

10 Materiality

Global History and the Material World*

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Global historians have been among the most prolific apostles of the material turn since both fields' inception in the 1990s and early 2000s.¹ Global commodity histories, accounts of the 'global lives of things'² and popular histories of the 'world in objects' – Benin brass portraits, Aztec double-headed serpents and Mughal miniatures that 'tell of the world for which they were made'³ – are only the most visible tip of an iceberg comprising global environmental histories,⁴ world histories of consumption⁵ and global histories of human waste,⁶ fashion or, indeed, epidemic disease and 'contagion'.⁷ Materiality evidently is en vogue among historians adopting a global perspective – as object of study, as a prism, directing the historian's gaze, as source material or, indeed, as illustration, 'material embodiment' and evidence of world-making,

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¹ Jennifer L. Roberts, 'Things: Material Turn, Transnational Turn', *American Art*, 31, 2 (2017), 64–8, here 66. For a similar observation, see Giorgio Riello, 'The "Material Turn" in World and Global History', *Journal of World History* 33, 2 (2022), 193–232, here 195–6.

² Anne Gerritsen and Giorgio Riello, 'Introduction: The Global Lives of Things. Material Culture in the First Global Age', in Anne Gerritsen and Giorgio Riello (eds.), *The Global Lives of Things: The Material Culture of Connections in the Early Modern World* (London: Routledge, 2016), 1–23.

³ See Neil MacGregor, *A History of the World in 100 Objects* (London: Allen Lane, 2010), xv.

⁴ See, for instance, John F. Richards, *The Unending Frontier: An Environmental History of the Early Modern World* (Berkeley: University of California Press, 2003); John R. McNeill, *Something New Under the Sun: An Environmental History of the Twentieth-Century World* (New York: Norton, 2000); Corey Ross, *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World* (New York: Oxford University Press, 2017).

⁵ Frank Trentman, *Empire of Things. How We Became a World of Consumers, from the Fifteenth Century to the Twenty-First* (New York: HarperCollins, 2016).

⁶ James L. A. Webb, *The Guts of the Matter: A Global History of Human Waste and Infectious Intestinal Disease* (Cambridge: Cambridge University Press, 2019).

⁷ Mark Harrison, *Contagion: How Commerce Has Spread Disease* (New Haven: Yale University Press, 2012).

the global scale and connectivity.⁸ This is in some measure paradoxical, to be sure. For matter and material culture have long been, and remain to a degree, associated with proximity, the concrete and the ‘lower order’⁹ in the modern imagination: the ‘micro’ rather than the ‘macro’, the contingent rather than the universal and, indeed, the local rather than the global.

This chapter seeks to uncover a series of implicit, often unspoken assumptions that guide and inform global histories that canvass aspects of the material world. Its particular interest is in the grounds on which historians associate matter and material culture with a particular scale, context or level of observation – the global, most importantly, but also, and seemingly inconsistently, the concrete, the particular or a ‘lower order’. The very words ‘object’, ‘substance’ and ‘matter’ suggest intransience, obduracy and self-evidence. An object is that which, literally, throws itself before and puts itself against us, with ‘the self-evidence of a slap in the face’;¹⁰ a substance is that which ‘stands under or grounds things’ – the ontologically basic, fundamental entities of reality and ‘facts of nature’.¹¹ And yet, matter and material culture tend to stand for something other than themselves – mud for dirt, antiquities for the past, pears for food – on account of humans making sense of them in particular ways.¹² The humanities’ now nearly three-decades-long interest in the ‘agency’ of things, posthumanism and the ‘ontological dignity’ of matter has let semiotics fade into the background, but, with all due humility,¹³ it is still humans – and, in this particular case, historians – who endow matter and material culture with meaning. Matter, the chapter holds, may temporarily become inextricable from the global scale – because certain forms of matter affect the entire planet, for instance, or because a global material event would have been evident as such to men and women in the past – but materiality as such has no ‘natural’ scale, level or context, no self-evident, obvious place in any order.

⁸ For this typology of historians’ uses of materiality, see Annette C. Cremer, ‘Zum Stand der Materiellen Kulturforschung in Deutschland’, in Annette C. Cremer and Martin Mulsow (eds.), *Objekte als Quellen der historischen Kulturwissenschaften. Stand und Perspektiven der Forschung* (Cologne: Böhlau, 2017), 9–22, here 17.

⁹ On materiality and the ‘lower order’, see Fernand Braudel, *Civilization and Capitalism, 15th–18th Centuries*, 3 vols. (Berkeley: University of California Press, 1992), vol. 1, *The Structures of Everyday Life: The Limits of the Possible*, 29.

¹⁰ Lorraine Daston, ‘Introduction: The Coming into Being of Scientific Objects’, in Lorraine Daston (ed.), *Biographies of Scientific Objects* (Chicago: University of Chicago Press, 2000), 1–14, here 2.

¹¹ Howard Robinson, ‘Substance’, in Edward N. Zalta (ed.), *Stanford Encyclopedia of Philosophy* (2014). <https://plato.stanford.edu/archives/fall2021/entries/substance/>; Theodore Schatzki, ‘Nature and Technology in History, *History and Theory*, 42, 4 (2003), 82–93, here 86.

¹² Roland Barthes, ‘Sémantique de l’objet’, in Roland Barthes (ed.), *L’aventure sémiologique* (Paris: Éditions du Seuil, 1985), 249–60, here 251–2.

¹³ Timothy LeCain, *The Matter of History: How Things Create the Past* (New York: Cambridge University Press, 2017).

In its attempt at understanding the criteria practitioners apply to connect matter and material culture with a particular scale, context or level of observation, the chapter is concerned with the entire range of matter surrounding humanity in the modern era, from plants, viruses and oxygen to chintz, plastic and pesticides. One of the most pervasive dichotomies in the Western intellectual tradition is the opposition between man-made, or artefactual, material objects on the one hand, and natural, seemingly inert material objects on the other – presumably a remnant of the Aristotelian hylomorphic model, according to which things are compounds of matter (*hyle*) and form (*morphe*).¹⁴ Scholars have for some time now problematised that dichotomy: even the most natural-looking flower, human body or river course may be the result of human ingenuity, while even the most abstract expressions of human thought and culture – Japanese sericulture and economic growth, or Western mass democracy – could be argued to arise *also* from the ‘material world’.¹⁵ This chapter shares the conviction that differences between artefactual and natural objects of the material world are gradual rather than dichotomous, and a belief in the historicity and contingency of the dichotomy. It remains, at the same time, acutely aware of the import of the differences between various kinds of material objects. Not only does matter have properties that artefacts do not – it is divisible ‘without requiring a change of name’, for instance, and it can endure within other sorts of matter¹⁶ – artefactual material objects also bear many of the cultural associations the chapter sets out to uncover precisely on account of the longevity of the hylomorphic tradition. The chapter reflects on the material world surrounding and comprising human beings in its entirety, because it is only thus that one can comprehend the sum of the historian’s relation to it.

A chapter concerned with materiality, globally, could have dealt with a series of other topics, to be sure. Possibilities for emphases abound; there are various ways one might approach the relationship between global history and the material world. Some might suggest it would be better to consider the materiality of the field as such – global historians’ particular dependence on airplanes, digitisation or archives in places where humidity threatens the paper records.¹⁷ Others might think it pertinent to discuss, instead, the field’s material – both organic and physical-mechanical – language: its jargon of ‘circulation’,

¹⁴ Tim Ingold, ‘Toward an Ecology of Materials’, *Annual Review of Anthropology* 41 (2012), 427–42, here 432.

¹⁵ LeCain, *The Matter of History*, 11, 15, 19. On carbon and democracy, see Timothy Mitchell, ‘Carbon Democracy’, *Economy and Society* 38, 3 (2009), 399–432.

¹⁶ Jens Soentgen, ‘Stuff: A Phenomenological Definition’, in Klaus Ruthenberg and Jaap van Brakel (eds.), *Stuff: The Nature of Chemical Substances* (Würzburg: Königshausen & Neumann, 2008), 71–91, here 79.

¹⁷ On the field’s particular relationship to digitisation, see Lara Putnam, ‘The Transnational and the Text-Searchable: Digitized Sources and the Shadows They Cast’, *American Historical Review* 121, 2 (2016), 377–402.

‘international pressure’ and ‘flow’.¹⁸ Another obvious choice might have been to study the materiality of some of global history’s favourite subjects: the transport infrastructure at the basis of the global economy¹⁹ or the submarine cables, breech-loaders and doses of quinine that made high imperialism – ‘a more territorial form of [imperial] domination’ – possible.²⁰ In centring, instead, on global historians’ association of matter with a particular scale, context or level of observation, the chapter opts for a theme in line with the volume’s general impetus of understanding the conceptual basis of our work as global historians; of exposing the tacit assumptions that guide our work and of holding them up for careful inspection.

Signs of the Global

Most commonly, forms of matter and material culture are seen to ‘reveal a world of movement and interaction’²¹ when they themselves have moved – or, more accurately, have *been* moved about the world, for matter is rarely automotive – at some point during their ‘biographies’.²² Commodities, in particular – by definition moveable and implicated in patterns of exchange²³ – have come to signify world-making, the global economy and ‘connections among people . . . distant and unfamiliar to each other’, because, owing partly to the impact of Immanuel Wallerstein’s world-systems theory, their biographies are often told through world-spanning chains of production, processing, marketing and consumption.²⁴ So have diplomatic gifts,²⁵ contagious germs²⁶ or medicinal imports, many of which were exchanged across boundaries in the

¹⁸ See, for instance, Stefanie Gänger, ‘Circulation: Reflections on Circularity, Entity and Liquidity in the Language of Global History’, *Journal of Global History* 12, 3 (2017), 303–18; Stuart Alexander Rockefeller, ‘Flow’, *Current Anthropology* 52, 4 (2011), 557–78.

¹⁹ Historians have long argued that the transport industry has been one of the prime forces responsible for shifting the world from an essentially national system to the global economy. See, for instance, Martin Stopford, *Maritime Economics*, 3rd ed. (London: Routledge, 2009), 2.

²⁰ Ross, *Ecology and Power*, 8. For one of the first iterations of the argument that technology made high imperialism possible, see Daniel R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (New York: Oxford University Press, 1981), 4.

²¹ Gerritsen and Riello, ‘Introduction: The Global Lives of Things’, 23.

²² Igor Kopytoff, ‘The Cultural Biography of Things: Commoditization as Process’, in Arjun Appadurai (ed.), *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge: Cambridge University Press, 1986), 64–91.

²³ Kopytoff, ‘The Cultural Biography of Things’, 25.

²⁴ Steven C. Topik and Allen Wells, ‘Commodity Chains in a Global Economy’, in Emily S. Rosenberg (ed.), *A World Connecting: 1870–1945* (Cambridge, MA.: Harvard University Press, 2012), 593–814, here 598.

²⁵ Zoltán Biedermann et al., ‘Introduction: Global Gifts and the Material Culture of Diplomacy in Early Modern Eurasia’, in Zoltán Biedermann (eds.), *Global Gifts* (Cambridge: Cambridge University Press, 2018), 1–33.

²⁶ Harrison, *Contagion*.

early or late modern era and are at present regarded as ‘tangible manifestations of . . . global connections’, a ‘global age’ and a ‘global shared culture’.²⁷

While these things’ movement and implication in worldwide connections is undeniable, one ought not to forget other features of their biographies: the circumstance that their ‘globality’ and movement would often have been unknown to, concealed from or – particularly from the late 1800s onwards – irrelevant for our historical subjects;²⁸ the fact that these materials’ movement across large distances would have been short in comparison to other, less mobile stages of their biographies: plant growth, or museum display, let alone gemstone formation; and the fact that contemporaries would sometimes have condemned the things’ global movement as inappropriate, erroneous or extrinsic to their nature, as in discourses about medicines, plants,²⁹ or, indeed, antiques. As the current, virulent debate about restitution exemplifies, to many in the present and the past, some artworks, though they may have lived decidedly ‘global lives’, remain firmly associated with the particular context of their origins or ‘ancient seat’, as Arthur Wellesley, the Duke of Wellington, put it during the Napoleonic wars, when ideas about the proper place of art first (re-)gained currency.³⁰ Already during the 1790s, driven by their opposition to the French revolutionaries’ looting of the Italian peninsula, writers such as Antoine-Chrysostôme Quatremère de Quincy had argued that the best art, though it could not be possessed, belonged in its original setting. They condemned the displacement of artworks from ‘where nature had placed them’, their ‘sequestration from their native country [*l’enlèvement à leur pays natal*]’.³¹ From that moment, at least in some strands of modern thought, many artworks were regarded as intrinsically inalienable and immovable. This is not to say that Jingdezhen porcelain, Saint-Domingue sugar or Potosí

²⁷ Anne Gerritsen and Stephen McDowall, ‘Global China: Material Culture and Connections in World History’, *Journal of World History* 23, 1 (2012), 3–8, here 5; Gerritsen and Riello, ‘Introduction: The Global Lives of Things’, 23. For a similar observation, and an extensive survey and brilliant discussion, of how scholars have taken material artefacts as a way to both explain and illustrate connectivity, see Riello, ‘The “Material Turn” in World and Global History’, 195–204.

²⁸ Alexander Engel, ‘Die Globalität von Gütern und ihre Ökonomien, 1450–1900’, in Christian Kleinschmidt and Jan Logemann (eds.), *Konsum im 19. und 20. Jahrhundert* (Berlin: De Gruyter Oldenbourg, 2021), 115–36, here 119; Jürgen Osterhammel, ‘Warenökonomie und Mobilitätsfolklore’, *Zeitschrift für Ideengeschichte* 15, 1 (2021), 5–13.

²⁹ See, for instance, Alix Cooper, *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe* (Cambridge: Cambridge University Press, 2007).

³⁰ The Duke of Wellington’s letter to Viscount Castlereagh is dated 23 September 1815, Paris. Cited in Margaret M. Miles, *Art as Plunder: The Ancient Origins of Debate about Cultural Property* (Cambridge: Cambridge University Press, 2008), 333.

³¹ A[ntoine-Chrysostôme] Q[uatremère de Quincy], ‘Première Lettre’, in *Lettres sur le préjudice qu’occasionneraient aux arts et à la science, le déplacement des monumens de l’art de l’Italie, le démembrement de ses Ecoles, et la spoliation de ses collections, galeries, musées* (Paris: Desenne, 1796), 5. See also Miles, *Art as Plunder*, 326.

silver may not justifiably be regarded as ‘physical evidence for sustained cultural encounter on a worldwide scale’.³² It is merely to lay bare that present-day global historians’ foregrounding of such objects’ globality has as much to do with the possibilities that their biographies offer as with the historians’ own research interests – in global integration, connections and cosmopolitanism.³³

The other, more important question is whether these forms of matter and material culture ‘reveal a world of movement and interaction’ or whether what they really reveal is ‘movement and interaction’ in a world of isolation, stillness or, at the very least, shorter-range (e.g. (cross-) regional) movement – whether they are ‘likely to offer a distorted view’ of the past, as de Vries put it in relation to the ‘unusually cosmopolitan individuals’ many global historians like to study.³⁴ Indeed, few economic historians, including those studying ‘commodities that transcended national borders’, would deny that ‘the vast majority of economic activity in the world before 1945 was still dedicated to home and local production’.³⁵ Even though the integration of global commodity markets certainly began in the eighteenth century, long into the nineteenth century world trade accounted only for a small share of economic activity and material possessions, even in Western Europe or East Asia.³⁶ By convincing metrics, even in the late twentieth century the bulk of the world’s economic activity remained national or regional.³⁷ Historians of migration have for some time now tempered our image of modernity as an age of unchecked mobility since only a small share of the world population migrated across oceans and continents, even in the nineteenth century – 0.36 per cent in the 1850s, 0.96 per cent in the 1880s, 1.67 per cent in the 1900s and 1.58 per cent in the 1920s.³⁸ The same applies to the material world: in most societies in human history the bulk of foodstuffs, tableware and medicines would have been made, or harvested, close to home. Ceramics, plants and fertilisers leading global lives were exceptions rather than the rule, unusual in their cosmopolitanism. They certainly reveal ‘movement and interaction’ on a global scale, but not, or at least

³² Robert Finlay, *The Pilgrim Art* (Berkeley: University of California Press, 2010), 6.

³³ For the attendant critiques of global history, see Jeremy Adelman, ‘What is Global History Now?’, *Aeon*, 2 March 2017. <https://aeon.co/essays/is-global-history-still-possible-or-has-it-had-its-moment>; Paul A. Kramer, ‘How Did the World Become Global? Transnational History, Beyond Connection’, *Reviews in American History* 49, 1 (2021), 119–41.

³⁴ Jan de Vries, ‘Playing with Scales: The Global and the Micro, the Macro and the Nano’, *Past & Present* 242, supplement 14 (2019), 23–36, here 29.

³⁵ Topik and Wells, ‘Commodity Chains in a Global Economy’, 599.

³⁶ See, for instance, Jan de Vries, ‘The Limits of Globalization in the Early Modern World’, *Economic History Review* 63, 3 (2010), 710–33, here 718; on medicines, see Stefanie Gänger, *A Singular Remedy: Cinchona Across the Atlantic World, 1751–1820* (Cambridge: Cambridge University Press, 2020), 81.

³⁷ Kramer, ‘How Did the World Become Global?’, 133.

³⁸ Adam McKeown, ‘Global Migration, 1846–1940’, *Journal of World History* 15, 2 (2004), 155–89, here 167.

not necessarily, a ‘global age’ of art, trade or consumption. Critics of the wider field of global history have in recent years again and again posed the question of whether the ‘global talk’ of the present-day is ‘a *sui generis* response to events “themselves” in the past or a discourse that, prejudiced by the historians’ global present, sculpts historic realities.’³⁹ Practitioners in the field ought to exercise due care – weigh their evidence carefully, keep a sense of proportion and remind their readers of those proportions – in order not to fall into the latter.

This is not to say that global scholarship ought to cease to deal with the material world, only that there is no material foundation for a field based purely on what critics have come to call ‘connectionism’.⁴⁰ Indeed, matter often became *temporarily* – in certain periods of history – inextricable from the global scale not because it was traded or bartered across distance, but for other reasons, such as the fact that certain forms of matter came to affect the entire planet. The pollution of air, for instance, which for half a million years – since humans first harnessed fire – had been a local issue, grew ‘so comprehensive and large-scale’ with high modernity that it came to upset ‘the fundamentals of global atmospheric chemistry’.⁴¹ Indeed, substances may become ‘global’ – as in, relate to or involve the whole world – not necessarily because humans move them about but because they happen to occur in various places at the same time. Substances such as oxygen, fresh water and clay are distinct from things precisely by virtue of their peculiarly mobile, or, rather, diffuse disposition: the propensity of stuff to exist within another, dissipate and occur at the same time in different places.⁴² The same applies to less appealing sorts of matter, which have likewise come to affect and involve the entire world. While the issue of refuse is as old as humanity, the massive Cold War-era chemical manufacturing of synthetic materials entailed waste that, from the 1970s at least, was publicly recognised as hazardous, toxic and global in its implications.⁴³ The disposal of plastics, pesticides and synthetic fibre has become inextricable from the global scale because exports of hazardous waste to poorer, non-OECD countries became an international business in the 1970s,⁴⁴ but also because chemical waste matter, instead of fully deteriorating, dissipates and accumulates in a finite world – in landfills and open dumps and, as microplastics, heavy metal or trace chemicals, in wildlife, oceans, human

³⁹ Kramer, ‘How Did the World Become Global?’, 133.

⁴⁰ Kramer, ‘How Did the World Become Global?’, 120.

⁴¹ McNeill, *Something New Under the Sun*, 4. ⁴² Soentgen, ‘Stuff’, 78.

⁴³ Martin V. Melosi, *Garbage in the Cities: Refuse, Reform, and the Environment*, rev. ed. (Pittsburgh: University of Pittsburgh Press 2005]). On hazardous waste, see McNeill, *Something New Under the Sun*, 29.

⁴⁴ See, for instance, Simone M. Müller, ‘Corporate Behaviour and Ecological Disaster: Dow Chemical and the Great Lakes Mercury Crisis, 1970–1972’, *Business History* 60, 3 (2018), 399–422; Jennifer Clapp, ‘Africa, NGOs, and the International Toxic Waste Trade’, *Journal of Environment & Development* 2, 3 (1994), 17–46.

foetuses and the lithosphere alike.⁴⁵ The study of plastics, pesticides and synthetics certainly lacks the romance that comes with the study of coffee, calicos or combs, but it is, in many ways, more forcibly tied to the global scale than the latter.

To be sure, the global scale of some material events emerges only in hindsight. Studies of historic climate records for the years 1788–94/5, for instance, retrospectively reveal a global, connected climate crisis: flooding on the Peruvian coast; droughts and famines in the Caribbean, Western Europe, South Asia and southern Africa; and heavy rainfall, high temperatures and epidemic disease in North America.⁴⁶ For most contemporaries, however, these would have been unconnected, local climatic stresses, confined to their own area. The same applies to contagious disease. Historians have argued, largely based on retrospective diagnoses, that the 1790s marked the beginning of ‘a great epidemiological upheaval’, a ‘Victorian Age of Pandemics’ in which diseases such as yellow fever, plague and cholera first affected all continents simultaneously. It was only after a series of cataclysmic disease outbreaks over the late 1800s and early 1900s, however – the Russian Flu of 1889–91, the plague wave of the 1890s and the 1918 Influenza Pandemic – and owing to developments in bacteriology, medical statistics and, not least, reporting, that the connectedness of local disease outbreaks as pandemics (that is, global catastrophes) became part of contemporaries’ common awareness.⁴⁷ This relates to a broader debate about the justifiability of the historian’s declaring an event or moment global in hindsight, without reference to contemporary experience.⁴⁸ In the particular case of material histories, however, it also involves a discussion about the justifiable role of present-day scientific knowledge in historical scholarship: the bringing to bear of evidence from epigenetics, climatology or biochemistry on historical inquiries. To many historians, even the most ‘carefully measured use of the sciences’⁴⁹ is associated with the danger of anachronism – of posing ahistorical questions, or wrenching past

⁴⁵ See, for instance, Nancy Langston, ‘New Chemical Bodies: Synthetic Chemicals, Regulation, and Human Health’, in Andrew C. Isenberg (ed.), *The Oxford Handbook of Environmental History* (Oxford: Oxford University Press, 2014), 259–81. Some 37 per cent of waste is currently disposed of in landfills, 33 per cent in open dumps. See Silpa Kaza et al., *What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050* (Washington DC: World Bank, 2018), 5.

⁴⁶ Richard H. Grove, ‘The Great El Niño of 1789–93 and Its Global Consequences: Reconstructing an Extreme Climate Event in World Environmental History’, *The Medieval History Journal* 10, 1–2 (2006), 75–98.

⁴⁷ Mark Harrison, ‘Pandemics’, in Mark Jackson (ed.), *The Routledge History of Disease* (London: Routledge, 2016), 129–46, here: 132–33.

⁴⁸ Sebastian Conrad and Dominic Sachsenmaier, ‘Introduction: Competing Visions of World Order: Global Moments and Movements, 1880s–1930s’, in Sebastian Conrad and Dominic Sachsenmaier (eds.), *Competing Visions of World Order: Global Moments and Movements, 1880s–1930s* (Basingstoke: Palgrave Macmillan, 2007), 1–28.

⁴⁹ LeCain, *The Matter of History*, 195.

experiences into a present-day lexis and explanatory repertoire, in ways that would distort their understanding of the past.⁵⁰ Few would deny the potential of a closer dialogue with the sciences, however, wherever they conceive materiality, nature and the human body as changing, versatile and historicizeable.⁵¹ The field is in urgent need of novel forms of ecologically sensitive history-writing that engage in ‘the plotting of human relations with matter, nature’ or animals over the long term, as Sujit Sivasundaram has argued, and that reflect on co-evolution, mutation, adaptation or, indeed, causation at the interspecies frontier, including the global history of cultured evasion and taxonomic ignorance behind zoonotic disease transfer.⁵²

Other material events, processes or experiences came to be regarded as universal or global, in that they hinged upon the finitude of the globe, in the eyes of men and women in the past. As early as the late 1700s and early 1800s, for instance, the advent of ‘specifics’ in medicine – medications that worked ‘universally’, that is – entailed ideas about the modern body as physiologically alike, interchangeable and universal, regardless of temperament, gender or origin.⁵³ Human beings in the past may not necessarily have been connected to one another on a material level through the exchange of foodstuffs, tableware or textiles, but many would knowingly have shared a ‘material existence’ – as beings that endure sickness, possess a sense of smell and have a limited lifespan.⁵⁴ Much of the material world became inextricable from the global scale to contemporaries during the Cold War era. Resources came to be seen on a global scale from the mid-twentieth century onwards, for instance, because, given the post-war global imaginary of the world as a closed planet ‘with finite material potential’,⁵⁵ their abundance or shortage became, by definition, *global*.⁵⁶ Whereas the nineteenth century was all about expansion into an ostensibly ‘endless’ material world – vast tropical woodlands,⁵⁷ infinite mineral ores yet more oilfields – along ever-advancing commodity and settlement frontiers that moved on ‘once resources were depleted in any given area’,⁵⁸ the

⁵⁰ On historians of science ‘making past science wholly unfamiliar’, see Lorraine Daston, ‘Science Studies and the History of Science’, *Critical Inquiry* 35, 4 (2009), 798–813, here 806.

⁵¹ LeCain, *The Matter of History*, 28, 208.

⁵² Sujit Sivasundaram, ‘The Human, the Animal and the Prehistory of COVID-19’, *Past and Present* 249, 1 (2020), 295–316.

⁵³ Harold J. Cook, ‘Markets and Cultures: Medical Specifics and the Reconfiguration of the Body in Early Modern Europe’, *Transactions of the Royal Historical Society* 21 (2011), 123–45.

⁵⁴ Braudel, *The Structures of Everyday Life*, 23–9, 31; LeCain, *The Matter of History*, 1–22.

⁵⁵ Fabien Locher, ‘Cold War Pastures: Garrett Hardin and the “Tragedy of the Commons”’, *Revue d’Histoire Moderne et Contemporaine* 60, 1 (2013), 7–36, here 8–9.

⁵⁶ Locher, ‘Cold War Pastures’, 8–9.

⁵⁷ On Brazil, see José Augusto Pádua, ‘Tropical Forests in Brazilian Political Culture: From Economic Hindrance to Ecological Treasure’, in Fernando Vidal and Nélia Dias (eds.), *Endangerment, Biodiversity and Culture* (New York: Routledge, 2015), 148–72; on sub-Saharan Africa and South and Southeast Asia, see Ross, *Ecology and Power*, 274, also 77.

⁵⁸ Ross, *Ecology and Power*, 199–223, here: 141.

later twentieth and twenty-first centuries were marked by many contemporaries' sense of the world's inexorable material finitude. By the 1970s the exhaustion of fossil fuels, fresh water and ores 'on the global scale' had come to be seen as, if not imminent, then within sight.⁵⁹ While into the mid-1900s the history of petroleum, for instance, was that of a moving frontier – from Upper Burmese, Sumatran and Bornean to Venezuelan, Caspian and Persian oilfields⁶⁰ – apprehensions about the 'geological limits on the world oil supply' surfaced from the 1950s and had become commonplace by the early 2000s.⁶¹ This is not to say that changes in the biophysical environment, and awareness of it, had not well preceded the mid-twentieth century. Indeed, naturalists expressed unease about the possibility of anthropogenic resource exhaustion and species rarity as early as the late 1700s.⁶² It was only from the Cold War era, however, that the view that humanity inhabited an endangered planet 'with finite material potential' became a majority discourse.⁶³ From that moment, resource shortages and scarcity were *by necessity* canvassed on a global scale. The way the term biodiversity – that is, species diversity – was used from the mid-1980s, as reinforcing 'the global nature of the conservation problem', is another case in point. What was at stake was no longer 'particular wild places or even individual endangered species; the threat was to the diversity of life on Earth itself.'⁶⁴ The very issue of extinction, indeed, is inextricable from its global dimension. The concept and possibility of species extinction, which was first discussed after Georges Cuvier completed his studies of living and extinct elephants between 1796 and 1806, invariably was contingent both on accurate botanical knowledge – of discrete, fixed and stable ontic unities that could appear or vanish forever – and either certainty about a species' endemism or the ability to contextualise globally. As a matter of fact, the vast swathes of poorly explored territory, where supposedly extinct species might still be found undetected, furnished – other than ideas

⁵⁹ McNeill, *Something New Under the Sun*, 16, 147.

⁶⁰ On the moving oil frontier, see Ross, *Ecology and Power*, 203–23. See also Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (London: Verso, 2011), 45–47.

⁶¹ Kenneth S. Deffeyes, *Hubbert's Peak: The Impending World Oil Shortage* (Princeton: Princeton University Press, 2009), x.

⁶² On naturalists based on Mauritius and in the Caribbean expressing early ecological concerns, see Richard H. Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism* (Cambridge: Cambridge University Press, 1995). On the northern Andes, see Stefanie Gänger, 'Cinchona Harvest, Deforestation, and "Extinction" in the Viceroyalty of New Granada, 1752–1811', *Journal of Environmental History* 24, 4 (2019), 673–9. On tropical forests in Portuguese and Brazilian thought, see Pádua, 'Tropical Forests in Brazilian Political Culture'.

⁶³ Locher, 'Cold War Pastures', 8–9.

⁶⁴ Megan Raby, *American Tropics: The Caribbean Roots of Biodiversity Science* (Chapel Hill: University of North Carolina Press, 2017), 1.

about the mutability of species – a key argument against Cuvier’s reasoning in the early nineteenth century.⁶⁵

Idolatry and Fetishism

In some global material histories, objects are seen not merely to illustrate or supply evidence of world-making, the global scale and connectivity, but as the ‘signal’, ‘material embodiment’ of and agent or ‘actant’ in processes of global integration. The tendency is palpable in the motif of the object as storyteller, telling ‘tales of other places and unknown lands’, which has become almost a topos in the field. In MacGregor-style ‘histories of the world in objects’, which have enjoyed uncommon popularity even among a wider, non-academic public, a slave drum will ‘speak for millions’, Spanish pieces of eight would ‘tell us about the beginning of a global currency’ and an early Victorian tea-set will speak to us about the impact of empire.⁶⁶ Artefacts are regarded as ‘signals from the past’ that communicate messages across time and ‘tell of the world for which they were made’.⁶⁷ Readings of past material culture as signals of past worlds are by no means limited to popular forms of history-writing. In the most learned, nuanced and academic of historical writings, global or not, ‘the objects that move and the objects that are left behind’ are imputed to have ‘stories to tell’, sometimes particularly about contemporaries’ experience of warfare, migration and displacement.⁶⁸ This line of argument is firmly in the tradition of the early 1980s material culture studies, which was marked by the idea of representation – that artefacts reflect and reveal the ‘patterns of mind’ of the cultures that created them.⁶⁹

Whereas in these studies material culture is a carrier, a projection of the more profound, immaterial beliefs lurking behind it, to the more recent scholarship in the wake of agency theory, ‘the matter *is* the mind’.⁷⁰ Indeed, often where historians have adopted theories about the agency of things and the ‘ontological dignity’ of matter – its properties and affordances and the ways in which they act on human practices and discourses⁷¹ – we find yet another common trope: that of

⁶⁵ Grove, *Green Imperialism*, 245, 350, 355; Mark Barrow Jr., *Nature’s Ghosts. Confronting Extinction from the Age of Jefferson to the Age of Ecology* (Chicago: University of Chicago Press, 2009), 23–6, 40–1. On the fixity of species, see also David Sepkoski, ‘Extinction, Diversity, and Endangerment’, in Fernando Vidal and Nélia Dias (eds.), *Endangerment, Biodiversity and Culture* (London: Routledge, 2015), 62–86, here 63–4.

⁶⁶ MacGregor, *A History of the World in 100 Objects*, xxiii, also rear cover endorsement.

⁶⁷ MacGregor, *A History of the World in 100 Objects*, xv.

⁶⁸ Leora Auslander and Tara Zahra, ‘Introduction. The Things They Carried: War, Mobility, and Material Culture’, in Leora Auslander and Tara Zahra (eds.), *Objects of War: The Material Culture of Conflict and Displacement* (Ithaca: Cornell University Press, 2018), 17.

⁶⁹ The expression ‘patterns of mind’ is Jules Prown’s phrase. For the argument outlined here, and the quote, see Roberts, ‘Things’, 65.

⁷⁰ Roberts, ‘Things’, 65. ⁷¹ For a brief survey of these debates, see Roberts, ‘Things’, 65.

the commodity, diplomatic gift or artwork *connecting* people, creating global spaces and bringing about worldwide integration.⁷² Global material histories make reference to forms of matter and material culture contributing to the ‘creation of long-distance social and economic connections’, ‘[t]ying together continents and fuel[ing] commerce’ and as ‘key agents of social cohesion and transcultural systems of value in the emergence of a global political community’.⁷³ Indeed, the language about pots and plants occasionally bears a striking resemblance to that commonly applied to the ‘unusually cosmopolitan individuals’ critiqued by Jan de Vries, who are seen to reveal the global at a human scale, ‘as they overcome barriers, dissolve misunderstandings, ... and create spaces of tolerance’.⁷⁴

Practitioners of global material history have commonly applauded the embrace of agency theory for the study of *all* societies as a way of correcting ‘forms of global cultural subordination that sustain themselves on the ... derogatory function of the term “fetish”’ – a close associate of the ancient idea that the ‘barbarian’, the ‘primitive’ and the ‘savage’ are closer to nature, and to base matter, than those who claim Christianity, civilisation or modernity for themselves.⁷⁵ As a matter of fact, the term fetish (*feitiço*) surfaced during Iberian expansion and came into its own in the eighteenth century, in enlightened ethnology and critique of religion – be it West African or Catholic – as a term designating an inanimate object irrationally revered for powers merely projected onto it.⁷⁶ The concept made its way into the realm of the economic in 1867 with the publication of Karl Marx’s *Das Kapital*, into psychoanalysis via Sigmund Freud’s 1927 writings on fetishism and thence into everyday language, invariably in close company with the charges of irrationality, inferiority and immorality.⁷⁷ Particularly given the concept’s

⁷² For the argument that ‘artefacts, luxuries, and commodities were not the embodiment of an extraneous system of connections; they created themselves global spaces and therefore are “actants”’, see also Riello, ‘The “Material Turn” in World and Global History’, 216.

⁷³ On how ‘commodities tied together continents and fuelled commerce’, see Topik and Wells, ‘Commodity Chains in a Global Economy’, 593. On artefacts contributing to the ‘creation of long-distance social and economic connections’, see Gerritsen and Riello, ‘Introduction: The Global Lives of Things’, 23. On gifts as agents, see Biedermann et al., ‘Introduction: Global Gifts’, 1.

⁷⁴ Vries, ‘Playing with Scales’, 28.

⁷⁵ Roberts, ‘Things’, 66. On the natives’ supposed proximity to nature and matter, see Shepard Krech, *The Ecological Indian: Myth and History* (New York: W. W. Norton, 1999), 16–17; J. G. A. Pocock, *Barbarism and Religion*, vol. 4: *Barbarians, Savages and Empires* (Cambridge: Cambridge University Press, 2008), 160; Anthony Pagden, *The Fall of Natural Man: The American Indian and the Origins of Comparative Ethnology* (Cambridge: Cambridge University Press, 1982), 21.

⁷⁶ Hartmut Böhme, *Fetischismus und Kultur: Eine andere Theorie der Moderne* (Reinbek: Rowohlt, 2006), 181.

⁷⁷ Peter Pels, ‘The Modern Fear of Matter: Reflections on the Protestantism of Victorian Science’, in Dick Houtman and Birgit Meyer (eds.), *Things: Religion and the Question of Materiality* (New York: Fordham University Press, 2012), 37.

pejorative associations, one would certainly not wish to crudely accuse modern material historians of fetishism, as well as its close associate, idolatry.⁷⁸ The sense that material histories exhibit a certain affinity with fetishism in their understanding of objects as ‘material embodiment’ and as possessing powers they may exert over us is hard to refute, however.⁷⁹ A hint of it at least is present both in the idea of ‘representation’ – the circumstance of the thing or matter standing in the place of a society, with the authority to speak on its behalf – and, more plainly, in that of ‘agency’, as its early proponents well knew – the ability of the thing or matter to act on its environment.⁸⁰

One might object that in referring to gifts as agents in the emergence of a global community, or to a tea-set as telling us about empire, historians are either employing a Latourian idiom that has become commonplace in the humanities or, indeed, speaking metaphorically, employing nothing more than a figure of speech to denote that objects convey stories. But metaphors are not concepts; rather, they are prior to them, as historians have argued. They conjure up a vague feeling, without specifying the exact meaning of a historical event or process.⁸¹ One would hardly deny that some forms of matter invite desire in far-away places or become a necessity to distant societies more easily than others, both on account of their imbrication with cultural attributions and their peculiar material affordances – their functional, sensorial and technical capacities, or their particular aesthetic, olfactory or resilient properties.⁸² Nor would anyone deny that material objects permit and encourage us to ask different questions, occasionally even to defy established chronologies or reframe established narratives, including that of ‘connectivity’.⁸³ Surely, action arises from a conglomeration of things *and* persons. The crux of the matter

⁷⁸ An important difference between the two is that the idol’s truth lies not in ‘its status as material embodiment’, as with the fetish, but ‘in its relation of iconic resemblance to some immaterial . . . entity’. William Pietz, ‘The Problem of the Fetish I’, *RES: Anthropology and Aesthetics*, 9 (1985), 5–17, here 7.

⁷⁹ Liliana Ruth Feierstein has argued that in the public memorialisation of the disappeared (and academic discourse about it) in Argentina, the objects that belonged to the dead are fetishised, including by researchers. See Liliana Ruth Feierstein, ‘Of Boxes, Draws, and Crypts or How to Contain (the Work of) Mourning’, Conference paper presented at *Visualising Violence: Art, Memory and Dictatorship in Latin America*, CRASSH, University of Cambridge, 2012. See also her unpublished book manuscript, *Tierras de idolatría: Por una crítica del fetichismo histórico del material turn*, where the author criticizes the ‘idolatrous radicalisation’ of historical analysis of materiality and objects.

⁸⁰ Already Arjun Appadurai wrote that a ‘minimum level of what might be called methodological fetishism’ could not be avoided in a social analysis of things. Cited in Peter Pels, ‘The Spirit of Matter: On Fetish, Rarity, and Fancy’, in Patricia Spyer (ed.), *Border Fetishisms: Material Objects in Unstable Space* (London: Routledge, 1998), 91–121, 93.

⁸¹ For this observation, see Hugo Fazio, ‘La historia global: ¿encrucijada de la contemporaneidad?’, *Revista de Estudios Sociales* 23 (2006), 59–72, here 59, 61.

⁸² See, for instance, Susanne Küchler, ‘Materials and Design’, in Alison Clarke (ed.), *The Anthropology of Design* (Vienna: Springer, 2010), 124–35, here 125.

⁸³ Riello, ‘The “Material Turn” in World and Global History’, 224.

is how to determine the share of material things or affordances in the making or breaking of a global community or commercial link, in relation to the many other factors that would also have gone into it: political momentum, extant economic structures or, indeed, sheer human will.

This necessary distinction is complicated further by the fact that most references to things that talk or bring about global ties are about man-made, commodified or otherwise artefactual objects: tea-sets, cotton or suitcases. Such things are already imbricated with human subjectivity in ways that further obscure the boundaries between human and non-human factors in global historical processes. However, it is precisely their close vicinity with humanity as well as their humanisation – by means of a language about tea-sets that resembles that employed to describe humans – that allows the historian to conjure up the sense that these things were our accomplices in global processes, when in fact these, and they, are at least in part *our* creation. That language implies that there was a congregation of objects that all tended toward integration and cohesion or exhibited a willingness to speak of foreign places, shared in our curiosity about them, when in reality, curiosity, *wanderlust* and free will are some of the last preserves of humanity. As philosophers of action have long argued – incidentally, a field largely unresponsive to and aloof from actor–network theory and the *new materialism*, as Andreas Malm observed – human agency is qualitatively different from that of matter in its intentionality. Fossil fuels, the morning light or a steamboat undeniably have effects, but they do not form intentions or own actions as humans do, including the causal reverberations that outrun our capacity for foresight.⁸⁴ Matter and material culture, though they certainly set constraints and offer possibilities, do not actually talk, nor do they willingly help bring about global integration. Rather, global historians may sometimes be reading their biographies, under the influence of their own time's fascination with agency, global community and cosmopolitanism,⁸⁵ to make them seem to be doing so. They really may sometimes be revering material objects for powers they themselves have projected onto them.

The Pull of the Particular

In many ways, the association between matter and the global scale is, of course, downright counterintuitive. Indeed, historically, materiality has long been, and remains to a degree, associated with immediacy, proximity and the 'lower order'.⁸⁶

⁸⁴ For these observations and a critique of the new materialism in dialogue with the philosophy of action, see Andreas Malm, *The Progress of This Storm: Nature and Society in a Warming World* (London: Verso, 2018), ch. 3, 78–118.

⁸⁵ Adelman, 'What Is Global History Now?'; Kramer, 'How Did the World Become Global?'

⁸⁶ Pels, 'The Modern Fear of Matter', 33. On materiality's association with sensuousness, see Marx's reflections on fetishism. Pels, 'The Spirit of Matter', 101.

Histories of matter, and material culture, will often begin with a narrative of absence, and loss – how for more than a century after its inception as an institutionalised discipline, history was largely purblind to matter and material culture.⁸⁷ The observation is in some measure accurate, to be sure. Not only did a large part of the field, in the tradition of historicism, rely principally on written sources; its understanding of history, broadly speaking, was one in which there were no material – that is, environmental, physical, natural – constraints on human agency or thought.⁸⁸ Modern historians' oversight was expressive of a broader astigmatism of industrialised societies at large that likely had a religious substratum:⁸⁹ the theological premise – present in many of the world's principal religions, from Buddhism and Hinduism to Christianity and Judaism – that materiality, not least our 'body as the core of our sensuous existence', is that which ought to be transcended, the merely apparent 'behind which lies that which is real'.⁹⁰ Indeed, 'fear and contempt' of matter was particularly prominent in Protestant ontology – formative to historicism – which defined the value of the human in part through 'its distinctiveness from, and superiority to the material world'.⁹¹ In the dominant Victorian use of the term, materialism – different from materiality in being prescriptive and abstract rather than descriptive – was the object of a Protestant critique of Epicureanism, lust and gluttony.⁹²

It is the very association of materiality with immediacy, sensuousness and the 'lower order' that may account for some of its appeal to historians, global or not, and to a general public. For one thing, to global material historians in particular, matter and material culture carry the promise of opening up a window onto the little, least-understood details of daily life – eating, dressing, lodging – a sympathetic history that will seemingly bring us closer to our historical subjects, especially the 'indigenous', the non-European and the

⁸⁷ See, for instance, Alfred W. Crosby, 'Past and Present of Environmental History', *American Historical Review* 100, 4 (1995), 1177–89, here 1182. See also Ivan Gaskell and Sarah Anne Carter, 'Introduction: Why History and Material Culture?', in Gaskell and Carter (eds.), *The Oxford Handbook of History and Material Culture* (Oxford: Oxford University Press, 2020), 1–16, here 1.

⁸⁸ Jürgen Osterhammel, 'Die Wiederkehr des Raumes: Geopolitik, Geohistorie und historische Geographie', *Neue Politische Literatur* 43, 3 (1998), 347–97, here 374. On German historicism and its concept of agency, centred on the human 'spirit' (*Geist*) more broadly, see Friedrich Jäger and Jörn Rüsen, *Geschichte des Historismus. Eine Einführung* (Munich: C. H. Beck, 1992), 1.

⁸⁹ Crosby, 'Past and Present of Environmental History', 1182.

⁹⁰ Daniel Miller, 'Materiality: An Introduction', in Daniel Miller (ed.), *Materiality* (Durham: Duke University Press, 2005), 1.

⁹¹ Pels, 'The Modern Fear of Matter', 28, 33; Webb Keane, 'Sincerity, Modernity, and the Protestants', *Cultural Anthropology* 17, 1 (2002), 65–92, here 71.

⁹² Pels, 'The Modern Fear of Matter'.

'subaltern' who have not left written traces.⁹³ A drum formerly owned by an enslaved person or the contents of a maidservant's tie-on pocket not only 'speak for' men and women 'who were unable to write their own story',⁹⁴ moving in their very mundaneness, smallness and intimacy. To many historians, objects convey the human, individual dimensions of past lives; they 'mediate distances of time and space' in ways words and images cannot.⁹⁵ Though historians rarely work with the objects themselves – usually, they rely on inventories, accounts or testaments – material remains 'carry a special credibility' and authority for many scholars, partly because they *could* be verified through the senses.⁹⁶ Like curators and visitors of museums that offer a 'more fully embodied experience' – where people are made to smell food, feel the sun on their head or take their place in a cattle car – historical writings are a reflection of the contested, yet deep-rooted, phenomenological belief that the touching, smelling or feeling of things lends proximity, 'a more immediate sense of connection' and understanding than would a history told in words.⁹⁷

This is treacherous, to be sure. As any sensory historian will tell you, material remains cannot be verified through the senses because the cultural and historical context overwrites physiological factors and because physiological factors change over time, partly in response to cultural and historical context.⁹⁸ What is more, the notion that contact with historical materials entails some sort of proximity or superior understanding is culturally contingent, and in some measure irrational. As Ruth Klüger, a Holocaust survivor, once put it in relation to memorial sites on former concentration camp grounds, it is 'superstition (*Aberglaube*)' to think that the ghosts cling to things or to the places where they departed from this life. Immediacy does not result from being in the same place but only from being in the same place at the same time

⁹³ Elizabeth M. Brumfiel, 'It's a Material World: History, Artifacts, and Anthropology', *Annual Review of Anthropology* 32 (2003), 205–23, here 207–8. See also Gaskell and Carter, 'Introduction: Why History and Material Culture?', 5.

⁹⁴ MacGregor, *A History of the World in 100 Objects*, xxiii. On tie-on pockets, see Barbara Burman and Ariane Fennetaux, *The Pocket: A Hidden History of Women's Lives, 1660–1900* (New Haven: Yale University Press, 2020), 15.

⁹⁵ Auslander and Zahra, 'Introduction: The Things They Carried', 17.

⁹⁶ Brumfiel, 'It's a Material World', 207–8.

⁹⁷ Auslander and Zahra, 'Introduction: The Things They Carried', 3, 17. On touch and immediacy, see Dorothee Kimmich, *Lebendige Dinge in der Moderne* (Konstanz: Konstanz University Press, 2011), 105–6.

⁹⁸ For a critique of modern science and an unreflective reliance on it, see Constance Classen, *The Deepest Sense: A Cultural History of Touch* (Urbana: University of Illinois Press, 2012). For a critique of anachronism among sensory historians, see also Mark M. Smith, 'Producing Sense, Consuming Sense, Making Sense: Perils and Prospects for Sensory History', *Journal of Social History* 40, 4 (2007), 841–58, here 841.

(*Zeitschaft*).⁹⁹ Still, the appeal of materiality on account of its association with sensuousness and the promise of immediacy is pervasive and all but inescapable; unwittingly, global historians may be affected by it.

Materiality is commonly associated not just with the tangible, the intimate and the mundane, but also, along those same lines, with particularity, ‘specificity’ and singularity.¹⁰⁰ Though by now heavily theorised, things intuitively promise stability, warmth and relief from theory, as Bill Brown put it in a 2001 article.¹⁰¹ Indeed, materiality, or materialism, is widely seen as ‘an aspect of a relation between the abstract and the concrete’,¹⁰² invariably falling on the side of the concrete – the ‘micro’ rather than the ‘macro’,¹⁰³ the contingent rather than the universal or, indeed, the ‘local’,¹⁰⁴ rather than the global. Untranscended materiality has often been placed in opposition to theory, ‘order’ and structure and, conversely, attributed an affinity with, as Peter Pels put it, ideas about ‘transgression’, ‘fancy’ and the ‘fact’,¹⁰⁵ – the ‘apparently noninterpretative (numerical) description . . . of particulars’ rather than the systematic claims derived from it.¹⁰⁶ Indeed, the value attributed to non-artefactual forms of matter, as a natural fact and source of certainty on which to build human knowledge, is a hallmark of Western modernity.¹⁰⁷ Even though, somewhat ironically, it was largely through sociohistorical processes of abstraction – the abstract space of the global market, statistical enumeration or naturalist taxonomy – that our modern ‘inclination to associate the material with the concrete’ came about,¹⁰⁸ the association is a formidable and a tenacious one. While the relationship with singularity for late-modern material culture may be more tenuous – with changes in manufacturing and the rise of industrial production affecting material culture post-1800 – that with particularity is not.¹⁰⁹ More recently, digitisation, especially digital surrogacy, in

⁹⁹ Ruth Klüger, *Weiter leben. Eine Jugend* (Göttingen: Wallstein Verlag, 1994), 76. I would like to thank Liliana Feierstein for drawing my attention to Klüger’s reflections.

¹⁰⁰ According to Peter Pels, ‘the fetish presents a generic singularity’. Pels, ‘The Spirit of Matter’, 98. On ‘specificity’, see Joanne Begiato, ‘Moving Objects: Emotional Transformation, Tangibility, and Time Travel’, in Stephanie Downes et al. (eds.), *Feeling Things: Objects and Emotions Through History* (Oxford: Oxford University Press, 2018), 229–42, here 230.

¹⁰¹ Bill Brown, ‘Thing Theory’, *Critical Enquiry* 28, 1 (2001), 1–22, here 16.

¹⁰² Pels, ‘The Modern Fear of Matter’, 31.

¹⁰³ ‘Thinking with things’ is commonly associated with the field of microhistory. Laurel Thatcher Ulrich et al., ‘Introduction: Thinking with Things’, in Laurel Thatcher Ulrich et al. (eds.), *Tangible Things. Making History through Objects* (Oxford: Oxford University Press, 2015), 1–20, here 3.

¹⁰⁴ On the concept of ‘the local’ in global history, see Stefanie Gänger, ‘“Lokal”: Bemerkungen zur Sprache der neueren Welt- und Globalgeschichte’, in Gabriele Lingelbach (ed.), *Narrative und Darstellungsweisen der Globalgeschichte* (Oldenbourg: De Gruyter, 2022), 179–88.

¹⁰⁵ Pels, ‘The Modern Fear of Matter’, 31; Pels, ‘The Spirit of Matter’, 110–11.

¹⁰⁶ Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago: University of Chicago Press, 1998), xiii.

¹⁰⁷ Pels, ‘The Modern Fear of Matter’, 272. ¹⁰⁸ Pels, ‘The Modern Fear of Matter’, 270.

¹⁰⁹ Cremer, ‘Zum Stand der Materiellen Kulturforschung in Deutschland’, 16.

purporting to supersede matter and bringing it into focus, may well have further exacerbated the pull of materiality as well as its long-standing association with tactility, particularity and ‘originality as authenticity’, as various material historians have suggested.¹¹⁰ Walter Benjamin’s argument, first made in his 1936 essay ‘The Work of Art in the Age of Mechanical Reproduction’, that the *aura* of an object is tied to its ‘unique existence’, and consequently lost in reproductions, is at present widely, if controversially, applied to digital surrogates.¹¹¹

Global historians may cherish the material world as they do because materiality’s close relation to the particular, the authentic and the concrete somehow assists their cause. It certainly helps them avoid the accusation of a penchant for ‘macro-perspectives’, ‘totality’ and structuralism still sometimes levelled at them.¹¹² It also furthers, however, what has, for better or worse, been their most fundamental argument: the contention of a growing and more or less continuous global integration. For if even the most intimate, mundane and singular aspects of life speak to world-making and connectivity, who could deny global historians having won their case entirely? At any rate, an inquiry into the hidden premises underlying present-day global material histories – our enthusiasm for the particular, the singular and the ‘auratic’, and the awe of matter that permeates it – is, so the chapter holds, just as worth our while as that into Protestant historicism or enlightened ethnology. Scholars have studied for some time now how specific, local conditions affected and altered the writing of global history in various parts of the globe.¹¹³ It may well be that modern historians’ association of matter with sensuousness and immediacy, their evident enthusiasm for the particular and the ‘authentic’, is in some measure owing to the socioreligious (especially Protestant) and cultural texture of Northwest European and North American societies. There is no reason why historians from these parts should not, just like West African or East Asian ones, be influenced by local, contingent circumstances; it is their continued ability to set trends on a global scale, however, that may well account for some of the pull of material histories globally.

¹¹⁰ Jasmine E. Burns, ‘The Aura of Materiality: Digital Surrogacy and the Preservation of Photographic Archives’, *Art Documentation: Journal of the Art Libraries Society of North America* 36, 1 (2017), 1–8, here 6.

¹¹¹ Burns, ‘The Aura of Materiality’, 4; Brown, ‘Thing Theory’, 16. For the original quote, see Walter Benjamin, ‘The Work of Art in the Age of Mechanical Reproduction’, in *Illuminations*, ed. Hannah Arendt (New York: Schocken Books, 1969), 1–26, here 3.

¹¹² For a critique of global history’s supposed association with ‘totality’ and ‘macrohistory’, see Sebastian Conrad, *What Is Global History?* (Princeton: Princeton University Press, 2016), 12.

¹¹³ Sven Beckert and Dominic Sachsenmaier, ‘Introduction’, in Sven Beckert and Sven Sachsenmaier (eds.), *Global History, Globally: Research and Practice around the World* (London: Bloomsbury Academic, 2018), 1–18, here 5.

Orders and Storeys

This chapter is not the place to engage in debates about the genealogy, the constructedness or, indeed, the aptness of the idea of scale, of ‘upper’ and ‘lower levels’ and of ‘a layered order’,¹¹⁴ nor to question whether historical processes are indeed located at the level of certain storeys and whether distinct ‘levels of observation can reveal different aspects’,¹¹⁵ or ought to be assigned fundamentally ‘different heuristic potentials’.¹¹⁶ It is the place to argue, however, that the association between particularity and materiality contributes to the latter’s attraction: for the firmly entrenched notion that there is such a thing as ‘a layered order’, alongside deeply rooted dichotomies of original and copy, materiality and ideality,¹¹⁷ practice and theory,¹¹⁸ would have played a part in drawing historians, global or not, to the material world. The chapter is also the place to observe that materiality has no natural scale, level or context, no self-evident, obvious place in any order. It can be both intimate and intricate in atmospheric chemistry, cosmopolitan at one moment and parochial the next, both of a lower and of the highest order. Global historians have been at the forefront of critiques of scholarship that, in framing national objects of inquiry, has participated in naturalising them.¹¹⁹ It is precisely in the knowledge of their own rich deconstructivist tradition and of the equally rich ‘biographic’ tradition in material history that global historians ought to approach the material world. Critically aware of their own times’ socioreligious texture, global imaginary and discursive habits, they will be able to see the world of matter and material culture in all its changeability, elusiveness and polysemy.

¹¹⁴ Braudel, *The Structures of Everyday Life*, 29.

¹¹⁵ Christian de Vito, ‘History without Scale: The Micro-Spatial Perspective’, *Past & Present* 242, supplement 14 (2019), 348–72, here 354–5.

¹¹⁶ De Vito, ‘History without Scale’, 353–5. ¹¹⁷ Roberts, ‘Things’, 68.

¹¹⁸ For a genealogy of the dichotomy between theory and practice, see Simon Schaffer et al., ‘Introduction’, in Simon Schaffer et al. (eds.), *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialisation* (Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2007), 309–23.

¹¹⁹ Kramer, ‘How Did the World Become Global?’, 126.