IL: Scott Foresman, 1982).

11. Lionel Robbins, *An Essay on the Nature and Significance of Economic Science* (1932; New York: New York University Press, 1984), 15.

12. Paul Crutzen and Eugene Stoermer, "The Anthropocene," *IGBP Newsletter* 41 (2000): 17–18; Johan Rockström et al., "A Safe Operating Space for Humanity," *Nature* 461 (2009): 472–475; Steffen et al., "Planetary Boundaries."

13. Will Steffen et al., "Trajectories of the Earth System in the Anthropocene," *Proceedings of the National Academy of Sciences* 115, no. 33 (2018): 8252–8259. For the definition of sinks, see Brian J. Skinner and Barbara W. Murck, *The Blue Planet: An Introduction to Earth System Science*, 3rd ed. (Hoboken, NJ: John Wiley and Sons, 2011).

14. Will Steffen et al., "The Anthropocene: From Global Change to Planetary Stewardship," *Ambio* 40, no. 7 (2011): 739–761.

15. Tibor Scitovsky, *The Joyless Economy: An Inquiry into Human Satisfaction and Consumer Dissatisfaction* (Oxford: Oxford University Press, 1976); Richard Easterlin, "Does Economic Growth Improve the Human Lot? Some Empirical Evidence," in *Nations and Households in Economic Growth*, ed. Paul David and Melvin Reder, 89–125 (New York: Academic Press, 1974).

16. Fred Hirsch, *Social Limits to Growth* (Cambridge, MA: Harvard University Press, 1976).

17. Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999), 5.

18. Karen Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st Century Economist* (White River Junction, VT: Chelsea Green, 2017), 30.

19. Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review* (London: HM Treasury, 2021).

20. A keyword search across more than 15,000 PhD dissertations written at 152 US and Canadian universities between 2001 and 2018 reveals very little interest in climate change among young scholars. Only 0.5 percent of disser-

tations included climate change or global warming as keywords. Michael Roos and Franziska M. Hoffart, “Importance of Climate Change in Economics,” in *Climate Economics: A Call for More Pluralism and Responsibility*, 19–34 (Cham, Switzerland: Palgrave, 2021), 23, 29.

21. John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (London: Macmillan, 1936), 383.

22. Terry Eagleton, *Ideology: An Introduction* (London: Verso, 1996), 52.

23. In so doing, we follow in the tradition of previous scholars who have explored the history of the concept of scarcity, including Hugo Hegeland, *Från Knapphet till Överflöd: En studie över knapphetsbegreppet i nationalekonomi* (Stockholm: Nature och Kultur, 1967); Nicholas Xenos, *Scarcity and Modernity* (London: Routledge, 1989); Regina Gagnier, *The Insatiability of Human Wants* (Chicago: University of Chicago Press, 2000); Adel Daoud, *Scarcity, Abundance, and Sufficiency: Contributions to Social and Economic Theory* (Gothenburg: University of Gothenburg Press, 2011); Costas Panayotakis, *Remaking Scarcity: From Capitalist Inefficiency to Economic Democracy* (London: Pluto, 2011); Gustav Peebles, “For a Love of False Consciousness: Adam Smith on the Social Origins of Scarcity,” *Economic Sociology* 12, no. 3 (2011): 19–25; and Andrew Abbott, “The Problem of Excess,” *Sociological Theory* 32, no. 1 (2014): 1–26. Our book also builds on scholarship exploring the long-term dynamics between nature and economy, including Margaret Schabas, *The Natural Origins of Economics* (Chicago: University of Chicago Press, 2005); Donald Worster, *Shrinking the Earth: The Rise and Decline of Natural Abundance* (Oxford: Oxford University Press, 2016); Nathaniel Wolloch, *Nature in the History of Economic Thought: How Natural Resources Became an Economic Concept* (London: Routledge, 2017); Paul Warde, Libby Robin, and Sverker Sörlin, *The Environment: A History of the Idea* (Baltimore: Johns Hopkins University Press, 2018); and Pierre Charbonnier, *Affluence and Freedom: An Environmental History of Political Ideas* (London: Polity, 2021).

24. See, for example, Vandana Shiva, *Staying Alive: Women, Ecology and Survival in India* (London: Zed Books, 1988); Ramachandra Guha, *Environmentalism: A Global History* (New York: Longman, 2000); Md Saidul Islam, “Old Philosophy, New Movement: The Rise of the Islamic Ecological Paradigm in the Discourse of Environmentalism,” *Nature and Culture* 7, no. 1 (2012): 72–94; Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants* (Minneapolis: Milkweed, 2013); and Kimberly K. Smith, *African American Environmental Thought* (Lawrence: University Press of Kansas, 2021).

25. Dipesh Chakrabarty underscores the centrality of reverence mixed with fear to any genuine understanding of our planetary condition. See Dipesh Chakrabarty, *The Climate of History in a Planetary Age* (Chicago: University of Chicago Press, 2021), 198.

## 1. Types of Scarcity before 1600

1. John L. Brooke, *Climate Change and the Course of Global History: A Rough Journey* (Cambridge: Cambridge University Press, 2014), 383.
2. Thomas Hobbes, *Leviathan* (1651; Cambridge: Cambridge University Press, 1991), 89.
3. John Walter and Keith Wrightson, “Dearth and the Social Order in Early Modern England,” *Past and Present* 71, no. 1 (1976): 22–42, 22.
4. Quoted in Carlo Cipolla, *Before the Industrial Revolution: European Society and Economy, 1000–1700* (New York: Norton, 1976), 159.
5. Edmund Dudley, *The Tree of Commonwealth*, ed. D. M. Brodie (1510; Cambridge: Cambridge University Press, 1948), 90–91.
6. Neal Wood, *Foundations of Political Economy: Some Early Tudor Views on State and Society* (Berkeley: University of California Press, 1994), 74.
7. Dudley, *The Tree of Commonwealth*, 44.
8. Laurentius Petri, *Oeconomia Christiana*, selections reprinted in Anders Björnsson and Lars Magnusson, eds., *Jordpäron: Svensk Ekonomihistorisk Läsobok* (Stockholm: Atlantis, 2011), 95. Authors’ translation of quoted passage.
9. Joel Kaye, *Economy and Nature in the Fourteenth Century: Money, Market Exchange, and the Emergence of Scientific Thought* (Cambridge: Cambridge University Press, 1998), 61.
10. Wood, *Foundations of Political Economy*, 80.
11. Per Brahe, *Oeconomia eller Hushållsbok för ungt adelsfolk* (Economy, or household book for young nobles), reprinted in Björnsson and Magnusson, *Jordpäron*, 95–96. Authors’ translation of quoted passage.
12. Eamon Duffy, *The Voices of Morebath: Reformation and Rebellion in an English Village* (New Haven: Yale University Press, 2003).
13. Duffy, *Voices of Morebath*, 11.
14. A. L. Morton quoted in Christopher Kendrick, *Utopia, Carnival and Commonwealth in Renaissance England* (Toronto: University of Toronto Press, 2004), 77.
15. Craig Muldrew, *Food, Energy and the Creation of Industriousness: Work and Material Culture in Agrarian England, 1550–1780* (Cambridge: Cambridge University Press, 2011), 46.
16. Duffy, *Voices of Morebath*, 16–32.
17. Carlo Ginzburg, *The Night Battles: Witchcraft and Agrarian Cults in the Sixteenth and Seventeenth Centuries* (Baltimore: Johns Hopkins University Press, 2013); Carlo Ginzburg, *Ecstasies: Deciphering the Witches’ Sabbath* (Chicago: University of Chicago Press, 1991).
18. Jayne Elisabeth Archer, Richard Marggraf Turley, and Howard Thomas, “The Autumn King: Remembering the Land in ‘King Lear,’” *Shakespeare Quarterly* 63, no. 4 (Winter 2012): 518–543.

19. Francis Bacon, “A Brief Discourse Touching the Happy Union of the Kingdoms of England and Scotland: Dedicated in Private to His Majesty,” in *The Letters and the Life of Francis Bacon*, ed. James Spedding, 7 vols. (London: Longmans, Green, Reader, and Dyer, 1868), 3: 90.

20. Aristotle, *Nichomachean Ethics*, trans. Martin Ostwald (New York: Macmillan, 1962).

21. Aristotle, *The Politics*, Stephen Everson, ed. (Cambridge: Cambridge University Press, 1988), 13.

22. Aristotle, *Politics*, 14.

23. Brad Gregory, *The Unintended Reformation: How a Religious Revolution Secularized Society* (Cambridge, MA: Harvard University Press, 2012), 262–263.

24. Luther, *On Commerce and Usury (1524)*, ed. Philipp Robinson Rössner (London: Anthem, 2015), 175.

25. Luther, *On Commerce and Usury*, 177.

26. Luther, *On Commerce and Usury*, 178.

27. Erasmus shared the same sentiments. He chastised the merchants for hunting “for profits from every possible source, by trickery, by lies, by fraud, by cheating, buying up here what they sell for more than double there, and robbing the wretched poor with their monopolies.” Quoted in Margot Todd, *Christian Humanism and the Puritan Social Order* (Cambridge: Cambridge University Press, 1987), 128.

28. Luther, *On Commerce and Usury*, 184.

29. Luther, *On Commerce and Usury*, 184–191.

30. Luther, *On Commerce and Usury*, 190.

31. Luther, *On Commerce and Usury*, 173.

32. Jacques Le Goff, in *Your Money or Your Life: Economy and Religion in the Middle Ages* (Cambridge: Zone Books, 1990), offers an insightful discussion of how the church altered its message to enable merchants to conduct their affairs.

33. Ethan Shagan, *The Rule of Moderation: Violence, Religion and the Politics of Restraint in Early Modern England* (Cambridge: Cambridge University Press, 2011), 35.

34. Shagan, *Rule of Moderation*, 32.

35. Matthew Ingleby and Samuel Randalls, *Just Enough: The History, Culture and Politics of Sufficiency* (London: Palgrave, 2019).

36. Martha Howell, *Commerce before Capitalism in Europe, 1300–1600* (Cambridge: Cambridge University Press, 2010), 208.

37. Acts of the Privy Council, Enforcing Statutes of Apparel, issued at Greenwich, 15 June 1574, 16 Elizabeth I.

38. Ulinka Rublack and Giorgio Riello “Introduction,” in *The Right to Dress: Sumptuary Laws in a Global Perspective, c. 1200–1800*, ed. Riello and Rublack, 1–34 (Cambridge: Cambridge University Press, 2019), 16–19.

39. Keith Wrightson, *Earthly Necessities: Economic Lives in Early Modern Britain* (New Haven: Yale University Press, 2000); and Jo Guldi, *The Long Land War: The Global Struggle for Occupancy Rights* (New Haven: Yale University Press, 2022).

40. Thomas More, *Utopia*, ed. George Logan and Robert Adams (1516; Cambridge: Cambridge University Press, 1989), 18–19.

41. More, *Utopia*, 18–19.

42. More, *Utopia*, 19.

43. More, *Utopia*, 39.

44. More, *Utopia*, 40.

45. More, *Utopia*, 51.

46. More, *Utopia*, 77.

47. Seneca, *Letters from a Stoic*, trans. Robin Campbell (London: Penguin, 1969), 34, 65, 168.

48. More, *Utopia*, 76.

49. More, *Utopia*, 109.

50. More, *Utopia*, 65.

51. More, *Utopia*, 38.

52. More, *Utopia*, 52; Aristotle, *Ethics*, 125.

53. More, *Utopia*, 109.

54. Seneca, *Dialogues and Letters*, ed. and trans. C. D. N. Costa (London: Penguin, 1997), 42, 104.

## 2. Cornucopian Scarcity

1. Geoffrey Parker, “Crisis and Catastrophe: The Global Crisis of the Seventeenth Century Reconsidered,” *American Historical Review* 113, no. 4 (2008): 1053–1079.

2. Giovanni Botero, *On the Causes of the Greatness and Magnificence of Cities*, trans. Geoffrey Symcox (Toronto: University of Toronto Press, 2000), 42. Botero used the term *accrescere*, derived from *crescita*, which means growth.

3. Botero, *Causes of the Greatness*, 44.

4. Deborah E. Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven: Yale University Press, 2007), 2.

5. Francis Bacon, *The New Organon*, ed. Lisa Jardine and Michael Silverthorne (Cambridge, UK: Cambridge University Press, 2000), 7.

6. Bacon, *New Organon*, 13.

7. Bacon, *New Organon*, 223.

8. Bacon, *New Organon*, 102.

9. Pierre Hadot, *The Veil of Isis: An Essay on the History of the Idea of Nature*, trans. Michael Chase (Cambridge, MA: Harvard University Press, 2008); Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time* (New York: Columbia University Press, 2004).

10. Bacon, *New Organon*, 99.
11. Bacon, *New Organon*, 65–66.
12. Francis Bacon, *New Atlantis*, in Susan Bruce, ed., *Three Early Modern Utopias: Utopia, New Atlantis, and The Isle of Pines* (Oxford: Oxford University Press, 1999), 177–178.
13. Max Horkheimer and Theodor Adorno, *The Dialectic of Enlightenment* (New York: Continuum, 1994).
14. Bacon, *New Atlantis*, 183.
15. Bacon, *New Atlantis*, 185.
16. Paul Slack, *The Invention of Improvement: Information and Material Progress in Seventeenth-Century England* (Oxford: Oxford University Press, 2015), 92.
17. John Milton, *Of Education* (London, 1644), 363.
18. Hartlib, *Samuel Hartlib and His Legacy of Husbandry* (London, 1655), 247–250; and Cressy Dymock, *A Discovery for New Divisions, or Setting out of Lands, as to the best Forme* (London, 1653), 12.
19. William Newman, *Newton the Alchemist: Science, Enigma, and the Quest for Nature’s “Secret Fire”* (Princeton: Princeton University Press, 2018).
20. Samuel Hartlib, *An Essay for Advancement of Husbandry-Learning* (London, 1651), ii.
21. Samuel Hartlib, *Propositions for Advancement of Husbandry-Learning* (London, 1651), 3.
22. Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York: HarperCollins, 1980).
23. Francis Bacon, “Thoughts and Conclusions on the Interpretation of Nature or A Science of Productive Works,” in Benjamin Farrington, *The Philosophy of Francis Bacon: An Essay on Its Development from 1603 to 1609* (Liverpool: Liverpool University Press, 1964), 99.
24. Merchant, *Death of Nature*, 169–172.
25. Gabriel Plattes, *A Description of the Famous Kingdome of Macaria* (London, 1641), 2.
26. Plattes, *Famous Kingdome of Macaria*, 4.
27. Plattes, *Famous Kingdome of Macaria*, 5.
28. Plattes, *Famous Kingdome of Macaria*, 11.
29. Gabriel Plattes, *A Discovery of Infinite Treasure, Hidden since the World’s Beginning* (London, 1639), iv.
30. Gabriel Plattes, *The Profitable Intelligencer, Communicating His Knowledge for the Generall Good of the Common-Wealth and All Posterity* (London, 1644), 3.
31. Thomas Hobbes, *Leviathan*, ed. Richard Tuck (1651; Cambridge: Cambridge University Press, 1991), 89.
32. Ellen Meiskins Wood, *The Origin of Capitalism: A Longer View* (New York: Verso, 1999), 106.



33. Henry Robinson, *Certain Proposals in order to the Peoples Freedome and Accomodation in some Particulars with the Advancement of Trade and Navigation of this Commonwealth in Generall* (London: M. Simmons, 1652), 18. For further discussion, see Carl Wennerlind, *Casualties of Credit: The English Financial Revolution, 1620–1720* (Cambridge, MA: Harvard University Press, 2011).

34. Christopher Hill, *The World Turned Upside Down: Radical Ideas during the English Revolution* (London: Penguin, 1984).

35. Gerrard Winstanley, *A Declaration from the Poor Oppressed People of England* (1649), 1.

36. Winstanley, *Poor Oppressed People of England*, 1.

37. Winstanley, *Poor Oppressed People of England*, 1.

38. Winstanley, *Poor Oppressed People of England*, 2.

39. Winstanley, *Poor Oppressed People of England*, 2.

40. Winstanley, *Poor Oppressed People of England*, 4.

41. John Locke, *Two Treatises of Government* (Cambridge: Cambridge University Press, 1960), 290.

42. Locke, *Two Treatises of Government*, 291.

43. Locke, *Two Treatises of Government*, 294.

44. Locke, *Two Treatises of Government*, 294.

45. Locke, *Two Treatises of Government*, 297.

46. John Locke, “An Essay on the Poor Laws [1697],” in *Political Essays*, ed. Mark Goldie (Cambridge: Cambridge University Press, 1997), 185–187.

47. Locke had a documented interest in Paracelsian alchemy and clearly embraced Baconianism, yet he did not place as much importance on scientific advancement as members of the Hartlib Circle. For him, labor was the primary foundation for economic improvement. For a discussion of Locke on alchemy, see Guy Meynell, “Locke and Alchemy: His Notes on Basilius Valentinus and Andreas Cellarius,” *Locke Studies* 2 (2002): 177–197.

48. John Locke, *Essay on Human Understanding*, ed. Peter Nidditch (1689; Oxford: Clarendon Press, 1979), 262–263.

49. Andrea Finkelstein, “Nicholas Barbon and the Quality of Infinity,” *History of Political Economy*, 32, no. 1 (2000): 83–102, 97.

50. Barbon, *A Discourse of Trade* (London, 1690), 5.

51. Barbon, *A Discourse of Trade*, 18–19. See Steve Pincus and Alice Wolfram, “A Proactive State? The Land Bank, Investment and Party Politics in the 1690s,” in *Regulating the British Economy, 1660–1850*, ed. Perry Gauci (Farnham: Ashgate, 2011), 42.

52. Pierre Force, *Self-Interest before Adam Smith: A Genealogy of Economic Science* (Cambridge: Cambridge University Press, 2007).

53. Slack, *The Invention of Improvement*, 154.

54. Jean-Louis Flandrin, “Introduction: The Early Modern Period,” in *Food: A Culinary History*, ed. Jean-Louis Flandrin, Massimo Montanari, and Albert



Sonnenfeld, trans. Clarissa Botsford (New York: Columbia University Press, 1999), 361.

55. Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge: Cambridge University Press, 2008).

56. Joyce Appleby, “Ideology and Theory: The Tension between Political and Economic Liberalism in Seventeenth-Century England,” *American Historical Review* 81, no. 3 (1976): 499–515, 505.

57. Barbon, *A Discourse of Trade*, 14.

58. Barbon, *A Discourse of Trade*, 15.

59. Barbon, *A Discourse of Trade*, 16.

60. The classic statement on this subject is A. O. Hirschman, *The Passions and the Interests: Political Arguments for Capitalism before Its Triumph* (Princeton: Princeton University Press, 1977). For a more recent discussion, see Jonathan Sheehan and Dror Wahrman, *Invisible Hands: Self-Organization and the Eighteenth Century* (Chicago: University of Chicago Press, 2015).

61. Barbon, *A Discourse of Trade*, 65.

62. Roger North, *The Lives of the Norths* (London, 1890), 3: 56.

63. Barbon, *A Discourse of Trade*, 6.

64. Barbon, *A Discourse of Trade*, 5.

65. Barbon, *A Discourse Shewing the Great Advantages that New-Buildings, and the Enlarging of Towns and Cities Do Bring to a Nation* (London, 1678), 1.

66. Barbon, *Great Advantages*, 2.

67. Barbon, *A Discourse of Trade*, 62.

68. Barbon, *A Discourse of Trade*, 5.

69. Barbon, *A Discourse of Trade*, 35.

70. For other voices similarly defending conspicuous consumption, see Paul Slack, “The Politics of Consumption and England’s Happiness in the Later Seventeenth Century,” *English Historical Review* 122, no. 497 (2007): 609–631.

71. Roy Porter, “Consumption: Disease of the Consumer Society,” in *Consumption and the World of Goods*, ed. John Brewer and Roy Porter (London: Routledge, 1993), 66.

72. Bernard Mandeville, *The Female Tatler*, November 30, 1709.

73. Bernard Mandeville, *The Fable of the Bees or Private Vices, Publick Benefits*, ed. F. B. Kaye, 6th ed. (Liberty Fund: Indianapolis, 1988), 13, 24.

74. Mandeville, *The Fable of the Bees*, 25.

75. Mandeville, *The Fable of the Bees*, 36.

76. Mandeville, *The Fable of the Bees*, 105.

77. Mandeville, *The Fable of the Bees*, 119.

78. Mandeville, *The Fable of the Bees*, 128 (emphasis added).

79. For a rich account of the competing ideas of those who believed in the prospects of infinite growth and those who insisted that finite landed wealth

must constitute the foundation of society, see Steve Pincus, *1688: The First Modern Revolution* (New Haven: Yale University Press, 2009).

80. Istvan Hont, “The Early Enlightenment Debate on Commerce and Luxury,” in *The Cambridge History of Eighteenth-Century Political Thought*, ed. Mark Goldie and Robert Wokler (Cambridge: Cambridge University Press, 2008).

81. François de Salignac de La Mothe-Fénelon, *Telemachus, Son of Ulysses*, ed. and trans. Patrick Riley (Cambridge: Cambridge University Press, 1994), 297.

82. Fénelon, *Telemachus*, 296–298.

83. Koji Yamamoto, *Taming Capitalism before Its Triumph: Public Service, Distrust, and “Projecting” in Early Modern England* (Cambridge: Cambridge University Press, 2018).

84. Laura Brown, *Fables of Modernity: Literature and Culture in the English Eighteenth Century* (Ithaca, NY: Cornell University Press, 2001).

85. Carol Gibson, “Bernard Mandeville: The Importance of Women in the Development of Civil Societies” (MA thesis, University of British Columbia, 1989).

### 3. Enlightened Scarcity

1. Quoted in W. A. Speck, “Bernard Mandeville and the Middlesex Grand Jury,” *American Society for Eighteenth-Century Studies* 11, no. 3 (1978), 363.

2. See Julian Hoppit, “The Myth of the South Sea Bubble,” *Transactions of the Royal Historical Society* 12 (2002): 141–165.

3. Arnoud Orain, *La Politique du Merveilleux: Une Autre Histoire du Système de Law (1695–1795)* (Paris: Fayard, 2018).

4. Daniel Defoe, *The case of Mr. Law, truly stated. In answer to a pamphlet, entitul’d, A Letter to Mr. Law* (London, 1721).

5. Daniel Defoe, *An Essay upon Publick Credit*. (London, 1710), 51.

6. Jonathan Swift, “The South Sea Project,” in *Poetical Works of Swift*, ed. Herbert Davis (London: Oxford University Press, 1967), 192–199.

7. Jonathan Swift, *Gulliver’s Travels*, ed. Robert DeMaria Jr. (London: Benjamin Motte, Jr., 1726; London: Penguin, 2001), 166.

8. Swift, *Gulliver’s Travels*, 168.

9. Swift, *Gulliver’s Travels*, 172.

10. Caroline Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (New York: HarperCollins, 1980).

11. Peter Reill, *Vitalizing Nature in the Enlightenment* (Chicago: University of Chicago Press, 2005), 7.

12. Quoted passage is authors’ translation from a Swedish rendering of Linnaeus’s 1752 dissertation (in Latin) on the usefulness of the natural sciences, “Cui Bono?” Carl Linnaeus, *En fråga, som alltid föreställes de*

*naturkunniga, då det heter: hwartil duger det? (Cui bono?)* (Stockholm: L. Salvius, 1753), 3.

13. See, for example, Peter M. Jones, *Agricultural Enlightenment: Knowledge, Technology and Nature 1750–1840* (Oxford: Oxford University Press, 2016); Paola Bertucci, *Artisanal Enlightenment: Science and the Mechanical Arts in Old Regime France* (New Haven: Yale University Press, 2017).

14. Swift, *Gulliver's Travels*, 239.

15. Swift, *Gulliver's Travels*, 240.

16. Swift, *Gulliver's Travels*, 239.

17. Swift, *Gulliver's Travels*, 240.

18. Swift, *Gulliver's Travels*, 245.

19. Swift, *Gulliver's Travels*, 249.

20. Swift, *Gulliver's Travels*, 32.

21. Swift, *Gulliver's Travels*, 424.

22. Swift, *Gulliver's Travels*, 102.

23. Swift, *Gulliver's Travels*, 103.

24. Swift, *Gulliver's Travels*, 108.

25. Swift, *Gulliver's Travels*, 107.

26. Swift, *Gulliver's Travels*, 119.

27. Shaftesbury, *Characteristics of Men, Manners, Opinions, Times*, ed. Lawrence Klein (Cambridge: Cambridge University Press, 1999).

28. Francis Hutcheson, *An Inquiry into the Original of Our Ideas of Beauty and Virtue*, ed. Wolfgang Leidhold (1726; Indianapolis: Liberty Fund, 2004).

29. Joseph Butler, *Five Sermons*, ed. Stephen Darwell (Indianapolis: Hackett, 1983), 30.

30. Nicholas Xenos correctly points out that “Hume, as much as anyone, can lay claim to be the inventor of [modern] scarcity.” *Scarcity and Modernity* (New York: Routledge, 1989), 21.

31. David Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge and P. H. Nidditch, 2nd ed. (1739; Oxford: Oxford University Press, 1978), 494.

32. David Hume, *Enquiries Concerning Human Understanding and Concerning the Principles of Morals*, ed. L. A. Selby-Bigge and P. H. Nidditch, 3rd ed. (1777; Oxford: Oxford University Press, 1975), 188.

33. Hume, *Enquiries*, 183.

34. Hume, *Enquiries*, 185.

35. Hume, *Enquiries*, 188.

36. David Hume, “Of Interest,” in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (Indianapolis: Liberty Fund, 1985), 300.

37. Maxine Berg, “In Pursuit of Luxury: Global History and British Consumer Goods in the Eighteenth Century,” *Past & Present* 182, no. 1 (2004): 85–142.

38. Neil McKendrick, John Brewer, and J. H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England*

(London: HarperCollins, 1982); Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge: Cambridge University Press, 2008); and Roy Porter, *The Creation of the Modern World: The Untold Story of the British Enlightenment* (London: Norton, 2000).

39. David Hume, “The Sceptic,” in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (Indianapolis: Liberty Fund, 1985), 170–171.

40. David Hume, “Of Refinement in the Arts,” in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (Indianapolis: Liberty Fund, 1985), 270.

41. Hume, “Of Refinement,” 271.

42. Hume, “Of Refinement,” 270.

43. Hume, “Of Refinement,” 271.

44. David Hume, “Of the Middle Station of Life,” in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (Indianapolis: Liberty Fund, 1985), 546.

45. David Hume, “Of the Delicacy of Taste and Passion,” in *Essays, Moral, Political, and Literary*, ed. Eugene Miller (Indianapolis: Liberty Fund, 1985), 6–7.

46. Hume, “The Sceptic,” 170.

47. Hume, “Of the Middle Station,” 546–547.

48. Hume, “Of Refinement,” 271. This argument is further elaborated in Margaret Schabas and Carl Wennerlind, *A Philosopher’s Economist: Hume and the Rise of Capitalism* (Chicago: University of Chicago Press, 2020).

49. Hume, *Enquiries*, 283–284.

50. Adam Smith, *The Correspondence of Adam Smith*, ed. Ernest Campbell Mossner and Ian Simpson Ross (Oxford: Clarendon Press, 1987) 2; John Rae, *Life of Adam Smith* (London: Macmillan, 1895), 329.

51. S. Engler, F. Mauelshagen, J. Werner, and J. Luterbacher, “The Irish Famine of 1740–1741: Famine Vulnerability and ‘Climate Migration,’” *Climate of the Past* 9 (2013): 1161–1179; Philipp Rössner, “The 1738–41 Harvest Crisis in Scotland,” *Scottish Historical Review* 90, no. 1 (2011), 27–63; Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 2 vols., ed. R. H. Campbell, A. S. Skinner, and W. B. Todd (Oxford: Oxford University Press, 1976), 1: 104.

52. Smith, *Wealth*, 1: 178.

53. Smith, *Wealth*, 1: 258.

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56. Jessica Riskin, *Science in the Age of Sensibility: The Sentimental Empiricists of the French Enlightenment* (Chicago: University of Chicago Press, 2013).

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58. Mirabeau, *Philosophie Rurale*, quoted in Michael Kwass, “‘Le Superflu, Chose Très Nécessaire’: Physiocracy and Its Discontents in the Eighteenth-

Century Luxury Debate,” in *The Economic Turn: Recasting Political Economy in Enlightenment Europe*, ed. Steven Kapland and Sophus Reinert (London: Anthem Press, 2019), 121.

59. Smith, *Wealth*, 1: 20–21, 405, 408–409; Fredrik Albritton Jonsson, *Enlightenment’s Fable: The Scottish Highlands and the Origins of Environmentalism* (New Haven: Yale University Press, 2013), 129–130.

60. Adam Smith, *The Theory of Moral Sentiments*, ed. D. D. Raphael and A. L. Macfie (Oxford: Oxford University Press, 1976), 181–184.

61. Smith, *Theory*, 181–184.

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63. Smith, *Theory*, 181–184; Lisa Hill, “‘The Poor Man’s Son’ and the Corruption of Our Moral Sentiments: Commerce, Virtue and Happiness in Adam Smith,” *Journal of Scottish Philosophy* 15, no. 1 (2017): 9–25.

64. Smith, *Theory*, 181–184.

65. Smith, *Theory*, 181–184.

66. Smith, *Theory*, 181–184.

67. Smith, *Wealth*, 1: 341.

68. Smith, *Wealth*, 1: 342.

69. Smith, *Wealth*, 1: 342.

70. Smith, *Wealth*, 1: 346.

71. Smith, *Wealth*, 1: 345.

72. Smith, *Wealth*, 1: 526, 539.

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74. Smith, *Wealth*, 1: 625.

75. Smith, *Wealth*, 1: 111.

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77. Godwin, *Enquiry Concerning Political Justice*, 416.

78. Godwin, *Enquiry Concerning Political Justice*, 432.

79. Godwin, *Enquiry Concerning Political Justice*, 437.

80. Godwin, *Enquiry Concerning Political Justice*, 437.

81. Godwin, *Enquiry Concerning Political Justice*, 440.

82. Godwin, *Enquiry Concerning Political Justice*, 427.

83. Godwin, *Enquiry Concerning Political Justice*, 432.

84. Godwin, *Enquiry Concerning Political Justice*, 433.

85. Godwin, *Enquiry Concerning Political Justice*, 418.

#### 4. Romantic Scarcity

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2. Dorothy Wordsworth, *Grasmere Journals*, 112. Lucy Newlyn, *William and Dorothy Wordsworth: All in Each Other* (Oxford: Oxford University Press,

2013), 237. For more on dwelling in nature, see Jonathan Bate, *The Song of the Earth* (London: Picador, 2000).

3. William Wordsworth, *The Major Works*, ed. Stephen Gill (Oxford: Oxford University Press, 2008), 177.

4. William Wordsworth, “Michael,” in *Wordsworth’s Poetry and Prose*, ed. Nicholas Halmi (New York: W. W. Norton, 2014), 147.

5. Dorothy Wordsworth, *The Grasmere and Alfoxden Journals* (Oxford: Oxford University Press, 2012), 112; Wordsworth, “Michael”; Newlyn, *William and Dorothy Wordsworth*, 138.

6. Jean-Jacques Rousseau, “Discourse on the Origin and the Foundations of Inequality among Men,” in *The Discourses and Other Early Political Writings*, ed. Victor Gourevitch (Cambridge: Cambridge University Press, 1997), 167.

7. Rousseau, “Discourse on Inequality,” 142–143.

8. Rousseau, “Discourse on Inequality,” 162.

9. Rousseau, “Discourse on Inequality,” 164.

10. Rousseau, “Discourse on Inequality,” 164.

11. Rousseau, “Discourse on Inequality,” 165.

12. Rousseau, “Discourse on Inequality,” 166.

13. Rousseau, “Discourse on Inequality,” 168.

14. Rousseau, “Discourse on Inequality,” 177.

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16. Jean-Jacques Rousseau, *Émile, or On Education*, ed. and trans. Allan Bloom (1762; New York: Basic Books, 1979), 97.

17. Rousseau, *Émile*, 213.

18. Rousseau, “Discourse on Inequality,” 153.

19. Rousseau, *Émile*, 214.

20. Rousseau, “Discourse on Inequality,” 171.

21. Pierre Force, *Self-Interest before Adam Smith: A Genealogy of Economic Science* (Cambridge: Cambridge University Press, 2008).

22. Rousseau, “Discourse on Inequality,” 170.

23. Rousseau, *Émile*, 214.

24. Rousseau, “Discourse on Inequality,” 171.

25. Rousseau, “Discourse on Inequality,” 177.

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27. Rousseau, “Last Reply,” 73.

28. Rousseau, “Discourse on the Sciences and Arts,” in *The Discourses and Other Early Political Writings*, ed. Victor Gourevitch (Cambridge: Cambridge University Press, 1997), 21.

29. Rousseau, “Last Reply,” 73.
30. Rousseau, *Politics and the Arts: Letter to M. D’Alembert on the Theatre*, trans. Alan Bloom (Ithaca, NY: Cornell University Press, 1960), 60.
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32. Jean-Jacques Rousseau, “Considerations on the Government of Poland and on Its Planned Reformation,” in Rousseau, *The Plan for Perpetual Peace, On the Government of Poland, and Other Writings on History and Politics*, ed. Christopher Kelly, trans. Christopher Kelly and Judith Bush (Hanover, NH: Dartmouth College Press, 2011), 2:183.
33. Rousseau, “Considerations,” 126.
34. Rousseau, *Émile*, 47.
35. Rousseau, *Émile*, 188, 195.
36. Rousseau, *Émile*, 195.
37. On this fatal contradiction, see Eoin Daly, “Providence and Contingency in Corsica: Rousseau on Freedom without Politics,” *European Journal of Political Theory* 20, no. 4 (2021): 739–760, 755.
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47. Annabel Patterson, *Pastoral and Ideology: Virgil to Valéry* (Berkeley: University of California Press, 1988), 274, 279–280.
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49. Wordsworth, “Michael,” 152.
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65. John Stuart Mill, *The Principles of Political Economy*, 2 vols. (London: John W. Parker, 1848), 2: 306.

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## 5. Malthusian Scarcity

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19. Burke, *Thoughts*, 35.

20. Burke, *Thoughts*, 44.

21. Burke, *Thoughts*, 44.

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23. Burke, *Thoughts*, 31.

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30. Thomas R. Malthus, *An Essay on the Principle of Population . . . A New Edition, very much Enlarged*, 2nd ed. (London: J. Johnson, 1803), 75.

31. Malthus, *Essay* (1803), 32, 548.

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33. Malthus, *Essay* (1798), 139.

34. Malthus, *Essay* (1798), 48.

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55. Martineau, “Weal and Woe,” 64–65, 68.
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58. For the legacy of this strand of Malthusianism, see Alison Bashford, *Global Population: History, Geopolitics, and Life on Earth* (New York: Columbia University Press, 2014), chap. 8, 211–238.
59. On the hidden hand, see Boyd Hilton, “The Role of Providence in Evangelical Social Thought,” in *History, Society and the Churches: Essays in Honour of Owen Chadwick*, ed. Derek Beales and Geoffrey Best, 215–234 (Cambridge: Cambridge University Press, 1985), 233.
60. Charles Edward Trevelyan to Thomas Spring-Rice, Lord Monteagle, October 9, 1846, Monteagle Papers, National Library of Ireland, Dublin, Ms. 13, 397/1. The letter is reproduced with some editing in Noel Kissane, *The Irish Famine: A Documentary History* (Dublin: National Library of Dublin, 1995), 51.
61. C. E. Trevelyan, *The Irish Crisis* (London: Longman, Brown, 1848), 4–5, 196.
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63. Charles Darwin, *The Formation of Vegetable Mould, Through the Action of Worms, with Observations on Their Habits* (London: John Murray, 1881), 313.
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65. Darwin, *Origin of Species*, 360.
66. Peter Kropotkin, *Mutual Aid: A Factor of Evolution* (London: Freedom Press, 2009).

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68. Ruth Kinna, "Kropotkin and Huxley," *Politics* 12, no. 2 (1992): 41–47.

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71. Will Steffen, Paul J. Crutzen, and John R. McNeill, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?" *Ambio* 36, no. 8 (2007): 614–621, Table 1.

## 6. Socialist Scarcity

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3. William Cavert, *The Smoke of London: Energy and Environment in the Early Modern City* (Cambridge: Cambridge University Press, 2016).

4. William Ashworth, *The Industrial Revolution: The State, Knowledge and Global Trade* (London: Bloomsbury Academic, 2017).

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6. Friedrich Engels, *The Condition of the Working Class in England* (Oxford: Oxford University Press, 2009), 79, 84.

7. Engels, *Condition of the Working Class*, 109. For a summary of the literature on urban mortality, and a revisionist critique, see Romola Davenport, "Urbanization and Mortality, c. 1800–1850," *Economic History Review* 73, no. 2 (2020): 455–485.

8. Robert Owen, *A Supplementary Appendix to the First Volume of the Life of Robert Owen*, vol. 1A (London: Effingham Wilson, 1858), 215.

9. Owen, *A Supplementary Appendix*, 216.

10. Robert Owen, *A New View of Society: Or, Essays on the Formation of the Human Character*, 2nd ed. (London: Longman, 1816), 175.

11. Owen, *New View of Society*, 175.

12. Owen, *Supplementary Appendix*, 215.

13. Owen, *Supplementary Appendix*, 211.

14. Owen, *Supplementary Appendix*, 215.

15. Owen, *Supplementary Appendix*, 215.

16. Quoted in Jonathan Beecher, *Charles Fourier: The Visionary and His World* (Berkeley: University of California Press, 1986), 369.

17. Beecher, *Charles Fourier*, 87, 26

18. Owen praised Fourier's critique: "I must thank you personally, sir, for the pleasure I derived from the reading of your work. Your tableaux of the vices of civilization are charming in their truth and in their strength." Quoted in Beecher, *Charles Fourier*, 368.

19. Keith Taylor, *The Political Ideas of the Utopian Socialists* (London: Frank Cass, 1982), 108–110.

20. In exploring the links between the material world, the realm of the passions, and the celestial sphere, Fourier embraced lessons from mysticism, perhaps from Emmanuel Swedenborg or the earlier alchemical thinkers. Beecher, *Charles Fourier*, 341–342.

21. Charles Fourier, *The Theory of the Four Movements*, ed. Gareth Stedman Jones and Ian Patterson (Cambridge: Cambridge University Press, 1996), 251.

22. With people spending only a fraction of their day in manufacturing, Fourier's vision of the future was a world of peaceful, bucolic, agricultural bliss.

23. Charles Fourier, *The Hierarchies of Cuckoldry and Bankruptcy*, trans. Geoffrey Longnecker (Cambridge, MA: Wakefield Press, 2011).

24. Quoted in Beecher, *Charles Fourier*, 21.

25. Fourier, *Theory of the Four Movements*, 50.

26. Beecher, *Charles Fourier*, 223.

27. Karl Marx, "Theses on Feuerbach" (1845), in *Karl Marx: Selected Writings*, ed. David McLellan (Oxford: Oxford University Press, 1977), 158.

28. Karl Marx and Friedrich Engels, *The Communist Manifesto*, trans. Samuel Moore (Harmondsworth: Penguin, 1967), 97.

29. Karl Marx, *The Economic and Philosophical Manuscripts of 1844*, ed. Dirk Struik (New York: International Publishers, 1964), 116.

30. Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus (London: Penguin, 1973), 713–714.

31. Marx uses the term *alienation* a handful of times in *Capital*. For example, in a passage that is clearly drawn from his *Economic and Philosophic Manuscripts of 1844*, he writes that, in capitalism, "all means for the development of production undergo a dialectical inversion so that they become means of domination and exploitation of the producers; they distort the worker into a

fragment of a man, they degrade him to the level of an appendage of a machine, they destroy the actual content of his labour by turning it into a torment; they alienate from him the intellectual potentialities of the labour process in the same proportion as science is incorporated in it as an independent power.” Karl Marx, *Capital*, vol. 3 (Harmondsworth: Penguin, 1991), 799.

32. Karl Marx, *A Contribution to the Critique of Political Economy*, ed. Maurice Dobb, trans. S. W. Ryazanskaya (Moscow: Progress Publishers, 1970), 30. See also Harry Cleaver, *Reading Capital Politically* (Austin: University of Texas Press, 1979), 109.

33. Marx, *Capital*, 230.

34. Marx, *Capital*, 253.

35. Marx, *Capital*, 255.

36. The capitalist, in his “vampire-like” quest, “only lives by sucking living labor, and lives the more, the more labor it sucks.” Marx, *Capital*, 254.

37. Karl Marx to Pavel Annenkov, December 28, 1846, *Letters of Karl Marx*, ed. Saul Padover (Englewood Cliffs, NJ: Prentice-Hall, 1979), 48. Marx incorporated this line some twenty years later in *Capital*, noting that “It would be possible to write a whole history of the inventions made since 1830 for the sole purpose of providing capital with weapons against working-class revolt.” Marx, *Capital*, 563.

38. Marx, *Capital*, 909.

39. Marx, *Capital*, 617.

40. Marx, *Capital*, 693.

41. Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy (Rough Draft)*, trans. Martin Nicolaus (London: Penguin, 1973), 693.

42. Marx and Engels, *Communist Manifesto*, 87.

43. Karl Marx to Arnold Ruge, Kreuznach, September 1843, in “Letters from the *Deutsch-Französische Jahrbücher*,” in *Collected Works*, vol. 3: *Marx and Engels: 1843–1844* (London: Lawrence and Wishart, 1975), 142.

44. Karl Marx and Friedrich Engels, *The German Ideology* (1846), in *Karl Marx Selected Writings*, 169.

45. Marx and Engels, *Communist Manifesto*, 99.

46. Marx and Engels, *Communist Manifesto*, 83.

47. Marx, *Economic and Philosophic Manuscripts of 1844*, 135.

48. Marx, *Capital*, 506–507.

49. Marx, *Capital*, 503.

50. Marx, *Capital*, 949.

51. Marx, *Economic and Philosophic Manuscripts of 1844*, 135.

52. Marx, *Capital*, 134.

53. Marx, *Capital*, 289.

54. Marx, *Capital*, 637.

55. Marx, *Capital*, 637.



56. Marx, *Capital*, 784. Repudiating Malthus, Marx offered up his own law of population rooted in the organic composition of capital rather than natural limits of soil and population.

57. Marx, *Capital*, 766n6.

58. Kohei Saito, *Karl Marx's Ecosocialism: Capital, Nature and the Unfinished Critique of Political Economy* (New York: Monthly Review Press, 2017).

59. Rosa Luxemburg, *The Mass Strike*, ed. Tony Cliff (1906; London: Bookmarks, 1986), 46.

60. Vladimir Lenin, "The Urgent Problems of the Soviet Rule," *Pravda*, March 26, 1918, in D. Del Mar and R. D. Collons, eds., *Classics in Scientific Management* (Tuscaloosa: University of Alabama Press, 1976), 377.

61. Lenin, "The Urgent Problems of the Soviet Rule," 377.

62. Lenin, "The Urgent Problems of the Soviet Rule," 377.

63. Gregg Marland, Thomas A. Boden, Robert J. Andres, *Global, Regional, and National CO<sub>2</sub> Emissions in Trends: A Compendium of Data on Global Change* (Oak Ridge, TN: Oak Ridge National Laboratory, US Department of Energy, 2000).

## 7. Neoclassical Scarcity

1. Karl Marx and Friedrich Engels, *The Communist Manifesto*, trans. Samuel Moore (Harmondsworth: Penguin, 1967), 78.

2. Vaclav Smil, *Creating the Twentieth Century: Technical Innovations of 1867–1914 and Their Lasting Impact* (Oxford: Oxford University Press, 2005).

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4. William Morris, *How I Became a Socialist* (1894; London: Twentieth Century Press, 1896), 9.

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11. Léon Walras quoted in Keith Tribe, *The Economy of the Word: Language, History, and Economics* (Oxford: Oxford University Press, 2015), 276.

12. Carl Menger, *Principles of Economics*, trans. J. Dingwall and B. Hoselitz (1871; Grove City, PA: Libertarian Press, 1994), 120–121.

13. William Stanley Jevons, *The Theory of Political Economy* (1871; New York: Kelley and Millman, 1957), 1.

14. The concept of diminishing marginal utility helped settle the diamond-water paradox—that is, the question of why relatively unnecessary commodities, such as diamonds, can be extremely expensive while substances essential to life, such as water, can be free. Diminishing marginal utility also explains why demand curves slope downward.

15. Jevons, *Theory of Political Economy*, vi.

16. Walras suggested not that his general equilibrium theory constituted an accurate representation of current conditions but that it served as an ideal toward which a society should strive.

17. Menger, *Principles of Economics*, 77; Jevons, *Theory of Political Economy*, 304.

18. Léon Walras, *Elements of Pure Economics, or the Theory of Social Wealth*, trans. William Jaffé (1874; Homewood, IL: Richard Irwin, 1954), 65. Also see Philip Mirowski, *More Heat Than Light: Economics as Social Physics, Physics as Nature's Economics* (Cambridge: Cambridge University Press, 1989).

19. Menger, *Principles of Economics*, 75.

20. Menger, *Principles of Economics*, 74.

21. Jevons, *Theory of Political Economy*, 40 (emphasis added). Menger similarly argued that it was an inevitable evolution, part of the basic dynamics of human progress, that “the satisfaction of every lower want in the scale creates a desire of a higher character.”

22. Walras, *Elements of Pure Economics*, 66–67.

23. Thorstein Veblen, *The Theory of the Leisure Class* (1899; New York: Dover, 1994), 31.

24. Veblen, *Theory of the Leisure Class*, 47.

25. Joris-Karl Huysmans, *Against Nature: A New Translation by Robert Baldick* (1884; London: Penguin, 1959).

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31. Rosalind Williams, *Dream Worlds: Mass Consumption in Late Nineteenth-Century France* (Berkeley: University of California Press, 1982), 288.

32. Simon Clarke, *Marx, Marginalism, and Modern Sociology: From Adam Smith to Max Weber* (London: Macmillan, 1982); Julie Matthaei, “Rethinking Scarcity: Neoclassicism, NeoMalthusianism, and NeoMarxism,” *Review of Radical Political Economics* 16, no. 2 / 3 (1984): 81–94; Nicholas Xenos, *Scarcity and Modernity* (London: Routledge, 1989); Carl Wennerlind, “The Historical Specificity of Scarcity” (PhD diss., University of Texas at Austin, 1999); Costas Panayotakis, *Remaking Scarcity: From Capitalist Inefficiency to Economic Democracy* (London: Pluto Press, 2011).

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34. Alfred Marshall, “Some Features of American Industry,” in *The Early Economic Writings of Alfred Marshall, 1867–1890*, vol. 2, ed. John Whitaker (London: Royal Economic Society, 1975), 354.

35. Alfred Marshall, “The Social Possibilities of Economic Chivalry,” *Economic Journal* 17, no. 65 (1907): 7–29, 9.

36. Alfred Marshall, *Principles of Economics*, ed. C. W. Guillebaud (1890; New York: Macmillan, 1961), 86.

37. Marshall, *Principles of Economics*, 87.

38. Marshall, *Principles of Economics*, 3.

39. Alfred Marshall, “The Future of the Working Classes,” in *Memorials of Alfred Marshall*, ed. A. C. Pigou (London: Macmillan, 1925), 101. Originally read at the Conversazione of the Cambridge “Reform Club” on November 25, 1873, and published in *The Eagle*, the magazine of St John’s College, Cambridge University.

40. Marshall, “The Future of the Working Classes,” 10.

41. Marshall, “The Future of the Working Classes,” 14. Marshall points out that an essential feature of this progress was that the working classes continued the trend of having fewer children. A larger population would create Malthusian pressures and make it more difficult to maintain high standards of education for the masses, which would eliminate any progress achieved.

42. Marshall, “The Social Possibilities,” 9.

43. Marshall, “The Social Possibilities,” 9.

44. Marshall, “The Social Possibilities,” 25.

45. John Maynard Keynes, “Economic Possibilities for Our Grandchildren,” in *Essays in Persuasion* (1930; New York: Norton, 1963), 365.

46. Keynes, “Economic Possibilities for Our Grandchildren,” 365.

47. Keynes, “Economic Possibilities for Our Grandchildren,” 367.

48. John Stuart Mill, *Principles of Political Economy*, 751.

49. Keynes, “Economic Possibilities for Our Grandchildren,” 366.

50. Keynes, “Economic Possibilities for Our Grandchildren,” 368.

51. Keynes, “Economic Possibilities for Our Grandchildren,” 372.

52. Stephen Marglin, *The Dismal Science: How Thinking Like an Economist Undermines Community* (Cambridge, MA: Harvard University Press, 2010), 201.

53. Jevons, “The Future of Political Economy, Introductory Lecture at the Opening of the Session 1876–7, at University College, London, Faculty of Arts and Laws,” *Fortnightly Review* 20, no. 129 (1876), 623.

54. Kenneth Arrow and Gerard Debreu, “Existence of an Equilibrium for a Competitive Economy,” *Econometrica* 22, no. 3 (1954): 265–290.

55. See Till Düppe and Roy Weintraub, *Finding Equilibrium: Arrow, Debreu, McKenzie and the Problem of Scientific Credit* (Princeton: Princeton University Press, 2014), 136.

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69. Matthias Schmelzer, *The Hegemony of Growth: The OECD and the Making of the Economic Growth Paradigm* (Cambridge: Cambridge University Press, 2016).

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72. Nordhaus and Tobin, “Is Growth Obsolete?” 522.

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## 8. Planetary Scarcity

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## Conclusion

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