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CONTENTS

	<i>page</i>
TRAJAN AND THE ORIGINS OF ROMAN HOSTILITY TO THE JEWS: <i>by Martin Goodman</i>	3
INHERITED STATUS AND SLAVERY IN LATE MEDIEVAL ITALY AND VENETIAN CRETE: <i>by Sally McKee</i>	31
LIFE, LOVE AND LITIGATION: SILEBY IN THE 1630S: <i>by Bernard Capp</i>	55
IN PURSUIT OF LUXURY: GLOBAL HISTORY AND BRITISH CONSUMER GOODS IN THE EIGHTEENTH CENTURY: <i>by Maxine Berg</i>	85
MATERIAL CULTURE, ECONOMIC INSTITUTIONS AND PEASANT REVOLUTION IN LOWER LANGUEDOC 1770–1840: <i>by James Livesey</i>	143
THE SOCIAL DYNAMICS OF NATIONALIST POLITICS IN THE WEST OF IRELAND 1898–1918: <i>by Fergus Campbell</i>	175
CREATING CONSERVATIVE FABIANS: THE CONSERVATIVE PARTY, POLITICAL EDUCATION AND THE FOUNDING OF ASHRIDGE COLLEGE: <i>by Clarisse Berthezène</i>	211

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IN PURSUIT OF LUXURY: GLOBAL HISTORY AND BRITISH CONSUMER GOODS IN THE EIGHTEENTH CENTURY*

Their own steel and iron, in such laborious hands, become equal to the gold and rubies of the Indies.

David Hume, 'Of Commerce' (1752)

In 1983 Captain Michael Hatcher, a British-born Australian, mounted a salvage operation on a ship in the South China Sea. He recovered what became known as the Nanking Cargo, sixty thousand pieces of Ming porcelain from one ship which had sunk in the mid 1640s on the way from China to Batavia. The quantities of porcelain recovered caused a minor sensation in the European art and antiquities markets, and also opened historians' eyes to the prodigious quantities of what they considered to be high-luxury wares which were being transported from Asia to Europe via colonies such as Batavia three centuries ago. The impact of the Nanking Cargo on the media of today parallels the effect in Holland and northern Europe of the seizure by the Dutch of two Portuguese ships, the *Santiago* and the *Santa Catarina*, in 1602. The *Catarina* alone yielded ten thousand pieces of porcelain. Great sales fetching extremely high prices extended into 1604, and had an electrifying effect on Dutch traders. In the cargoes of the Portuguese ships were also to be found 'pintadoes'. These curious painted and printed cottons were initially imported as furnishing fabrics, especially bed hangings, but from the 1660s they were increasingly marketed as a new textile for fashionable clothing.¹ Europe's East India Companies

* The ideas for this article were first set out in panel sessions at the 'Reconfiguring the British' seminar at the Institute of Historical Research, University of London, in 2000, at the Economic History conference in Glasgow in 2001 and in my inaugural lecture in 2001 at the University of Warwick. Many thanks to Margot Finn, Rhys Jenkins, Patrick O'Brien, John Robertson, Andrew Sherratt and Megan Vaughan for suggestions and critical reading, and to Helen Clifford and Shelagh Vainker for help with illustrations.

¹ Gang Deng, *Chinese Maritime Activities and Socioeconomic Development, c.2100 BC – 1900 AD* (Westport and London, 1997), 115.

found and promoted the appeal of eastern luxury goods to western buyers. This link between East and West contributed to the wider expansion of consumption and industry in Europe which accompanied and followed it.

It was not until the later seventeenth and eighteenth centuries that an import trade in luxury goods from India and China to Europe was to transform the European economies themselves. For while there had long been a global trade in luxury goods, the merchants and East India Companies then discovered that European markets for these Asian luxury goods might be far greater than those of the traditional court luxury which had long underpinned the trade. What happened was that the global trade in particular types of manufactured consumer goods stimulated a programme of product innovation in Europe in attempts to 'imitate' and to make indigenous those products which were at that time manufactured in the advanced consumer societies of China and India. The import trade in luxury goods from Asia was a vital step — market potentials beyond court and aristocratic circles were identified in a fashion demand for the goods: supplies were increased as Asian production of more varieties and qualities was adapted to the European market. And ultimately Europeans imitated the goods, developing their own fashion and luxury consumer-goods industries.

Yet, while Europeans imported these products and copied them, they did not import the technologies on which they were based; Asian consumption was transferred to Europe, but not Asian production systems. The adaptation of European, and especially British, technologies and resources to the making of substitute Asian luxuries was to generate a whole range of different consumer products: British new consumer goods. These became perceived by the end of the eighteenth century as the distinctive modern alternatives to former Asian and European luxuries. Eric Hobsbawm once termed foreign trade the 'spark' which lit the Industrial Revolution; his argument, much disputed since, was based on Britain's exports and re-exports.² But it was Europe's imports from Asia, and imports especially of manufactured consumer goods, which were to provide the vital turning point. Global trade did matter to European industrialization,

² E. J. Hobsbawm, *Industry and Empire* (London, 1968), 50; cf. Ralph Davis, *The Industrial Revolution and British Overseas Trade* (Leicester, 1979), 9–11, 62–76.

but not in ways that have been set out in the standard accounts of the Industrial Revolution and of imperialism.

This article argues that imports of goods from the East made a difference to the subsequent development of European, but especially British, consumer markets and production technologies. This was not, however, a straightforward story of import-substitution industrialization, that is, of infant industries developed behind high tariff walls to supply domestic markets. Instead, Europeans responded to Asian luxuries by learning from their imports, developing knowledge of markets and adapting processes. Importing Asian luxuries demanded the making of consumer markets both at home and abroad for things never before needed or even desired. Responding to Asian imported luxuries had far-reaching effects in transforming both consumption and production.

This article makes the case for a connection between global luxury, European consumerism and industrialization in the eighteenth century. My case will be developed in three propositions, corresponding to three sections of the article. First, global trade mattered, especially that based on fashion and luxury spending; particularly important were imports, and the effects these had in fostering new consumer cultures. The first section of the article, 'Global trade and consumption in the eighteenth century', will accordingly review the contribution of global history to the understanding of industrialization. It examines the significance now attached to consumer culture, especially global luxury in industrial development. My second argument is that this consumer culture based on global trade had a direct impact on production and invention in Britain. Asian imports stimulated British production of consumer goods, but Asian technologies were not transferred. Thus my second section, 'Imports, imitation and production', focuses on theories of import-substituting industrialization and the characteristics of Asian manufactured goods imported to Britain. My third proposition is that the connection between Asia and Europe needs to be extended to Africa and the New World if we are to understand fully the global context of the making of European and especially British consumer goods. Thus the third section, 'Empire and British consumer goods', outlines how British producers, in imitating Asian goods, drew on the resources and markets of empire. Britain's 'indigenous' resources were

perceived to extend beyond her borders to include her New World colonies from Canada to the Caribbean. Imitative invention adapting the use of non-eastern materials made Britain's new consumer goods 'indigenous', not oriental.

I

GLOBAL TRADE AND CONSUMPTION IN THE EIGHTEENTH CENTURY

Global History

The part played by global trade in the history of industrialization has been relatively neglected by recent generations of economic historians. These found that foreign trade accounted for less than 10 per cent of the increase in England's total product between 1700 and 1780, and turned to internal domestic factors for explanations of economic growth.³ The broader impact of global trade is now, however, due for reconsideration from the perspective of consumer society. The recent concept of 'globalization' has also stimulated rethinking. Eric Hobsbawm, for example, perceives recent developments that fall under the concept of globalization in terms of enormous speed-up, wider access, abolition of distance and time, and the emancipation of manufacturing and even agricultural products from the territories in which they were produced, but the 'modern industry' of nineteenth-century Britain anticipated these developments.⁴ This new sense of the global has not so much led historians to demonstrate that earlier historical epochs also had a global dimension, and to measure their effects against current global dynamics, but has rather urged them to reconsider the subjects once studied in national, regional or even purely local frameworks.⁵

³ Stanley L. Engerman, 'Mercantilism and Overseas Trade, 1700–1800', in Roderick Floud and Donald McCloskey (eds.), *The Economic History of Britain since 1700* (Cambridge, 1994).

⁴ Karl Marx, *The Communist Manifesto*, ed. E. J. Hobsbawm (London, 1998), 'Introduction'. Refer back to Hobsbawm, 'The Development of the World Economy', *Cambridge Jl Econ.*, iii (1979), 311–17.

⁵ Much of this rethinking has, however, concentrated on realigning the place of empire in the development of the British economy. See, for example, P. K. O'Brien, 'Imperialism and the Rise and Decline of the British Economy, 1688–1989', *New Left Rev.*, ccxxxviii (1999). See also Kevin H. O'Rourke and Jeffrey G. Williamson, 'When Did Globalisation Begin?', *European Rev. Econ. Hist.*, vi (2002), 27–35.

Our understanding of the impact of global trade has been seen thus far through the work of world historians and theorists of globalization. Historical structuralists such as Immanuel Wallerstein, Samir Amin and more recently Giovanni Arrighi identified centre-periphery polarities, but instead of studying interconnections they focused on issues of domination and ascendancy by one part of the globe, the West, over the other, going back to the merchant capitalism of the fifteenth century. The dependency theorists Andre Gunder Frank and Janet Abu-Lughod developed non-western perspectives on core and peripheral regions, taking the analysis back to the twelfth century, but again focused on imperial domination rather than interconnections.⁶

Recent global history has reopened debates on economic transition in Europe in the eighteenth century, but from the perspective of Asia. Earlier arguments for European exceptionalism have been set aside in favour of conjunctural features, which in the course of the eighteenth century set in motion a *divergence* in development paths between Europe and Asia. A strong case has been made by Kenneth Pomeranz for more economic similarities than differences across Eurasia before the later eighteenth century, followed by divergence after.⁷ Pomeranz argued for a basic ecological imbalance which came into play over the course of the eighteenth century; Europe's, and especially Britain's, access to coal, its development of technologies using coal and its access to New World resources gave it the lead over Asia that neither consumption and proto-industrialization nor labour productivity and market institutions had previously provided. A cause of divergence so singularly rooted in ecological factors has prompted an escalation of criticism focusing on

⁶ Immanuel Wallerstein, *Capitalist Agriculture and the Origins of the European World Economy* (New York, 1974); Samir Amin, *The Accumulation of Capital on a World Scale* (New York, 1974); Andre Gunder Frank, *ReOrient: Global Economy in the Asian Age* (Berkeley, 1998); Janet Abu-Lughod, *Before European Hegemony: The World System, AD 1250-1350* (New York and Oxford, 1989). See the discussion of global approaches to history in A. G. Hopkins, 'The History of Globalization — and the Globalization of History?', in A. G. Hopkins (ed.), *Globalization in World History* (London, 2002).

⁷ Kenneth Pomeranz, *The Great Divergence: China, Europe and the Making of the Modern World Economy* (Princeton, 2000); R. Bin Wong, *China Transformed: Historical Change and the Limits of European Experience* (Ithaca and London, 1997), 57; R. Bin Wong, 'The Search for European Differences and Domination in the Early Modern World: A View from Asia', *Amer. Hist. Rev.*, cvii (2002), 469.

factors from agricultural productivity to land organization and property relations, to demography and social institutions.⁸ This debate on the divergence between East and West, like that on the domination of the West over the East, has not addressed global interconnections.

The divergence between Europe and Asia may have had an ecological foundation, but these resource shocks were not random events; they were historical, cultural and political. The reasons for the exploitation of coal and New World resources over the eighteenth century lie in opportunities developed for technological creativity, cultures of skill and the mercantile and colonial policies which made New World resources available. Prasannan Parthasarathi in a recent review of the debate in this journal makes the point that the key divide between East and West that opened up in the eighteenth century was based not on ecology, but on technology. 'It was not simply the presence of coal that expanded ecological possibilities, but technical developments that made possible the widespread adoption of coal'.⁹ Furthermore, a recognized technical sophistication in India and China was not enough in itself; Europe followed a path of technological development whose end result was a manufacturing revolution. The innovative activities of British cotton producers were prompted by the 'need to out-produce Indian textiles'.¹⁰ Parthasarathi here points to the impact of global trade in fostering new technologies in Britain: global interconnections enabled divergent development paths.

⁸ Jack Goldstone, 'The Problem of the "Early Modern" World', *Jl Econ. and Social Hist. of the Orient*, xli (1998), 265–75. See 'AHR Forum: Asia and Europe in the World Economy', essays by Manning, Pomeranz, Bin Wong and Ludden, *Amer. Hist. Rev.*, cvii (2002); 'Conference: European Miracle', essays by van Zanden, Pomeranz, Hunter, Bayly, Pamuk and O'Brien, *Itinerario*, xxiv (2000); Kenneth Pomeranz, 'Is there an East Asian Development Path? Long-Term Comparisons, Constraints, and Continuities', *Jl Econ. and Social Hist. of the Orient*, xliiv (2001), 328–36; Philip C. Huang, 'Development or Involution in Eighteenth-Century Britain and China?', *Jl Asian Studies*, lxi (2002); Kenneth Pomeranz, 'Beyond the East–West Binary: Resituating Development Paths in the Eighteenth-Century World', *Jl Asian Studies*, lxi (2002).

⁹ Prasannan Parthasarathi, 'The Great Divergence', *Past and Present*, no. 176 (Aug. 2002), 282. This point on the crucial part played by technology is also made by P. H. H. Vries, 'Are Coal and Colonies Really Crucial? Kenneth Pomeranz and the Great Divergence', *Jl World Hist.*, xii (2001), 436–8, and Jack Goldstone, 'Efflorescence and Economic Growth in World History: Rethinking the "Rise of the West" and the Industrial Revolution', *Jl World Hist.*, xiii (2002), 353–66.

¹⁰ Parthasarathi, 'Great Divergence', 288.

Technological competition, however, is spurred on by the prospect of a market, of consumers whose needs and desires are there to be met, or to be fostered by the prospect of new or cheaper commodities. Thus a major incentive to this shift in producer horizons was provided by new frameworks of consumption. Consumerism was a main driver of the global interconnections that ultimately fostered Europe's, and especially Britain's, lead over Asia after the later eighteenth century.

Consumption and Luxury

Consumer society, luxury and global trade played their part over a century before this divergence in ways which we have only recently begun to understand from the viewpoint of our current consumer cultures. This is to revive debate on connections between consumption and the wider economy in the period before the Industrial Revolution. A 'consumer revolution' of the eighteenth century has been largely discounted by many historians as a decisive turning point. A 'consumer society' of the seventeenth century was already conceptualized by historians who explored the genesis then of widespread new spending patterns, advertising and retailing.¹¹ Equally, historians of Ming China and Renaissance Italy found vibrant consumer cultures in their subjects, and the ancient Greek and Roman shopping experience contains parallels to our own.¹²

¹¹ Neil McKendrick, John Brewer and J. H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (London, 1982), 9–33; Joan Thirsk, *Economic Policy and Projects: The Development of a Consumer Society in Early Modern England* (Oxford, 1978), 1–23, 158–80. An extended critique of the 'consumer revolution' is provided by B. A. Holderness, 'The Birth of a Consumer Society', *Eng. Hist. Rev.*, xcix (1984), 122–4. A later critique is provided in John Styles, 'Manufacturing, Consumption and Design in Eighteenth-Century England', in John Brewer and Roy Porter (eds.), *Consumption and the World of Goods* (London, 1993), esp. 535–42.

¹² Craig Clunas, *Superfluous Things: Material Culture and Social Status in Early Modern China* (Cambridge, 1991); Richard Goldthwaite, *Wealth and the Demand for Art in Italy, 1300–1600* (Baltimore, 1993), 176–242; H. Van der Wee, 'Industrial Dynamics and the Process of Urbanization and De-Urbanization in the Low Countries from the Late Middle Ages to the Eighteenth Century: A Synthesis', in Herman Van der Wee (ed.), *The Rise and Decline of Urban Industries in Italy and in the Low Countries* (Leuven, 1988); S. Ciriaco, 'Mass Consumption Goods and Luxury Goods: The De-Industrialization of the Republic of Venice from the Sixteenth to the Eighteenth Century', in Van der Wee (ed.), *Rise and Decline of Urban Industries*; Paul Veyne, *Bread and Circuses: Historical Sociology and Political Pluralism*, introduction by Oswyn Murray, trans. Brian Pearce (London, 1990).

It was not consumption in general, however, which provided the incentive for major shifts in productive resources, but a shift in tastes for novelties, fashion goods and luxuries. Jan de Vries made this point in his concept of the 'industrious revolution'. This is defined as a crucial phase of reallocation of household labour and consumption towards the market; it was stimulated not by the prospect of more of the same commodities, but by the desire for novelties and even luxuries.¹³ De Vries's theory is about the impact of luxury, not on the rich, but on modest and ordinary consumers. It rests on intra-household decisions over labour, leisure and consumption taken among husbands, wives and children. De Vries charts a shift away from relative self-sufficiency in consumer goods towards market-supplied goods, that is, a shift from traditionally female-supplied home-produced goods to commercially produced items. The wife in the de Vries model takes on a primary role as decision-maker in consumption, and occupies a strategic place at the intersection of reproduction, production and consumption. She is an 'active consumer' prompted to change the allocation of her labour from household to market-based production by the prospect of buying novelties and luxuries for herself and her family. We can take this point a stage further to argue that the making of a wide domestic market through a household reallocation of labour was connected to the rise of new domestically produced goods which imitated the characteristics of former globally traded luxuries.

This shift away from the discussion of consumption in general towards an investigation of the specific impact of luxuries and novelties in the period reflects the development of our own current priorities since the 1980s. There has been an upscaling of consumer aspirations associated with luxury and designer goods, with the branding revolution described by Naomi Klein, and with this the decline of the High Street chains and the mass consumerism which once underpinned them. The concept of luxury now features in the language of consumerism. The lifestyle choices of affluence are associated with distinction, diversity and individuality, and these are set

¹³ This refers to the consumer incentive of Jan de Vries's 'industrious revolution'. See de Vries's critique of 'consumer revolution' in his 'Between Purchasing Power and the World of Goods', in Brewer and Porter (eds.), *Consumption and the World of Goods*, esp. 85–9, 107–15.

within a framework of globalization.¹⁴ Consumption has become a key marker of inclusion and exclusion as set out in a recent *Human Development Report*.¹⁵ Production and marketing frameworks for designer and fashion goods are global, and oriented increasingly towards Asia.¹⁶ Even the production of Britain's flagship luxury chinaware, Wedgwood, has recently been transferred to China.¹⁷

Luxury is central to the global history of consumption. While our own present preoccupations may have prompted us to give it more notice, luxury and its connections to world trade are certainly no new development. Indeed archaeologists have traced extensive trade networks in exotics such as obsidian back to the period before farming and extensive cereal production.¹⁸ Neither is luxury a sideline relevant only to aristocrats and what was once called the 'international jet set'.¹⁹ The early modern economic debates on luxury no longer seem as remote as they once did to economic historians, who simply measured the contribution of international trade and empire to economic growth and accorded them relatively minor parts.²⁰ These indicators, valuable though they are, need to be placed in a context of perceptions and responses. Luxury provides a key to trade

¹⁴ Naomi Klein, *No Logo* (London, 2000), 27–62, 195–230; cf. the discussion of the upscaling of consumption in Juliet Schor, *The Overspent American* (New York, 1998); and Robert Frank, *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess* (New York, 1999). Advertisements featuring the concept of luxury became common from the later 1990s. See, for example, *House and Garden* (American edn, July 1997), and *Vogue* (UK edn, Jan. 1999).

¹⁵ 'Consumption in a Global Village — Unequal and Unbalanced', in United Nations Development Programme, *Human Development Report 1998: Consumption for Human Development* (New York, 1998), 46–65.

¹⁶ David Held et al., *Global Transformations: Politics, Economics and Culture* (Cambridge, 1999), 149–87; Arjun Appadurai, *Modernity at Large: Cultural Dimensions of Globalization* (Minneapolis and London, 1998), 27–84.

¹⁷ 'Thousand Jobs Go as Wedgwood Opts for Cheap Chinese Output', *Guardian*, 5 June 2003, 2; 'China Crisis', *Guardian*, G2, 11 June 2003, 2.

¹⁸ Andrew Sherratt, 'Reviving the Grand Narrative: Archaeology and Long-Term Change', *Jl European Archaeol.*, iii (1995); Andrew and Susan Sherratt, 'From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems', in N. H. Gale (ed.), *Bronze Age Trade in the Mediterranean* (Studies in Mediterranean Archaeology, xc, Jonsered, 1991).

¹⁹ See Harvey Leibenstein, 'Bandwagon, Snob and Veblen Effects in the Theory of Consumer Demand', *Quart. Jl Econ.*, lxiv (1950), and Vance Packard, *The Hidden Persuaders* (London, 1957).

²⁰ N. F. R. Crafts, *British Economic Growth during the Industrial Revolution* (Oxford, 1985); Joel Mokyr, 'Demand vs. Supply in the Industrial Revolution', in Joel Mokyr (ed.), *The Economics of the Industrial Revolution* (London, 1985).

and economic policy in the early modern period. A world economy, perceived during the seventeenth and eighteenth centuries through a trade in luxuries and exotics, provided a significant source of innovation in technologies, products, marketing strategies and commercial and financial institutions. That world economy brought greater access to Asian consumer societies. Asian manufactured goods — silks and fine cottons, porcelain, ornamental bronze and brassware, lacquer, ivory and paper goods — became imported luxuries in Europe. These goods were special luxuries for Europeans: they were not the ancient or Persian luxuries of corruption and vice, the gold and rubies of the Indies. They were luxuries associated with a civilized way of life, appealing especially to the middling classes. These luxuries provided a demonstration effect to Europeans: what European merchants and manufacturers learned were lessons in diversity along with large-scale production, long-distance trade but high-volume marketing, fashion and taste in products which relied on lifestyle settings for their consumption.

Europe's contact with this particular type of Asian consumer good was debated by statesmen and intellectuals within the framework of a long-standing unease over the moral impact of luxury expenditure on statecraft and social structure, along with an ancient, suspicious fascination with the East. Anxieties over luxury extended from the ancient world to the modern, and were central to Asian as much as western moral and economic debate.²¹ Luxury as debated during the Enlightenment, however, was disentangled from its long association with corruption and vice, and transformed into an economic concept covering production, trade and the civilizing impact of superfluous commodities. Intellectuals and statesmen across Europe debated their specific national responses to luxury, and the capacity of their economies and social structures to produce and to absorb luxury goods. The terms of the debate shifted from vice and excess to comfort and convenience, enjoyment and sociability, taste and

²¹ For a fine discussion of the development of these concepts, see Guido Guerzoni, 'Liberalitas, Magnificentia, Splendor: The Classic Origins of Italian Renaissance Lifestyles', in Neil De Marchi and Craufurd D. W. Goodwin (eds.), *Economic Engagements with Art* (Durham, NC, and London, 1999).

aesthetics.²² International commerce and consumer goods provided a framework of endorsement for a new modern luxury as against the corrupting influences of ancient luxury.

Oriental Luxury

Anxieties over ancient luxury survived, however, and merged with new worries over 'oriental or Persian luxury', and more broadly over Asian luxury and the fabled riches of the East. There was a long history of associating the exotica of the Orient with the threat posed by Asian luxury in Europe. Livy argued that Rome had been contaminated with 'Asiatic luxuries', since by definition these were from Greece and the East, and had to be imported.²³ The presence of Roman troops in Asia Minor became a source of moral decline. The representation of Asia Minor was not just about its commodities, but about its inhabitants' lives, and it was constructed as a place of luxury. The lifestyle of the traditional Roman farmer was juxtaposed by Cato to luxury: his Italian herbs were morally superior to imported tropical spices.²⁴ The association of luxury with eastern exotics in Rome built on earlier traditions of debate in Greece about Persian luxury, and in the Mesopotamian and Iranian courts about Indian luxury. A close link was made by Latin and Greek writers between India and luxury goods, whether the goods came from India or not. 'To Roman consumers, the actual existence of so distant a place, directly visited by so few people of note, was far less important than its impact on the imagination'.²⁵

From Pliny onwards, arguments against eastern luxuries were predicated on the financial ruin of the West, as silver and gold flowed east to purchase the treasures of the Indies. François

²² John Robertson, 'The Enlightenment above National Context: Political Economy in Eighteenth-Century Scotland and Naples', *Hist. J.*, xl (1997), esp. 678–83, includes discussion of national responses to luxury. John Crowley connects the debate on luxury to concepts of comfort and convenience in 'The Sensibility of Comfort', *Amer. Hist. Rev.*, civ (1999); for other treatments, see the essays in Maxine Berg and Elizabeth Eger (eds.), *Luxury in the Eighteenth Century: Debates, Desires and Delectable Goods* (Basingstoke, 2003), and Michael Kwass, 'Ordering the World of Goods: Consumer Revolution and the Classification of Objects in Eighteenth-Century France', *Representations*, lxxxii (2003).

²³ See Christopher Berry, *The Idea of Luxury* (Cambridge, 1994), 74–84.

²⁴ Grant Parker, 'Ex Oriente Luxuria: Indian Commodities and Roman Experience', *Jl Econ. and Social Hist. of the Orient*, xlv (2002).

²⁵ *Ibid.*, 90.

Bernier, the seventeenth-century French orientalist, described India as the 'graveyard of gold and silver'.²⁶ Bernier's views formed a standard trope by the eighteenth century. Adam Anderson in the 1760s dedicated his *Historical and Chronological Deduction of the Origin of Commerce* to the Society for the Encouragement of Arts, Manufactures and Commerce. In it he compared Rome's fatal attraction to eastern luxury with the rise of the 'Britannic Empire' based on peaceful commerce in things 'useful and excellent . . . for the Ease, Conveniency, or Elegance of Life'. Julius Caesar's conquests, he argued, brought home the spoils of conquered provinces

more especially eastward, their proconsuls . . . were continually sending or bringing home immense riches, not only in coin, but also in gold and silver vessels, and diadems; in vases also, and fine statues, precious Stones, exquisite Paintings, and whatever else was rare and excellent, either for their Tables, or for Furniture, Cloathing, Equipages, Libraries, Buildings . . . At length, the Sloth, Luxury, and Effeminacy of the Emperors and People, and the great Neglect of military Discipline etc. brought upon the Roman Empire many barbarous Invaders . . . peaceful Commerce likewise suffered a long and almost total Suspension in the West; the Revival and Increase whereof, and of mercantile, nautical and manufactural Improvements, etc. will be the main Subject of the ensuing Work.²⁷

Like Bernier, he condemned the East Indies trade as 'a pernicious trade' which 'drains all of Europe of the silver which America brings to it'.²⁸

But a number of the goods associated with the exotic East were manufactured goods, such as fabrics, carpets, ceramics and furnishings, all endowed with intriguing colour, pattern and ornament. They were 'curiosities', prefabricated images of the East, crafted in the first instance for India's and China's Arab consumers. We have only relatively recently realized their significance for early modern Europeans. Though Europeans had a long acquaintance with oriental consumer goods, that commerce was to take on whole new dimensions with the extension of maritime trade and the founding of the East India Companies

²⁶ François Bernier, *Voyage dans l'Empire Moghol (1656–1668)*, cited in Michel Morineau, 'The Indian Challenge: Seventeenth to Eighteenth Centuries', in Sushil Chaudhury and Michel Morineau (eds.), *Merchants, Companies and Trade: Europe and Asia in the Early Modern Era* (Cambridge, 1999), 249.

²⁷ Adam Anderson, *An Historical and Chronological Deduction of the Origin of Commerce, from the Earliest Accounts to the Present Time: Containing an History of the Great Commercial Interests of the British Empire*, 2 vols. (London, 1764), i, 'Introduction', p. i.

²⁸ *Ibid.*, p. xxiii.

early in the seventeenth century. This was a trade which was to change the material culture of Europe, bringing with it new objects, colours, patterns and finishes.²⁹

The part played by luxury consumption may not have been exceptional to Europe. Indeed global historians debate levels of consumption and the role of superfluous commodities and exotica in China, India and Japan. At one level, this is another aspect of the debate on divergence, with the main focus given to the consumption of necessities and comforts by the labouring poor, that is, of food, textiles, fuel and housing.³⁰ While optimistic perspectives now prevail on levels of consumption even by relatively ordinary people, as well as on sophisticated cultures of discrimination and taste, many argue that Asia lacked the incentives which 'oriental luxury' provided to the West. There was no comparable treasure trove which the Chinese perceived they might retrieve in the West.³¹ Consumer society stopped short of attaining a critical mass in China, some historians argue, while in Europe the pace of change in fashion continued to accelerate. Similarly, in India there appears to be little evidence of the steady consumption of a middle level of fine goods for every noble or merchant house. The older nexus of luxury consumption in India was that of tribute-giving, gift exchange and royal collecting.³² Nevertheless, there is general agreement on sophisticated urban consumer cultures, providing for large commercial, professional and artisan groups as well as the elites. Highly developed fashion markets, consumer

²⁹ Edward Said, *Orientalism: Western Conceptions of the Orient* (Harmondsworth, 1991 [1978]); J. M. MacKenzie, *Orientalism: History, Theory and the Arts* (Manchester, 1995), 103; P. J. Marshall, 'Taming the Exotic: The British and India in the Seventeenth and Eighteenth Centuries', in G. S. Rousseau and Roy Porter (eds.), *Exoticism in the Enlightenment* (Manchester, 1990); Chandra Mukerji, *From Graven Images: Patterns of Modern Materialism* (New York, 1983).

³⁰ See Pomeranz, *Great Divergence*, 127–65; Huang, 'Development or Involvement in Eighteenth-Century Britain and China?', esp. 520–4; Pomeranz, 'Beyond the East–West Binary', esp. 566–71; Robert Brenner and Christopher Isett, 'England's Divergence from China's Yangzi Delta', *Jl Asian Studies*, lxi (2002), esp. 632–4.

³¹ Giovanni Arrighi, *The Long Twentieth Century: Money, Power and the Origins of our Times* (London, 1994), 35.

³² Pomeranz, *Great Divergence*, 153, 157–61; Kenneth Pomeranz, 'Re-Thinking the Late Imperial Chinese Economy: Development, Disaggregation and Decline circa 1730–1930', *Itinerario*, xxiv, 3–4 (2000), 33–5; S. A. M. Adshead, *Material Culture in Europe and China, 1400–1800* (London, 1997), 25–30, 100–1; C. A. Bayly, 'South Asia and the "Great Divergence"', *Itinerario*, xxiv, 3–4 (2000), 95; C. A. Bayly, "'Archaic" and "Modern" Globalization in the Eurasian and African Arena, c. 1750–1850', in Hopkins (ed.), *Globalization in World History*, 52.

sensibilities and a literature on luxury and taste were as much a part of these cultures as they were to be of Europe's.³³ The characteristics and wider economic impact of Asian consumer cultures remain an open question. By contrast, there is now no doubt that eastern luxury had a profound impact on European consumption.

In aggregate, imports from Asia looked small, but their most important characteristic was the increase in the numbers and in the types of commodities which were brought in not as prestige goods for collectors, but for steadily expanding markets.³⁴ The import trade in these goods provided an opportunity to develop a new scale of marketing for what came to be seen as semi-luxury ware — goods that were produced and traded in sufficient volumes to make them affordable to the middling classes. Some of these goods — particular foodstuffs, tea, coffee, chocolate, sugar, tobacco — were not just addictive, but were consumed in particular cultural sites; they were part of the 'revolution of sociability' which accompanied the 'industrious revolution'.³⁵

Manufactured imports from Asia formed part of this — the dress, vessels and furnishings which enhanced the material settings of this sociability: Indian and Chinese cottons, especially muslins and printed calicoes and silks, porcelain tea sets, lacquer cabinets, screens and tea tables, wallpapers and fans. Some of these goods on their transfer to Europe found consumer settings in new social practices of dress, display, and dining and drinking rituals associated with porcelain cabinets, taking tea, coffee-house culture, male drinking clubs and family

³³ Craig Clunas, 'Modernity Global and Local: Consumption and the Rise of the West', *Amer. Hist. Rev.*, civ (1999); Clunas, *Superfluous Things*, 12–33; Shelagh Vainker, 'Luxuries and Necessities in Early Modern China', in Berg and Eger (eds.), *Luxury in the Eighteenth Century*; Peter Burke, 'Res et Verba: Conspicuous Consumption in the Early Modern World', in Brewer and Porter (eds.), *Consumption and the World of Goods*. Chinese manuals of taste such as Gao Lian, *Eight Discourses on the Art of Living from the Studio where Elegance Is Valued* (1590) and Wang Zhenheng, *Treatise on Superfluous Things* (1615–20) are discussed by Clunas, *Superfluous Things*, 12–20; see also his chapter on 'Anxieties about Things'. For Japanese writings, see Saikaku Ihara, *This Scheming World* (Rutland, Vt., and Tokyo, 1965); Howard Hibbett, *The Floating World in Japanese Fiction* (Rutland, Vt., and Tokyo, 1959).

³⁴ Niels Steensgaard, 'Commodities, Bullion and Services in Intercontinental Transactions before 1750', in Hans Pohl (ed.), *The European Discovery of the World and its Economic Effects on Pre-Industrial Society, 1500–1800* (Stuttgart, 1990), 13–14.

³⁵ Bayly, "'Archaic' and "Modern" Globalization', 54.

dinner services. These formed part of the social psychology termed by Norbert Elias 'the civilizing process', that is, a precise observation of oneself and others within a longer series of motivations and causal connections. The concept described aristocratic and royal court rationality in the sixteenth century, but it also applied to the consumer culture of the middling classes in the eighteenth century.³⁶ The exotic provenance of these imports also made them into luxuries in Europe; physical distance from the place of production enhanced their value. They formed part of the early to mid eighteenth-century fashion for the rococo, and they were highly adaptable to the frequent design changes demanded by the European fashion system. Plates 1 and 2 show examples of popular Chinese and Indian imports from the late seventeenth and late eighteenth centuries, testifying to their long-standing appeal.

II

IMPORTS, IMITATION AND PRODUCTION

The special part played by the reception of Asian luxury goods into European markets reinforced global trade, and fostered consumer cultures. But the full significance of the interconnections between the global luxury trade and industrialization is to be found in production processes and in the characteristics of the commodities. These imported luxuries were to activate the invention of new production processes and new consumer goods in Britain.

Import Substitution

It was Britain's idiosyncratic response to her luxury imports from Asia that stimulated key transformations in the characteristics of consumer goods and the production processes developed to provide them. Discussion of the relationship between imports and industrial development often depicts it as 'import substitution': indeed the term is frequently applied to the early phases of manufacturing development in Britain, including that of the cotton industry.

³⁶ Grant McCracken, *Culture and Consumption* (Bloomington, 1988); Stephen Mennell, *Norbert Elias: Civilization and the Human Self-Image* (Oxford, 1989); Norbert Elias, *The Civilizing Process*, 2 vols. (Oxford, 1982).



1. Blue and white porcelain cup and saucer, Chinese, late seventeenth century; height 9 cm. Ashmolean Museum, cat. no. X1754. (By permission of the Ashmolean Museum, Oxford)

Historians referred in past decades to import substitution as a misguided policy based on mercantilist fallacies. Infant industries nurtured in the greenhouse of artificial trade barriers would never grow beyond the limits of high-income home markets. They would wither and die in the winds of international trade. More recently historians have claimed positive benefits. John Styles has attributed the growth of London's industries in the early modern period to 'import substitution'. Parthasarathi, O'Brien and Inikori have attributed Britain's industrialization in cotton, iron and metal wares to policies of tariff protection undertaken by the English then British state. Inikori sees these as import-substitution strategies parallel to those of newly developing countries today.³⁷

³⁷ John Styles, 'Product Innovation in Early Modern London', *Past and Present*, no. 168 (Aug. 2000); Parthasarathi, 'Great Divergence', 290–3; P. K. O'Brien, T. Griffiths and P. Hunt, 'Political Components of the Industrial Revolution: Parliament and the English Cotton Industry, 1660–1774', *Econ. Hist. Rev.*, xlv (1991); Joseph Inikori, *Africans and the Industrial Revolution* (Cambridge, 2002), 151, 449.



2. Open robe, printed Indian cotton, with pattern of multicoloured floral sprays overlaid with printed gold spots, English, 1780s. V&A Museum, CT86906. (By permission of the V&A Picture Library)

But import substitution is a misleading concept, and does not adequately capture the process of market development, both internal and external, and the dynamic interaction of product development and technological change that made the difference for Britain in the eighteenth century. The concept derives from models applied by development economists to less developed economies after the Second World War, and more recently in the export promotion policies of parts of Asia in the 1980s; there are major discrepancies between these models and vital characteristics of Britain's industrial development in the eighteenth century.

Import-substitution policies of the 1950s focused on protecting the domestic markets of developing countries from world imports of consumer goods; it was believed that manufacturing their own consumer goods for a national market would set these countries on the path of economic growth. Certainly predictions from many of the theories relied on assumptions of a 'closed economy', or conditions of industrial development without trade.³⁸ But failures of such 'import substitution' to generate any self-sustained growth and the economic distortions of state-protected high-cost industry with the attendant misuse of resources were widely recognized by the 1970s in the experiences of Brazil and India. The *World Development Report* of 1987 confirmed a new priority of export-oriented growth based on the experiences of Korea and Taiwan. There, industries focused on world markets, and bolstered by state incentives appeared to offer new models of export-led growth.³⁹ Neither theory, however, connected the consumer or export industries it dwelt on to the wider historical development of the capital infrastructures of the economies concerned.⁴⁰ The distinctive characteristics of

³⁸ H. J. Bruton, 'A Reconsideration of Import Substitution', *Jl Econ. Lit.*, xxxvi (1998), esp. 908–17; H. J. Bruton, 'Import Substitution', in Hollis Chenery and T. N. Srinivasan (eds.), *Handbook of Development Economics*, ii (Amsterdam and Oxford, 1989), esp. 1604–5.

³⁹ Ray Kiely, *Industrialization and Development: A Comparative Analysis* (London, 1998), 97–114; also see Stephan Haggard, *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries* (Ithaca and London, 1990), 1–22. For a leading exponent of export-led industrialization, see Bela Balassa, *New Directions in the World Economy* (Basingstoke, 1989), 14–27.

⁴⁰ A. O. Hirschman, 'The Political Economy of Import Substituting Industrialization in Latin America', *Quart. Jl Econ.*, lxxxii (1968); Bruton, 'Reconsideration of Import Substitution', 922. But see Hirschman's reflections on the failure of the 'development project' in his 'The Rise and Decline of Development Economics', in A. O. Hirschman, *Essays in Trespassing: Economics to Politics and Beyond* (Cambridge, 1981), 1–24.

Britain's development in the eighteenth century were the growth of domestic *and* international markets for consumer goods, and the exploitation of knowledge and learning which contributed to technological progress.

Historians looking for new perspectives on the part played by global trade in Britain's industrialization have, nevertheless, applied the concepts of 'import substitution' or 'export-led growth' without close reference to the market and technologies. Static conceptions of a domestic market to be supplied from within rather than from the international marketplace need to be assessed alongside more dynamic possibilities.⁴¹ Imports also played a positive part in stimulating a dynamic development of domestic consumption: an 'industrious revolution' fostered by new desires for non-traditional goods, and by the experience of goods from outside the region, that is imports, changed consumer horizons and family behaviour.⁴² Equally, applying simple models of export promotion has led to a revival of histories of the Industrial Revolution as imperial domination.⁴³ These explanations take us only so far: they leave unexplored the stimulation of learning and knowledge offered by global interconnections, that is, learning desires for new goods through the experience of importing, and learning skills and understanding materials in responding to imports.

Imports play their part in transforming knowledge. Development economists now argue that many import-substitution policies failed because they created an environment that discouraged learning; export-oriented growth likewise neglected tacit knowledge and learning 'by doing' and using. The economies based on these strategies were often enclaves separated off from wider national capital formation and technology. Such knowledge accumulation relies on conditions that are dependent on the basic characteristics of a society; exports and domestic

⁴¹ See Styles's argument that supplying London's domestic consumers with home-produced goods on a par with those of Paris and Amsterdam was the great achievement of seventeenth- and early eighteenth-century tariffs: 'Product Innovation', 128-30.

⁴² This key point was made by Jan de Vries in 'Between Purchasing Power and the World of Goods'.

⁴³ See Inikori, *Africans and the Industrial Revolution*, 151, 449. He claims that the opportunities offered by the domestic market in the later eighteenth century were too limited; Britain's major 'import substitution' industries, cotton and metals, relied from the start on sales to overseas markets.

learning must interact. Thus more recent policies have focused on the promotion of research and development.⁴⁴

The widespread import of Asian goods into Europe from the later seventeenth century coincided with a phase of intense public interest in technology — what might be called ‘useful knowledge’. Dense information networks which fostered consumerism and spread fashions must be placed beside the adaptable knowledge communities that could change materials and their applications, adapt designs and envisage the technical developments that would break through traditional processes.⁴⁵ A European-wide ‘industrial enlightenment’ brought extensive circulation of codified knowledge, but equally a consciousness of the significance of ‘tacit knowledge’ and implicit skills.⁴⁶ Physical contact with the imported good prompted speculation on how it was made and fostered experimentation with materials. A process of analysing the foreign manufacturing technique was simultaneously a process of dissection, experimentation and adaptation of skills honed to other purposes. Imports provided a challenge to indigenous learning, breaking down boundaries between skills, making possible the new technologies said to have developed in the wake of import substitution. Certainly Asian goods and their technologies provided new challenges, perceived at the time to be quite distinct from those posed by earlier European imports. For example, the knowledge of the Chinese porcelain repairman was thus paralleled by that of the English china-riveter (Plates 3 and 4).

Asian Export Ware

Let us now turn in more detail to the characteristics of Asian export goods and their production processes. Just what could Europe learn from these? The special feature that distinguished Asian manufacture was world-class production of fine but affordable consumer ware, marked by diversity, taste and fashion, and produced and traded throughout Asia on a scale

⁴⁴ Bruton, ‘Reconsideration of Import Substitution’, 903, 929–30; Alice Amsden, *The Rise of “the Rest”: Challenges to the West from Late-Industrializing Economies* (Oxford, 2001), 277–83.

⁴⁵ See Styles, ‘Product Innovation’, 129, 167.

⁴⁶ See Joel Mokyr, *The Gifts of Athena: The Historical Origins of the Knowledge Economy* (Princeton, 2002), 34–74; Larry Stewart, ‘A Meaning for Machines: Modernity, Utility, and the Eighteenth-Century British Public’, *Jl Mod. Hist.*, lxx (1998).

not previously encountered in Europe. These Asian goods boast all the qualities that European historians have previously argued were created first in world history in the eighteenth- and nineteenth-century industrial revolutions in Britain and France. Some of these goods, especially types of ceramics, silks and calicoes, could be functional and routine parts of everyday life in India and China, but equally, at a higher range of qualities, could be prized as objects of art. Certainly these were exotics in Europe, but more significantly, their diversity of quality and design, combined with their high-volume production and their long traditions as export ware as well as domestic consumables, made them into very special transformative luxuries to Europeans. Some of these goods, especially printed and painted calicoes and Chinese and Japanese porcelain, were unique to Asia, yet were produced in an unaccountable range of qualities and designs, and in volumes unprecedented in Europe. The pre-existing pan-Asian trade in these goods that European traders came upon was already extensive, provided for enormously varied demands and styles from the Philippines to Africa, and relied on sophisticated trade and financial networks.

Overall levels of trade between Asia and Europe, and between various regions of Asia, are difficult to estimate not only because of the problems of measuring the trade of private merchants, but also because of the re-export trade among these regions.⁴⁷ One study comparing levels of intra-Asian trade with those of Asian trade to Europe investigates Chinese ceramic exports in the seventeenth century. In the first half of the century only 16 per cent of Chinese ceramics were exported directly to Europe; exports to South Seas markets including India, South East Asia and the Middle East accounted for 60 per cent, and exports to Japan for 23 per cent.⁴⁸ These exports included a large proportion of low-priced coarse wares as well as medium-quality wares going to South Seas markets, with India and Japan taking most of the medium-quality wares. Exports to Europe, though a small

⁴⁷ M. N. Pearson, 'Merchants and States', in James D. Tracy (ed.), *The Political Economy of Merchant Empires: State Power and World Trade, 1350-1750* (Cambridge, 1991), esp. 105-7; Sanjay Subrahmanyam and Luís Filipe F. R. Thomaz, 'Evolution of Empire: The Portuguese in the Indian Ocean during the Sixteenth Century', in Tracy (ed.), *Political Economy of Merchant Empires*, esp. 314-18.

⁴⁸ C. Ho, 'The Ceramic Trade in Asia, 1602-82', in A. J. H. Latham and H. Kawakatsu (eds.), *Japanese Industrialization and the Asian Economy* (London, 1994), esp. 36-49.



3. Watercolour of a Chinese porcelain repairman. From fo. 789 of a bound volume of sixty watercolours and manuscript (1798) for George Henry Mason's *Costume of China* (London, 1800). Ashmolean Museum. (By permission of the Ashmolean Museum, Oxford)

proportion of the total trade at the time, were mainly of higher-quality goods, and accounted for 50 per cent of the value of Chinese ceramic exports.⁴⁹ The textiles and ceramics exported from Asia were made up and embellished in Europe to fit with dress styles and drinking cultures, as illustrated by the hand-painted frock shown in Plate 5 and the beer mug with a silver mount shown in Plate 6.

Representations and Technologies

Historians' perceptions of these commodities have until quite recently hidden the significance of their attributes. Many historians have repeated the statements made about the Chinese after the Macartney Expedition in 1792.⁵⁰ Macartney's diary reported a political system whose aim was 'to persuade the

⁴⁹ *Ibid.*, 39. Cf. the export trade of the eighteenth century in luxury goods intended for western markets from China and Japan to Indian ports. See Amin Jaffer, *Furniture from British India and Ceylon* (London, 2001), 89–95.

⁵⁰ J. A. G. Roberts, *China through Western Eyes* (Stroud, 1991), 1–22; Colin Mackerras, *Western Images of China* (Oxford, 1989), 1–65.

Edmund Morris,
China-Rivetter,
at the China Fair, in Grays Inn Passage,
coming into Red Lyon Square Holbourn,
London.

Sells all Sorts of China Wares with
a Peculiar Art, which was never before
found out in this Kingdom; so as a Riveted
Piece of China will do as much Service
as when New; as there are many Impostors
both in Town & Country that make
false Pretentions, I Desire no other
Satisfaction than what the Workman-
ship Merits. N.B. if any of my Work
Should come to Pieces, within
Twenty or Thirty Years,
I will Repair it, without any
Further Expence.

4. Advertising handbill for Edmund Morris, 'China-Rivetter', c.1770. British Museum, Banks 37.11. (© The Trustees of the British Museum)

people that they are themselves already perfect and can therefore learn nothing from others'. He reiterated the standard view of China by this time as a static empire going into decline. 'A nation that does not advance must retrograde, and finally fall back to barbarism and misery'.⁵¹ These statements conveyed the notion of a country with little interest in western science and technology, or the wider world, and of a traditional class-bound society.⁵² Chinese and European historians in recent decades have commented on the failure of the Chinese to advance the technologies they had developed up to the fourteenth century, and especially to respond to and adopt outside (western) technologies. Elvin explained China's aborted inventiveness with a 'high level equilibrium trap'. Jones praised Chinese technological precocity from which the Chinese turned aside in favour of internal colonization: 'contractual legalism never replaced statist morality'. Likewise, Mokyr identified a turning away from technological change when the state lost interest in promoting it. Landes found a regime of technological and scientific inertia caused by rejection of foreign technology and a lack of social institutions that would have encouraged a cumulative process of learning.⁵³

While debate on levels and paths of technological change in China has reopened, the question that is never asked is why Chinese and Indian technologies were not transferred to Europe.⁵⁴ Such a question may seem absurd, so clear is our historical certainty of the technological stagnation of China by the eighteenth century. Yet Chinese and Indian manufactured commodities were imported on a significant scale, and sought out by merchants and consumers for their quality, diversity,

⁵¹ Mackerras, *Western Images of China*, 44.

⁵² Joanna Waley-Cohen, 'China and Western Technology in the Late Eighteenth Century', in Michael Adas (ed.), *Technology and European Overseas Enterprise* (Aldershot, 1996). See E. L. Jones's response to these images of static technologies in his 'Patterns of Growth in History', in John A. James and Mark Thomas (eds.), *Capitalism in Context: Essays on Economic Development and Cultural Change in Honor of R. M. Hartzwell* (Chicago, 1994).

⁵³ Mark Elvin, *The Pattern of the Chinese Past* (London, 1973), 179–99; E. L. Jones, *The European Miracle: Environments, Economies and Geopolitics in the History of Europe and Asia* (Cambridge, 1981), 202–22; Joel Mokyr, *The Lever of Riches: Technological Creativity and Economic Progress* (Oxford, 1990), 209–38; David Landes, 'East is East and West is West', in Maxine Berg and Kristine Bruland (eds.), *Technological Revolutions in Europe: Historical Perspectives* (Cheltenham, 1998), 19–38.

⁵⁴ Pomeranz, *Great Divergence*, 43–60.



5. Frock of cotton, hand-painted in India, made up in Europe, eighteenth century. From George Baker, *Calico Painting and Printing in the East Indies* (London, 1921), pl. 22 (detail C). Bodleian Library, shelfmark 170083 a.1. (By permission of Hodder Arnold and the Bodleian Library, University of Oxford)

design and adaptability to market and fashion changes, and all of this at affordable prices. We need to look more closely at the way production processes were represented and passed on to become European preconceptions. The oriental order of things

was associated with artisans and husbandmen living in perpetual misery which allowed the merchant, the prince and the nobleman a luxurious living built on the fruits of their labour. Max Weber described oriental merchants as mere pedlars, colporteurs and small fry, and contrasted them with western traders who had intelligence, money, a spirit of enterprise and an aptitude for success.⁵⁵ Parthasarathi, in the pages of this journal, pointed out the implications of recognizing this orientalist bias, not just for the history of Asia, but for that of Europe. He posed the British revolution in cotton textiles as a response to India's dynamism in world markets for these consumer goods.⁵⁶ That response, however, was based not just on the recently recognized competitive achievements of Indian and Chinese producers, but on European perceptions of products and processes.

The major source for discovering more about Asian commodities comes with its own biases. The great European trading companies have left admirably preserved sets of records, in contrast to the private accounts of Indian merchants, where little regard was given to keeping them beyond a voyage or transaction, far less beyond the life of the individual businessman. It is the perennial problem of the patchiness of business records. These records of the trading companies are in many cases our only source of information on practices and processes, and by their nature they conveyed the impression that Europeans were the dynamic actors in the Asian trade.⁵⁷ The biases in our perceptions of the commodities and the trade in them are continued in the literature of the slave trade. Anti-slave-trade campaigners from the early nineteenth century in Europe wanted to show that Africa received only trinkets, guns and alcohol in return for slaves. But Indian textiles and metal wares were major players in a trading complex that was not just triangular, but global. Imports to the Senegambia in the 1730s were made up of 21.0 per cent metals, 18.5 per cent Indian

⁵⁵ Michel Morineau, 'Eastern and Western Merchants from the Sixteenth to the Eighteenth Centuries', in Chaudhury and Morineau (eds.), *Merchants, Companies and Trade*, 136.

⁵⁶ Prasannan Parthasarathi, 'Rethinking Wages and Competitiveness in the Eighteenth Century: Britain and South India', *Past and Present*, no. 158 (Feb. 1998), 105-7.

⁵⁷ Philip D. Curtin, *Cross-Cultural Trade in World History* (Cambridge, 1984), 154.



6. Cylindrical beer mug with handle, blue and white decoration, silver mount, Chinese, c.1670; height 23 cm. Ashmolean Museum, cat. no. 1978.801. (By permission of the Ashmolean Museum, Oxford)

textiles, 9.7 per cent European textiles, and only 5.6 per cent firearms and another 4.0 per cent gunpowder.⁵⁸

Many of the accounts of the production of Indian calicoes and Chinese porcelain convey images of processes steeped in tradition, hereditary transmission and, in India, division of labour, process and product by caste and district, as well as by gender and age.⁵⁹ Yet in spite of all these biases, the company records suggest that western traders knew enough about these commodities for them to have had a demonstration effect on European taste, technology and trade.

Printed calicoes provide a first example. Here it is very difficult to break through the layers of theories of oriental despotism in the descriptions of production processes. Orme, in his *Historical Fragments of the Mogul Empire* (1783), described processes thus:

The women likewise spin the thread designed for the cloths, and then deliver it to the men, who have fingers to model it as exquisitely as these have prepared it... The rigid, clumsy fingers of a European would scarcely be able to make a piece of canvass, with instruments which are all that an Indian employs in making a piece of cambric. It is farther remarkable, that every distinct kind of cloth is the produce of a particular district, in which the fabric has been transmitted, perhaps for centuries, from father to son, a custom which must have conducted to the perfection of the manufacture.⁶⁰

In 1742 the French Jesuit missionary Father Gaston Cœur-doux described the processes in similar terms as a division of labour by locality, caste, gender and age. He depicted the cotton painters of South and West India as low-caste Hindus working on a joint-family basis. Each joint family might specialize in one part of the manufacturing process, and in turn subcontract out to those of lower rank. One family might draw the designs, another do the mordanting and a third the waxing. The drawing of the outlines on the cloth and the application of the mordant were 'done by little children as well as older, they

⁵⁸ Philip D. Curtin, *The Rise and Fall of the Plantation Complex: Essays in Atlantic History* (Cambridge, 1990), 135.

⁵⁹ Chaudhuri cites the Dutch observers of Mughal India, Havart and Pelsaert, who described Indian chintz painters as being 'like snails which creep on and appear not to advance', and who imitated but could not design for themselves. These observers, he points out, were oblivious to craft production and commercial capital. See K. N. Chaudhuri, *Asia before Europe: Economy and Civilisation of the Indian Ocean from the Rise of Islam to 1750* (Cambridge, 1990), 302–3.

⁶⁰ Chaudhuri, *Asia before Europe*, 298.

stretching the piece on the ground, and sitting upon them, run over them with a dexterity and exactness peculiar to themselves'.⁶¹ The representations in these accounts of the hereditary and static nature of the work process, combined with the degradation of the workforce, are somewhat at odds with the capacity of the workforce to respond to the levels of demand and absorb the variety of designs across the Asian trade, and subsequently for the European trade.⁶² Recent research also indicates labour shortages among weavers. Labour disputes and migration of the Gujarati villagers in the face of harsh treatment add to evidence that wages were much higher than the impression given by European observers. Indeed it now seems likely that relative earnings, working conditions and financial security among Indian calico weavers compared favourably with those of English weavers.⁶³

Chaudhuri and Bayly have described the co-ordination of these textile producers through many levels of network and merchant, based on an advance contract system and sophisticated credit and information flows. The output and adaptability of the systems were proverbial; textiles, and predominantly these cottons, made up 80.6 per cent of the value of the East India Company's Asian imports into Britain in 1738–40.⁶⁴ Observers commented on the ease with which Indian producers accommodated to European tastes, adapting alien colour

⁶¹ John Irwin and K. B. Brett, *Origins of Chintz* (London, 1970), 8. Cœurduoux's account was conveyed in Jean Ryhiner's *Traité sur la fabrication et le commerce des toiles peintes*, written in 1766 but not published until 1865: see Irwin and Brett, *Origins of Chintz*, appendix B, 'Father Cœurduoux's letters on the technique of Indian cotton-painting, 1742 and 1747', with introduction and commentary by P. R. Schwartz.

⁶² This adaptability is discussed in A. Dasgupta, 'Indian Merchants and the Trade in the Indian Ocean', in T. Raychaudhuri and I. Habib (eds.), *The Cambridge Economic History of India*, i (Cambridge, 1982); and K. N. Chaudhuri, *The Trading World of Asia and the English East India Company, 1660–1760* (Cambridge, 1978), 291, 296; K. N. Chaudhuri, 'European Trade with India', in Raychaudhuri and Habib (eds.), *Cambridge Economic History of India*, i, 388. On the response to French markets, see Michel Morineau, 'The Indian Challenge: Seventeenth to Eighteenth Centuries', in Chaudhuri and Morineau (eds.), *Merchants, Companies and Trade*, esp. 255–7.

⁶³ K. N. Chaudhuri, 'The Structure of the Indian Textile Industry in the Seventeenth and Eighteenth Centuries', in Adas (ed.), *Technology and European Overseas Enterprise*, 354, 360, 388; Parthasarathi, 'Rethinking Wages', 89, 103, 109.

⁶⁴ Chaudhuri, *Trading World of Asia*, 96; Chaudhuri, 'European Trade with India', 401; C. A. Bayly, *Rulers, Townsmen and Bazaars: North Indian Society in the Age of British Expansion, 1770–1870* (Cambridge, 1983), 60–3, 145–8.

schemes and flora derived from pattern books or musters sent from England, Holland and France. Adaptive imitation was preferred by the Court of Directors of the East India Company.⁶⁵

We send you some patterns, which may govern you so far as to see thereby that we want some new Works . . . endeavour to send us every year New Patterns, as well of the Flowers as Stripes, at least five or six in a bale, and let the Indians Work their own Fancys, which is always preferable before any Patterns we can send from Europe.⁶⁶

The production process was not considered to be transferable, though the few accounts that were left by Europeans of such processes reveal an intense curiosity. Detailed descriptions of printing, painting and dyeing processes were made as early as 1734 by Antoine de Beaulieu, a French naval officer, and in 1742 by Cœurdoux.⁶⁷ Beaulieu chose the method of having a painted cotton fabricated before his eyes, and then wrote down what he thought was happening. Cœurdoux, who lived in Pondicherry and spoke the local languages, Tamil and Telugu, chose the method of questioning a number of the painters he had converted to Catholicism. He hoped his descriptions would assist European manufacture: 'I do not know whether the letter I wrote in 1742 on painted cottons in India can prove of any assistance in perfecting the art of dyeing in Europe: that at least was the aim I had in mind'. But he certainly felt his interest to be relatively rare: 'It is surprising that, so far, there should not have been in this country any European interested in the matter, endeavouring to enrich his own country with an art from which so much advantage could be drawn'.⁶⁸

⁶⁵ The most detailed account of the trade, production processes and responses to European markets is provided in John Irwin and P. R. Schwartz, *Studies in Indo-European Textile History* (Ahmedabad, 1966), 8–56. The point is made in Beverly Lemire, *Fashion's Favourite: The Cotton Trade and the Consumer in Britain, 1660–1800* (Oxford, 1991), 18. Also see Chaudhuri, *Trading World of Asia*, 282; A. W. Douglas, 'Cotton Textiles in England: The East India Company's Attempt to Exploit Developments in Fashion, 1660–1721', *Jl Brit. Studies*, viii (1969); Styles, 'Product Innovation', 125–31, 134–5.

⁶⁶ Cited in Chaudhuri, *Asia before Europe*, 303. See also Styles, 'Product Innovation', 135–6.

⁶⁷ Beaulieu's description was set out in M. Q*** [Chevalier de Quarellles], *Traité sur les toiles peintes: dans lequel on voit la manière dont on les fabrique aux Indes, & en Europe* (Paris, 1760); see Irwin and Brett, *Origins of Chintz*, appendix A: 'Beaulieu's account of the technique of Indian cotton-painting, c.1734', with introduction and commentary by P. R. Schwartz, 36.

⁶⁸ Irwin and Brett, *Origins of Chintz*, 43, 51; cf. G. P. Baker, *Calico Printing and Painting in the East Indies in the Seventeenth and Eighteenth Centuries* (London, 1921).

The reports of Cœurdoux and Beaulieu seem to have reached European textile printers one or two decades later through some non-specialist articles and a treatise on textile dyeing and printing, and via the first specialist account by a textile manufacturer, written in Basle by Jean Ryhiner.⁶⁹ By this time the superior colour-fast dyes, prints and painting of the Indian fabrics were attributed to the innate and inherited empirical abilities of the workforce, and to the water. Ryhiner commented:

Our theory and principles are almost the same as those of the Indians, but the latter have the advantages of possessing certain herbs which are more suitable for this method of manufacture; it would also seem that manpower is more readily available in that country because the use of painting instead of printing demands a greater degree of skill and is much slower, which means that even granted all things equal we could never adopt their methods, for we lack skilled craftsmen and could not keep the maintenance costs so low.

Father Cœurdoux also argued that ‘it would seem that the Author of Nature, as a set-off against other advantages which Europe enjoys, has granted India ingredients, and, above all, certain waters, whose particular qualities have much to do with the beautiful combination of painting and dyeing represented by Indian cloths’.⁷⁰

These views were also standard in English accounts. The entry on ‘Callicoe’ in the second edition of Postlethwayt’s *Universal Dictionary* of 1757 claimed the best calicoes were made in Seconge:

those made at Seconge grow the fairer, the more you wash them. This is said to arise from a peculiar virtue of the river that runs by the city, when the rain falls; for the workmen, having made such prints upon their cottons as the foreign merchants give them, by several patterns, dip them into the river often, and that so fixes the colours that they will always hold.⁷¹

Though the writer of the entry suspected that the Indians used a metallic solution for their ‘fine, bright and durable colours’, and advised British dyers to experiment with metal solutions,

⁶⁹ See nn. 61 and 67 above. A series of articles on the method of painting cottons in India in the June, July, August and September numbers of the *Journal économique* for 1756 bears close similarities to Beaulieu’s account and may have been based on it. See Irwin and Brett, *Origins of Chintz*, 36, 44. The first English account was by the botanist William Roxburgh in his *Plants of the Coromandel Coast* (London, 1795). Part of this, describing cotton dyeing and printing, is given in Irwin and Brett, *Origins of Chintz*, appendix C, ‘The Roxburgh account of Indian cotton-painting, 1795’, by P. R. Schwartz.

⁷⁰ Cited in Irwin and Brett, *Origins of Chintz*, 44, 45.

⁷¹ Malachy Postlethwayt, *The Universal Dictionary of Trade and Commerce*, 2nd edn, 2 vols. (London, 1757), i, s.v. ‘Callicoe’.

there appears to have been no systematic attempt to transfer these dyeing and printing technologies. Instead, as we shall see, separate technologies were devised in Europe to substitute for what were perceived to be Asian empirical advantage, labour intensity and nature. These new European technologies developed through closely integrated groups of dyers and colourists relying on indigenous traditions and European-wide networks of knowledge, but not on either chemical theory or, it seems, writings on extra-European processes.⁷²

The Jesuits, in particular, were well known as conduits of knowledge of Asian goods and technologies. A merchant selling exotic goods could exploit this association by adroit juxtaposition of the name of St Ignatius with the allure of oriental goods; the advertising trade card shown in Plate 7 sets out the connections.

The production processes of Chinese and Japanese porcelain were even more mysterious and exotic than those of textiles, and the consumer impact on Europeans at least as powerful. Long before the onset of significant trade with Europe, Chinese producers were famed for the ingenuity of their technology and scale of their operations. The kiln technologies developed as far back as the Han period (206 BC–AD 220) surpassed European techniques until the nineteenth century. By the Song period multi-chamber ‘dragon kilns’ stretched up hillsides as much as sixty metres. They could fire more than fifty thousand pieces at a time over several days. They also provided for temperature differences of as much as 600°C between the firebox in the lower area and the chimney in the upper, so that in a single operation a whole range of wares could be produced, from high-fired porcelain in the lower chambers to earthenware in the top.⁷³ The furnaces as described in the eighteenth century could be relatively small and made of iron, or extremely large and made of earth. ‘They are two fathoms high, and almost four fathoms broad’.⁷⁴ There was also an organizational system of

⁷² Robert Fox, ‘Science, Practice and Innovation in the Age of Natural Dyes, 1750–1860’, in Berg and Bruland (eds.), *Technological Revolutions in Europe*.

⁷³ Elvin, *Pattern of the Chinese Past*, 285; M. Finlay, ‘The Pilgrim Art: The Culture of Porcelain in World History’, *Jl World Hist.*, ix (1998), 148, 156.

⁷⁴ Postlethwayt, *Universal Dictionary*, ii, s.v. ‘Porcelain’. Postlethwayt provides a contemporary description of the business organization of the kilns based on the accounts of the Jesuit Father d’Entrecolles. See also Margaret Medley, *The Chinese Potter: A Practical History of Chinese Ceramics* (London, 1989), 171, 241–2, and Lothar Ledderose, *Ten Thousand Things: Module and Mass Production in Chinese Art* (Princeton, 2000), 98–101.



7. 'At the sign of St Ignatius: a shop selling goods of all sorts, wholesale and retail'. The verse at the foot exhorts: 'Gentlemen, stop letting the old ways govern your taste. At St Ignatius we sell everything: here are merchants *à la mode*'. Luxuries on display include a bag of amber (top left), a bolt of Persian silk being examined for quality, bales of sugar and indigo (right), and gold and silver braid and lace (shelves far right); a Jesuit is counting coins at the right-hand counter. A pharmacy on the left illustrates the trade in medicinal goods. From a bound collection of trade cards, 'Recueil d'adresses', vol. ii, fo. 49: Waddesdon Manor, TC1919, photographed by Mike Fear. (By permission of Waddesdon Manor, the Rothschild Collection — The National Trust)

shared or part ownership practised over many of the kilns; alternatively, producers could hire access to the kilns for firing a batch of pottery.

In the case of porcelain, this economic capacity combined with flexibility went with a technology, the porcelain recipe, that the West was yet to understand, and was unable to reproduce even minimally until early in the eighteenth century, and in any quantity until later in that century. Just as in the case of printed calicoes, production of porcelain for Europe was added to that for markets within Asia. Production in this case too had been honed to meet diverse tastes across social, religious and national groups from the Middle East to Japan.

There was, nevertheless, a demand shock when Europeans entered the trade. The Dutch traded a million pieces of porcelain at the end of the seventeenth century, and the Dutch East India Company imported forty-three million pieces from the beginning of the seventeenth century to the end of the eighteenth century. The English, French, Swedish and Danish Companies shipped another thirty million.⁷⁵ At the beginning of the eighteenth century porcelain accounted for 13.3 per cent of East India Company imports, comparing reasonably with silk at 19.0 per cent.⁷⁶ Over this period, China shifted from a more broadly based consumer goods trade to one based on silk and tea. The axis of trade shifted from the south to the north, and from the interior to the coast. This was accompanied by a shift in population.⁷⁷ The porcelain city Jingdezhen was rebuilt in the later seventeenth century, and its factories and workshops were reorganized and increased in size and productivity. Factories were departmentalized even down to a high degree of division of labour in the decorating studios. Painters specialized in particular motifs, flowers, birds and animals or mountains and rivers, and no one piece of porcelain was a personal creation. The city was said to have a million people, eight hundred kilns and three to four thousand factories.⁷⁸

⁷⁵ Finlay, 'Pilgrim Art', 168.

⁷⁶ Data taken from Chaudhuri, *Trading World of Asia*, appendix 5, table C.8; H. B. Morse, *The Chronicles of the East India Company Trading to China, 1635-1834*, 5 vols. (Oxford, 1929), v, 168.

⁷⁷ Gang Deng, *Chinese Maritime Activities*, 113; Kent Deng, 'A Critical Survey of Recent Research in Chinese Economic History', *Econ. Hist. Rev.*, liii (2000), 3-4, 13; Pomeranz, *Great Divergence*, 63-6, 138-9.

⁷⁸ D. F. Lunsingh Scheurleer, *Chinese Export Porcelain* (London, 1974), 24-8.

Nathaniel Torriano, Supercargo

We can follow the course of trade through the example of one English merchant and supercargo, Nathaniel Torriano. The extensive accounts of the merchant family for the period between 1697 and 1736 were left in Chancery after an extended lawsuit.⁷⁹ Torriano made two trips to Canton in 1718 and 1721–2, and another two trips in 1727 and 1730–1. In 1721 and 1727 he was Chief of Council at Canton. On most of these occasions he travelled with a group of ships, though in 1727 he went with only one ship, and acted frequently as chief supercargo. He died at Batavia during the last voyage.⁸⁰ As a supercargo, Torriano's role was to act as a manager of the enterprise, and as go-between for the East India Company — to conduct all negotiations with Chinese officials and mandarins, and to contract with the Chinese merchants. In return he received his share of a commission of 4–5 per cent on the cargoes bought in China, and considerable private trade. This private, or personal, trade, encouraged by the East India Companies as an incentive to ships' officers and crews to undertake lengthy voyages and expose themselves to dangers, allowed them to import a whole range of luxury goods, including tea, silk, gold and silver. This was the main means of importing a wide range of manufactured goods, including lacquerware, fans, painted glass, paper, mats, clay images and ornaments, as well as most decorative and armorial chinaware.⁸¹ On his last voyage in 1731, Torriano, like the other captains, was allowed thirteen tons' space on board for his private trade, and permission for £2,500 to be invested in gold. The capital he invested was £5,200, and had he lived to return to London, he stood to realize a profit of £7,000.⁸²

If we follow the shipping records of Torriano's first voyage, we enter a microcosm of the world of the luxury trade with Asia. Torriano sailed on an East India Company ship from Portsmouth in January 1718; as a supercargo he left a separate reckoning for his private trade. He arrived in Batavia on 4 June, where he bought consignments of calicoes, then sailed on to

⁷⁹ See National Archives, London, Public Record Office (hereafter PRO), Chancery Masters Exhibits, C 112.24, Torriano.

⁸⁰ Morse, *Chronicles*, 1, 165, 183, 201.

⁸¹ For more on this, see Chaudhuri, *Trading World of Asia*, 287; C. L. Jorg, *Porcelain and the Dutch China Trade* (The Hague, 1982), 102–8; G. A. Godden, *Oriental Export Market Porcelain and its Influence on European Wares* (London, 1979), 59, 78.

⁸² Morse, *Chronicles*, 1, 207.

Canton to arrive on 20 August. He was soon in touch with the celebrated Hong merchant Pinkey Chougua, and placed a number of orders. On 18 November he paid £32. 12s. 2d. for a total of 4,720 different coloured plates and punch bowls with gold rims, cups and saucers, and chocolate cups. He went on several shopping trips with Chougua in the next few days, spending another £7. 14s. 8d. on the first day on lacquered ware for tea tables, hand tables, sweetmeat tables, and card tables, and on silk and taffeta. This was followed by expenditure over the next two days of another £50 on silk, embroidery and tea, and another two thousand plates, jars and chocolate cups.

Torriano set sail for home on 22 January 1719, stopped at the Cape on 29 March and St Helena on 18 April, finally arriving in London on 14 July. His accounts for the whole year afterwards detail the individuals to whom he sold the lots of china, silk and lacquerware. He sold his last lot of a dozen and a half plates on 23 July 1720 to a Mrs Curtis, probably a china dealer, for £1. 13s. Torriano's story was one amongst hundreds over the course of the eighteenth and beginning of the nineteenth centuries. Annual cargoes amounted to hundreds of thousands of items, and six to eight hundred tons (Plate 8).⁸³

Learning from Asia: Craft or Industry

In the case of porcelain, too, there was no direct copy of the technology by Europe. There was much less access to knowledge than in the case of Indian calico printing. The porcelain city, far inland from the Canton warehouses where the Europeans traded, was, however, seen and described by Father François Xavier d'Entrecolles in the early eighteenth century. His detailed descriptions of the kilns and the work process passed into Europe's celebrated commercial dictionaries, Savary's *Dictionnaire universel de commerce*, Postlethwayt's *Universal Dictionary*, and the *Encyclopédie*.⁸⁴ Again, contemporary accounts in Europe

⁸³ For a similarly detailed account of these voyages, see PRO, Chancery Masters Exhibits, C 108.133, Records of the Bonita, Cooke Papers. Other accounts are set out in Godden, *Oriental Export Market Porcelain*, 78, 95–104. A masterly account of the Dutch trade can be found in Jorg, *Porcelain and the Dutch China Trade*, 102–9.

⁸⁴ See the entries for 'porcelain' in Jacques Savary des Bruslons, *Dictionnaire universel de commerce, d'histoire naturelle et des arts et métiers*, new edn, 5 vols. (Copenhagen, 1759–65); Postlethwayt, *Universal Dictionary*, ii; Denis Diderot and Jean Le Rond d'Alembert (eds.), *Encyclopédie: ou, Dictionnaire raisonné des sciences, des arts, et des métiers* (Paris, 1751–65).



8. Ginger jar, Chinese, early nineteenth century; height 37 cm. Ashmolean Museum, cat. no. X5183. (By permission of the Ashmolean Museum, Oxford)

addressed the concentration of production and the division of labour, but associated this with tradition. Much of the work was done within an enclosed area in the least frequented part of Jingdezhen. 'In this inclosure live and work an incredible number of labourers, each of whom has his task set him. Before a piece of porcelain is taken out of this to be carried to the furnace, it passes through more than twenty hands, and that without confusion'. Add to this the next stages, and 'Some say, that a piece of porcelain has passed through the hands of seventy workmen'. This included extreme division of labour in decorating:

The whole science of these, and of the Chinese painters in general is founded upon no principles, and only consists in following a certain beaten track, assisted with a narrow and confined imagination; they are ignorant of all the beautiful rules of this art: we must, however, confess that they paint flowers, animals and landscapes, which are admired on the porcelain, as well as on screens, and the window blinds of fine gauze.⁸⁵

No direct transfers were made of the porcelain production processes, apart from the recipe. Little positive significance was accorded to the extensive division of labour. The flexibility allowed by the dragon kiln technology, with choices between small-scale or high-capacity production, and the application of a single firing to the full range of pottery were bypassed, and traditional European bottle ovens were adapted to the required firing at higher temperatures. But the porcelain recipe, long kept secret by the Chinese, was pursued through all manner of means from experimentation to alchemy. Experimentation with the use of all kinds of frit, ash and bone continued even after the discovery of the kaolin base for porcelain.⁸⁶ The result was a range of new stoneware, cream ware and bone china products. Production processes thus do not seem to have been per-

⁸⁵ Postlethwayt, *Universal Dictionary*, ii, s.v. 'Porcelain'. Similar accounts of Chinese porcelain production and criticism of the painting, especially the irregularity of the designs, deviations from nature and monstrous human figures, can be found in *The Wonders of Nature and Art: Being an Account of Whatever Is Most Curious and Remarkable throughout the World*, 3 vols. (London, 1750), iii, 158–63.

⁸⁶ See Lorna Weatherill, *The Growth of the Pottery Industry in England, 1660–1815* (London, 1986); Simeon Shaw, *History of the Staffordshire Potteries and the Rise and Progress of the Manufacture of Pottery and Porcelain with References to Genuine Specimens and Notices of Eminent Potters* (London, 1900 [1829]), 90; Hilary Young, *English Porcelain, 1745–95: Its Makers, Design, Marketing and Consumption* (London, 1999), 14–31.

ceived as transferable; instead, existing western technologies would have to be adapted, and new ones developed to produce the coveted commodities.

The standard explanation for the failure to transfer Chinese and Indian luxury technologies to Europe is lack of access. The proverbial secrecy over the Chinese porcelain recipe and long distance of the production centre from the Chinese coast, the closure of Japan to the West, and the careful guarding of the specialist skills of artisan communities in India all contributed to the immobility of technologies. Certainly there is much to this explanation. In India rare skills transmitted through family and customary practices were not easily reproduced. Rulers protected trade secrets which were only acquired by others when they 'seized and repatriated whole artisan communities'.⁸⁷ European merchants in India and China were kept at one remove from producers, and dealt through indigenous intermediaries. But equally, by the eighteenth century, accounts by Jesuit observers in China were widely available in Europe; the nine-page account of porcelain in Postlethwayt's *Universal Dictionary* was one of its longest entries.

The high demand for Indian cloth in the eighteenth century and conditions of labour scarcity in South India also limited the power that rulers, merchants or company officials could wield over the labour and movements of Indian weavers. Other explanations for the absence of technology transfer focus on labour intensity and resource endowment. These explanations were long used about technologies within Europe, yet such techniques were transferred, and adapted to differing labour endowments and to coal instead of wood-fuel environments. The cases of Venetian glass and of Swedish and Walloon iron are well-known examples among many.⁸⁸ Another explanation must lie in contemporary perceptions of Asian technologies. Orientalist descriptions of low-paid labour and static techniques were at odds with the admiration expressed for Asian commodities.

It is in the characteristics of the goods themselves that we can find clues about responses to the techniques. The qualitative

⁸⁷ Bayly, "'Archaic" and "Modern" Globalization', 57.

⁸⁸ W. Patrick McCray, *Glassmaking in Renaissance Venice: The Fragile Craft* (Aldershot, 1999); Chris Evans and Göran Ryden, 'Kinship and the Transmission of Skills: Bar Iron Production in Britain and Sweden, 1500–1860', in Berg and Bruland (eds.), *Technological Revolutions in Europe*.

features of Indian calicoes and Chinese and Japanese porcelain were vital to their success. Too few economic historians look at what qualitative features underlie the demand in the product markets they study.⁸⁹ These Asian goods were distinctively coloured and patterned, finely textured or, in the case of porcelain, both heat-resistant and translucent. They were also adaptable to the sense of recognition that made them objects of beauty and desire not just in Asia but in Europe too.⁹⁰ The East India Companies seized an opportunity to develop luxury and semi-luxury markets for the textiles, seeking out chintz printed on fine cloth to establish a fashion good, then subsequently diversifying to broader qualities.⁹¹ They did the same with porcelain, developing middle-class and gentry markets for tea ware, dinner services and armorial ware. Associating these commodities with taste and fashion was crucial to these markets.⁹²

⁸⁹ I survey discussion in economic theory of the impact of quality on demand in my 'From Imitation to Invention: Creating Commodities in Eighteenth-Century England', *Econ. Hist. Rev.*, lv (2002). For recent, though relatively rare, treatments among economic historians of quality change, see P. C. Reynard, 'Manufacturing Quality in the Pre-Industrial Age: Finding Value in Diversity', *Econ. Hist. Rev.*, liii (2000), and Roy Church, 'New Perspectives on the History of Products, Firms, Marketing, and Consumers in Britain and the United States since the Mid-Nineteenth Century', *Econ. Hist. Rev.*, lii (1999). For an earlier statement of the significance of quality differences for cotton prices, see S. D. Chapman, 'Quality vs. Quantity in the Industrial Revolution: The Case of Textile Printing', *Northern Hist.*, xxi (1985).

⁹⁰ On the aesthetic recognition of and taste for porcelain in Europe, see R. A. Goldthwaite, *Wealth and the Demand for Art in Italy, 1300-1600* (Baltimore, 1993), and his 'The Economic and Social World of Italian Renaissance Maiolica', in *Renaissance Quart.*, xlii (1989); Finlay, 'Pilgrim Art', 169-71.

⁹¹ Lemire, *Fashion's Favourite*, 14-17; John Irwin, 'Indian Textile Trade in the Seventeenth Century', in Irwin and Schwartz, *Studies in Indo-European Textile History*, 15-18, 36-8, 46-7; Young, *English Porcelain*, 10-12.

⁹² During the eighteenth century English families commissioned four thousand dinner services with coats of arms; these were priced at ten times those of unmarked settings. Finlay, 'Pilgrim Art', 171, and D. S. Howard, *Chinese Armorial Porcelain* (London, 1974). On cultural settings for the use of this porcelain, see Mary W. Helms, 'Essay on Objects: Interpretations of Distance Made Tangible', in S. B. Schwartz, *Implicit Understandings: Observing, Reporting and Reflecting on the Encounters between Europeans and Other Peoples in the Early Modern Era* (Cambridge, 1994); Margaret Visser, *The Rituals of Dinner: The Origins, Evolution, Eccentricities and Meaning of Table Manners* (New York, 1991); Lorna Weatherill, *Consumer Behaviour and Material Culture in Britain, 1660-1760* (London, 1988), 157-9; Sarah Richards, *Eighteenth-Century Ceramics* (Manchester, 1999); Elizabeth Kowaleski-Wallace, *Consuming Subjects: Women, Shopping, and Business in the Eighteenth Century* (New York, 1997), 19-72.

Imitation

As we have seen, China and Japan were especially equipped to provide the consumer ware for this market. These were long-standing models of highly urbanized commercial societies, with their own domestic consumer cultures, as well as an extensive Asian maritime trade. Europe's commercial writers were fascinated by the technical superiority and commercial success of Asian arts and manufactures. What they admired above all, however, were commodities which reflected high levels of workmanship. Malachy Postlethwayt remarked in his entry on 'Artificer, or Artisan, or Mechanic':

Were the Chinese or the East Indians, in general, to be deprived of their ingenious artificers, or, if you please, manufacturers they would, very probably, degenerate into the like savage dispositions with the wildest Africans, or American Indians. And this, we may presume, would prove the case also among the Europeans.⁹³

He urged handling and studying the imports from the weavers of Bengal, the Japanese lacquer makers and indigo dyers and Chinese and Japanese porcelains. Their linen cloth was 'of such fineness, that very long and broad pieces of it may easily be drawn through a small ring'. The Japanese lacca was

so fine and curious, that whereas in this country, one may buy an ordinary small box for three or four crowns; one of the same size, when made in Japan of exquisite lacca, will sell for more than eighty crowns. The colours wherewith they dye their stuffs never fade: I have seen one of them . . . extracted out of a flower like to saffron, and one pound of it costs an incredible price.

He thus advised careful observation of Asian imports: 'in whatever mechanical or manufactured arts other nations may excel Great Britain, our artists should be upon the watch, not only to imitate, but surpass, if possible . . . Those which are imported, and which they can see, handle and minutely examine, they are most like to imitate or excel'.⁹⁴

⁹³ Postlethwayt, *Universal Dictionary*, i, s.v. 'Artificer, or Artisan, or Mechanic'.

⁹⁴ *Ibid.*, s.v. 'Mechanical Arts'. Similar remarks were made by French commentators on the role of the Jesuit missions as conduits of technology from East to West. M. Poivre responded to Father Cœurdoux thus: 'it should be the desire of our travellers, in quitting their country, not to be forgetful that there are no people who are not in possession of some particular art, the knowledge of which would be useful to Europe . . . those who work amongst the Chinese missions are the only travellers who have given an example of work so useful. The pains they have taken to discover the methods of the Chinese workers of porcelain, the cultivation of the mulberry and

Similar admiration was expressed in other encyclopedias and dictionaries for the ingenuity of the peoples of the East Indies. Indian chintzes and calicoes, both painted and printed, were derived from the ability of the people 'to imitate a pattern or copy a Picture at first sight, so that it will be hard to distinguish the copy from the original'. Likewise they were praised for long-lasting colours, inlaying ivory, woodwork and sculptures, canes and cases of tortoiseshell, 'and an abundance of other pretty toys'. There were also Chinese colours and varnishes, inks and paper 'in vain attempted to be imitated in Europe', silks 'more substantial and more skilfully and more durably wrought and decorated' than those made in Europe, as well as Japanese cabinets and fine lacquers praised for their high craftsmanship.⁹⁵ Manufacturing consumer goods in seventeenth- and eighteenth-century Europe was perceived to be about learning from Asia. Admiration for Asian craftsmanship was followed, however, not by a direct process of copying, but by a more subtle process of 'imitation'.

The key response to these commodities in Europe was a process of product innovation and invention through imitation. Asian commodities were especially admired as luxuries, not just because of quality or rarity, but because of their status as imitative commodities.⁹⁶ Their value derived not from their materials, but from the craftsmanship that so effectively replicated the natural world — in the case of printed calicoes, the vividly imitated European and exotic flowers and gardens. In the case of

(n. 94 cont.)

the nurture of the silk worm, have merited the thanks of all their countrymen'. And Savary commented on the French missions in his *Dictionnaire universel de commerce*: 'They have done much to promote the trade of France; and this work being done under the disguise of religion, is the less perceptible, thereby enabling France to advance her trade and increase her possessions at the expense of those of Great Britain'. Cited in George P. Baker, *Calico Painting and Printing in the East Indies in the Seventeenth and Eighteenth Centuries* (London, 1921), 17.

⁹⁵ *Wonders of Nature and Art*, iii, 82–3, 144–7, 153–8; *A New and Complete Dictionary of Arts and Sciences; Comprehending all the Branches of Useful Knowledge . . . By a Society of Gentlemen* (London, 1754–5), 2496–2500.

⁹⁶ See Adam Smith's discussion of imitation as an aesthetic quality in Neil De Marchi, 'Adam Smith's Accommodation of "Altogether Endless Desires"', in Maxine Berg and Helen Clifford (eds.), *Consumers and Luxury: Consumer Culture in Europe, 1650–1850* (Manchester, 1999); also see Neil De Marchi and Hans J. Van Miegroet, 'Ingenuity, Preference and the Pricing of Pictures: The Smith–Reynolds Connection', in De Marchi and Goodwin (eds.), *Economic Engagements with Art*. On imitation as an incentive to product innovation and invention, see my 'From Imitation to Invention'.

porcelain, craftsmanship mimicked silver.⁹⁷ The European mimesis, in turn, was not to produce a direct import substitute, a lesser or perhaps more expensive version of the original, but to turn that imitation into product innovation. In the case of calicoes, Dutch and English flower paintings and prints were substituted for Persian Decani miniatures, and fashion dress fabrics for tent hangings.⁹⁸ Japanese lacquerware imported as wooden furniture and boxes became British japanning applied to all sorts of surfaces from papier mâché to tinware and to all manner of goods. Britain's successful transfer of chinaware was not another porcelain, but fine earthenware and cream ware. While porcelain works proliferated across Europe's court cities once the recipe was discovered, these were royal manufactories and their products high luxuries. Britain's own porcelain works, while more diverse in their output, were still set within the framework of the luxury trades. They imitated oriental porcelain and followed rococo designs. Staffordshire earthenware, by contrast, made its success on an imitative material and distinctive design. Wedgwood's and the Staffordshire potters' earthenware substitute for porcelain was thus set in a design context of imitating Greek earthenware and classical forms. His new fashion commodity in vase ware imitated the precious stones, porphyries, marbles and gems of the ancient world.⁹⁹ Matthew Boulton's and the Birmingham toymakers' alloys and impressive array of mechanical devices for cutting, turning, stamping, pressing and printing metals produced a parallel domestic material culture in metal ornament.¹⁰⁰ Plates 9 and 10

⁹⁷ Mukerji, *From Graven Images*; Jack Goody, *The Culture of Flowers* (Cambridge, 1993), 187–90, 213–15; Beverly Lemire, 'Domesticating the Exotic: Floral Culture and the East India Calico Trade with England, c.1600–1800', *Textile: The Journal of Cloth and Culture*, i (2003); Jessica Rawson, 'Central Asian Silver and its Influence on Chinese Ceramics', *Bull. Asia Inst.*, v (1991); Jessica Rawson, *Ancient China: Art and Archaeology* (London, 1980).

⁹⁸ John Irwin and Margaret Hall, *Indian Painted and Printed Fabrics* (Ahmedabad, 1971), 22–5, 36–42.

⁹⁹ Young, *English Porcelain*; Michael Vickers and D. Gill, *Artful Crafts: Ancient Greek Silverware and Pottery* (Oxford, 1994); Michael Vickers, 'Value and Simplicity: Eighteenth-Century Taste and the Study of Greek Vases', *Past and Present*, no. 116 (Aug. 1987).

¹⁰⁰ Maxine Berg, 'Product Innovation in Core Consumer Industries', in Berg and Bruland (eds.), *Technological Revolutions in Europe*, and 'Inventors of the World of Goods', in Kristine Bruland and Patrick O'Brien (eds.), *From Family Firms to Corporate Capitalism* (Oxford, 1998); Helen Clifford, 'Concepts of Invention, Identity



9. Silver mounted teapot, red stoneware, Chinese, c.1720; height 19.1 cm. From David S. Howard, *A Tale of Three Cities: Canton, Shanghai & Hong Kong: Three Centuries of Sino-British Trade in the Decorative Arts* (exhibition catalogue, 1997). (By permission of Sotheby's, London)

illustrate a Chinese luxury import and a new domestic luxury product. Wedgwood's teapot substitutes for the Chinese import, but draws on classical design. The black basalt earthenware is not just a copy of Etruscan prototypes, but connects back to the appeal of the red stoneware teapot.

These European and especially British new consumer goods tapped into an aesthetic principle behind consumer demand

(n. 100 cont.)

and Imitation in the London and Provincial Metal-Working Trades, 1750–1800', *Jl Design Hist.*, xii (1999). On Adam Smith's views of these innovations in metal wares, especially in Birmingham and Sheffield, see Adam Smith, *Lectures on Jurisprudence*, ed. R. L. Meek, D. D. Raphael and P. G. Stein (Oxford, 1978 [1762–3, 1766]), 336; Adam Smith, *The Theory of Moral Sentiments*, ed. D. D. Raphael and A. L. McFie (Oxford, 1976 [1759]), bk IV, ch. 1, 180, 183; Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 2 vols. (London, 1776), i, bk I, ch. xi, 260.



10. Teapot (the spout broken and ground down) and cover, black basalt, with encaustic decoration in blue and white; mark 'Wedgwood & Bentley' impressed 1769–80; height 14.7 cm. V&A Museum, W.310-1867. (By permission of the V&A Picture Library)

previously satisfied by Asia's manufactured products. They were goods marked by variety and novelty, and in their 'creative imitation' they brought taste and distinction to their middling-class consumers. These goods were not, however, individual craft products. Part of their attraction was the modernity of their production processes: the use of different raw materials and sources of energy such as coal, and sophisticated systems of division of labour and mechanization. We have seen that Chinese and Indian goods were also produced under systems of extensive division of labour, and in some cases deployed large-scale concentrated production processes, though these were not the features of their production processes

generally conveyed to the West. Instead, sold as luxuries, they were represented as craft products. Yet the success story behind the scale and diversity of Asian imports into Europe was actually one of technologies based on imitative principles. Large-scale production and extensive division of labour relied on modularity, standardization and mechanical replication, interchangeable parts, and assembly of objects from these parts. These are production systems to be found in the making of bronze ritual vessels in the China of the twelfth century BC, in the Xi'an terracotta army of the second century BC, and in porcelain production from the fourth and third millennia BC. The dragon kilns were the ultimate flexible technology. Even the decorating processes on Chinese export porcelain applied a modular system of mixing and matching standardized motifs.¹⁰¹

Paradoxically, in imitating Asian consumer goods, perceived in Europe as luxuries, the British achieved what was actually an Asian success story — new, quality, semi-luxury consumer goods produced with advanced industrial techniques. But the British techniques, based on the use of coal and a whole range of substitute 'indigenous' materials and alloys, were distinctive, and the goods were new products. These inventions and products were Europe's, and especially Britain's, new consumer goods. They were the modern luxuries praised by such enlightened economic writers as Montesquieu, Hume and Smith. In felicitous terms, Hume, in his essay 'Of Commerce' of 1752, explained the connections:

If we consult history, we shall find, that in most nations foreign trade has preceded any refinement in home manufactures, and given birth to domestic luxury . . . Thus men become acquainted with the *pleasures* of luxury, and the *profits* of commerce; and their *delicacy* and *industry* being once awakened, carry them on to further improvements in every branch of domestic as well as foreign trade; and this perhaps is the chief advantage which arises from a commerce with strangers. It rouses men from their indolence; and, presenting the gayer and more opulent part of the nation with objects of luxury which they never before dreamed of, raises in them a desire of a more splendid way of life than what their ancestors enjoyed . . . Imitation soon diffuses all those arts, while domestic manufacturers emulate the foreign in their improvements, and work up every home commodity to the utmost perfection of which it is susceptible. Their own steel and iron, in such laborious hands, become equal to the gold and rubies of the Indies.¹⁰²

¹⁰¹ Ledderose, *Ten Thousand Things*.

¹⁰² David Hume, 'Of Commerce', in David Hume, *Essays Moral, Political, and Literary*, ed. Eugene F. Miller (Indianapolis, 1985), 264.

David Hume's remarkable insight into the processes of learning from trade identified the role of foreign luxury in awakening the imagination, and the effect of imitation of foreign arts in fostering the technological improvement and refinement of domestic goods. Thus the gold and rubies of the Indies find their British parallel in the possibilities and riches represented by the formerly mundane steel and iron. Britain's new crucible-cast steel, based on processes of heating with coked coal and fireclay crucibles, relied on the lateral transfer of long-standing tacit knowledge in the working of fireclay for bricks, glass furnaces and earthenware kilns. Knowledge gained in consumer-goods production, especially of glass and earthenware, made a vital contribution to Britain's advantage in iron and steel production. Iron and steel were the superior materials of machinery, tools and weapons, but equally they were a new 'gold and rubies', the material of the finest metal ornament and jewellery, of watch and clock springs and precision instruments.¹⁰³

We have seen how British consumer goods achieved their success on principles of imitation in technology, design and marketing. But imitation was much more than an aesthetic characteristic of consumer demand: it was a stated national goal. A key aim of many of the patents taken out for invention and projects to produce new consumer goods in Britain over the period was stated to be the 'imitation' of French and Chinese goods. And indeed the goal in 1754 of the Society of Arts, Manufactures and Commerce, responsible since the mid eighteenth century for providing project premiums as an alternative to patent registration, was 'to improve design, to invent British luxuries and to discover new uses for indigenous and British colonial raw materials'. Patria provided Europeans, Bayly argues, with a great advantage over Asia.¹⁰⁴ State power was deployed to block the import of Indian calicoes, and heavy import duties were imposed on lacquerware and porcelain. Inventors declared their aim to be to head off French, Chinese and Indian imports. But we can take this much further. British merchants also

¹⁰³ J. R. Harris, *Industrial Espionage and Technology Transfer: Britain and France in the Eighteenth Century* (Aldershot, 1998), 205–21; see also Berg, 'Product Innovation in Core Consumer Industries'.

¹⁰⁴ Bayly, 'South Asia and the "Great Divergence"', 100.

focused on access to imports as the key to a new pivotal role for Britain in the global economy.

III

EMPIRE AND BRITISH CONSUMER GOODS

The Americas

The process of inventing new consumer goods to substitute for Asian luxuries was not just about connections between Europe and Asia, but included Africa and the Americas. The focus of much of this historical literature on trade, imperialism and industrialization has also been on exports.¹⁰⁵ The point of European colonial systems and the slave trade in the New World, it is argued, was to create a land-intensive periphery to enable Europe to exchange a constantly increasing volume of manufactured exports for raw materials, colonial groceries and foodstuffs.¹⁰⁶ But economic indicators point to a much greater significance for Britain of her West Indian and North American colonies for both exports and imports. Coercive slave economies in the Americas could be relied on for the raw materials needed by 'core' economies.¹⁰⁷ Imports from Asia to Britain in the first half of the eighteenth century were worth less than half the value of those from the Americas, and exports from Britain to Asia were only worth a quarter of those going to the Americas.¹⁰⁸ The goals which incorporated West Africa, the Caribbean and North America into the production and distribution of global luxury were about merchants' search for imports — for manufactured goods and colonial groceries, but also for dyestuffs for the woollen and linen industries, for high-grade iron and other metals for metalworkers, for clays and kaolin for potters, for potash, for sulphuric acid for glassmaking,

¹⁰⁵ O'Brien, 'Imperialism and the Rise and Decline of the British Economy', esp. 52–60; Engerman, 'Mercantilism and Overseas Trade'; François Crouzet, 'Toward an Export Economy: British Exports during the Industrial Revolution', *Explorations in Econ. Hist.*, xvii (1980), esp. 77–92.

¹⁰⁶ There is an extended discussion of this in Pomeranz, *Great Divergence*, ch. 6.

¹⁰⁷ *Ibid.*, p. 20.

¹⁰⁸ P. J. Marshall, 'Britain and the World in the Eighteenth Century, iii, Britain and India', *Trans. Roy. Hist. Soc.*, 6th ser., x (2000), 3; Linda Colley, *Britons: Forging the Nation, 1707–1837* (New Haven and London, 1992), 68–71.

bleaching and soap production, and for flax and cotton. Britain ran her commercial empire, and supervised its trade through Acts of Trade and Navigation, and the Board of Trade from 1696. Free-trade areas and bounties were established, and these provided new opportunities for developing British consumer goods.¹⁰⁹

The role of trade and empire in British merchants' perceptions of the nation's economic power can be compared with earlier European responses to world trade. Britain's perceptions of its relation to France and to the East bore parallels to France's perception of Dutch economic power in the mid seventeenth century. The Dutch Republic was then perceived to be 'le magasin général', notable for cheap freightage and low interest, as a storehouse of world commodities and a showcase of advanced industrial techniques.¹¹⁰ The British in the early to mid eighteenth century were seeking to be this centre point of global economic power. In the 1760s, in the wake of British success in the Seven Years War which left her with new colonial territories from India and West Africa to North America and the Caribbean, British public opinion conceived of a homogenizing imperialist vision, 'imparting even to the most uncultivated of our species, the happiness of Britons'.¹¹¹ Colonists in back-country America could see themselves as 'English people who happened to live in the provinces'. They could consume the same wide range of British and oriental commodities as could those who shopped with the grocer Abraham Dent of Westmorland, with his bountiful stock of rice, raisins, vinegar, oil, brandy and numerous other goods from the Mediterranean, the Baltic, India, the Americas and the Caribbean.¹¹²

¹⁰⁹ Jacob Price, 'The Imperial Economy, 1700–1776', in P. J. Marshall (ed.), *The Oxford History of the British Empire*, ii, *The Eighteenth Century* (Oxford, 1998), especially the points made on p. 80 on the differences in priorities between merchants and politicians.

¹¹⁰ Jonathan Israel, *The Dutch Republic: Its Rise, Greatness and Fall, 1477–1806* (Oxford, 1995), 307–18.

¹¹¹ *Gentleman's Mag.*, xxxiii (1763), 291, cited in Kathleen Wilson, *The Sense of the People: Politics, Culture and Imperialism in England, 1715–1785* (Cambridge, 1998), 204.

¹¹² T. H. Breen, "'Baubles of Britain": The American and Consumer Revolutions of the Eighteenth Century', *Past and Present*, no. 119 (May 1988), 103; David Hancock, *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785* (Cambridge, 1995), 30–1; Hoh-Cheung Mui and Lorna Mui, *Shops and Shopkeeping in Eighteenth-Century England* (Toronto, 1989); Simon Smith,

Likewise import substitution was seen to take place within Britain and her territories. Colonial territories would provide sources of exotic raw materials alternative to those formerly brought from the East, and places of experimentation in developing the materials for new British consumer and luxury goods. These sources were now perceived to be indigenous to a wider Britain which included far-flung territories with different climates, soils and resources. This was a time to deploy exotic raw materials deriving from Canada and the West Indies to West Africa in new products and design styles; they provided the variety and novelty to be joined to imitation.¹¹³ Postlethwayt put it thus: 'our colony trade is our own trade, under our own conduct and control . . . why may not we become sellers of all North American, as well as our island productions, to other nations?'¹¹⁴

The point of this strategy was to engage global trade policies in contributing to the needs of British manufacturing. It did not rely on individual monopolies and the conflicts these caused with other interest groups. This is illustrated by the opposition of British manufacturers later in the century to the industrial policies of the East India Company. The Company was condemned by some producers for extending its portfolio from commercial to industrial activity:

whether they will print their own callicoos; make their own gunpowder; wind, spin and weave, their own cottons; bake and refine their own sugars; or even manufacture those articles fabricated from our staple domestic produce, and which, by their charter, they are obligated to export. A calamitous alternative would then be the lot of the persons who are now engaged in such manufactures: unable to trade to India, or to cope in this country with the gigantic strides of a manufacturing East-India Company, they must either abandon their pursuits, or be degraded into dependants on the all-sweeping monopolists by whom they are injured.¹¹⁵

(n. 112 cont.)

"A Town Shaped Out for Trade": Kendal's Integration into Commercial Networks, 1675–1731', in Simonetta Cavaciocchi (ed.), *Fiere e mercati nella integrazione delle economie europee, secc. XIII–XVIII* (Istituto Internazionale di Storia Economica 'F. Datini', Atti delle settimane di studio e altri convegni, xxxii, Florence, 2001).

¹¹³ Price, 'Imperial Economy', 80–6; Matthew Craske, 'Plan and Control: Design and the Competitive Spirit in Early and Mid-Eighteenth Century England', *Jl Design Hist.*, xii (1999). For the role of the Seven Years War, the primacy of colonial over Continental campaigns and the imperial vision of politics, see Wilson, *Sense of the People*, 190–205.

¹¹⁴ Malachy Postlethwayt, *The Universal Dictionary of Trade and Commerce*, 3rd edn, 2 vols. (London, 1766), i, p. xxxi.

¹¹⁵ *Considerations on the Attempt of the East-India Company to Become Manufacturers in Great Britain* (London, 1796), 33.

The East India Company's hold on India was increasingly seen as precarious in the face of the hostility of 'war-like princes', and the Company's projects were viewed as the schemes of speculators.¹¹⁶ The West Indies, Canada and the American colonies were perceived differently.

The West Indies were seen as a laboratory for experimentation in the production of all manner of eastern primary products — not just cacao and coffee, the colonial groceries we usually associate with the Caribbean, but also tea, black pepper, rhubarb and other medicines. Success would mean that tea, coffee and chocolate, produced on colonial plantations, would no longer be imported luxuries, but 'indigenous' consumer goods. Though still 'imported' in the national accounts, their terms were more favourable and British control over their production and mercantile networks more certain.¹¹⁷

In like manner the projectors to the Society of Arts, Manufactures and Commerce investigated a whole range of possibilities, such as producing raw silk in the southern American colonies to provide an alternative to imports from Turkey, Italy and Persia.¹¹⁸ The Society was organized into six standing committees, one of which was 'British Colonies and Trade'. This committee spread information about the Americas, as well as promoting machines, crops and projects that might be developed there.¹¹⁹

A priority of the Society was the making of the East in the West, and plans to develop the 'latent resources' of the Americas to substitute for eastern materials: 'The obtaining the products of the East and the transporting them in a growing state to the West Indies has ever been an object of consideration with the Society'.¹²⁰ Letters to the Society going back to the mid 1750s

¹¹⁶ *Ibid.*, 3–6, 26.

¹¹⁷ Price, 'Imperial Economy', 86.

¹¹⁸ D. G. C. Allan, *William Shipley: Founder of the Royal Society of Arts* (London, 1968); D. G. C. Allan and J. L. Abbott (eds.), *The Virtuoso Tribe of Arts & Sciences: Studies in the Eighteenth-Century Work and Membership of the London Society of Arts* (Athens, Ga., and London, 1992), 91–119; *Premiums Offered by the Society Instituted at London, for the Encouragement of Arts, Manufactures and Commerce* (London, 1768–75); *Transactions of the Society Instituted at London for the Encouragement of Arts, Manufactures and Commerce, with the Premiums Offered in the Year 1783*, i (London, 1783), 20.

¹¹⁹ Hancock, *Citizens of the World*, 35.

¹²⁰ *Transactions of the Society Instituted at London for the Encouragement of Arts, Manufactures and Commerce, with the Premiums Offered in the Year 1786*, iv (London, 1786), 217–18.

from projectors, inventors, planters, commercial writers and statesmen in the American and Caribbean colonies connected the development of local resources to British substitutes for eastern or European imports. Edmund Quincy wrote to the Society in 1765: 'the various soils and climates of the American Colonies will yield upon due encouragement and cultivation almost every principal commodity at present imported from foreigners, either for necessity, convenience or luxury'.¹²¹ These perspectives continued beyond the American Revolution. William Tatham wrote to the Society in 1802 to endorse Cantillon's doctrine that nations became great by foreign commerce, and to urge conciliation with America:

then will it apply with peculiar force to the interest of this insulated country that there are no points of human economy which so much concern them as the expansion of that commerce by which they thrive; and the discovery of those latent resources which multiply the means and material that increase their arts and manufactures and stimulate the industry of the people.¹²²

The Committee on British Colonies and Trade offered premiums for the development of colonial cotton and indigo, and of barilla for use in the manufacture of soda, soap and glass; others were offered for the development of viticulture and wine production, and for the cultivation of hemp, olive and cinnamon trees. The successive attempts to establish a source of British indigo, first in the Caribbean and subsequently in South Carolina, are a clear example of this strategy.¹²³ A rich correspondence detailed the difficulties, successes and failures of attempting to introduce mulberry trees, silkworms and silk manufacture into South Carolina, Connecticut and New England; the successive efforts to propagate a substitute for cochineal in Jamaica, and numerous other attempts at dyestuffs; and the projects for West India cotton in Tobago. The corresponding Barbados Society of Arts, Manufactures and Commerce declared its purpose to be to 'find a solution to the problem of the island's over dependence

¹²¹ Letter from Edmund Quincy on the improvement of the colonies in the Americas, 30 June 1765, Colonial Correspondence of the Society of Arts, Manufactures and Commerce, Royal Society of Arts, London (hereafter RSA), PR.GE/110/19/10.

¹²² William Tatham, 'Essay on the Extension of Commerce and the Culture of Latent Resources in America' (handwritten manuscript, London, 26 Mar. 1802), RSA, PR.MC/104/10/85.

¹²³ *Premiums Offered by the Society Instituted at London*; Price, 'Imperial Economy', 80.

on sugar crops and the idleness and sloth of the white population'. Proposals included coffee and cacao cultivation, a paper manufacture, hemp, flax and cotton, and dyestuffs 'similar to that used in India or China'.¹²⁴

Africa

Global reach in the development of a British consumer good to substitute for an Indian luxury extended to tapping into resources in Africa. Here the example is provided by calico printing, and the resources were not only slaves, but the gum of the acacia tree. That resource provided a global link between Africa and the British cotton industry that long pre-dated the development (though not the idea) of cotton plantations in the Americas. This example can be provided through the story of Samuel Touchet, speculator and promoter with a vision.

Touchet, hailing from a family of Manchester cotton merchants and manufacturers, had financial interests in cotton from the Levant, linen yarn from Europe, and the African slave trade, as well as shipping interests, insurance brokerage and other speculations. Touchet in the mid 1740s saw where the future lay, and promoted an elaborate scheme to monopolize the supply of raw cotton, to finance and control the mechanization of cotton spinning, and to monopolize the source of a key raw material in calico printing — Senegal gum.¹²⁵ The first two parts of his scheme, controlling raw cotton supplies and controlling mechanized spinning, failed. In Birmingham, the centre not only of so much of the product innovation of the time, but of mechanical invention of all types, Touchet

¹²⁴ Joshua Steele to the Society, 14 July 1781, RSA, PR.M/104/10/200; and 6 Dec. 1786, RSA, PR.MC/104/10/71.

¹²⁵ Samuel Touchet's story is told in A. P. Wadsworth and Julia de Lacy Mann, *The Cotton Trade and Industrial Lancashire, 1600–1780* (Manchester, 1931), 156–7, 244–7, 444. For more recent discussion of the role of Senegal gum in the European cotton industry, see Inikori, *Africans and the Industrial Revolution*, 396–401. Some background on the climate of 'projecting', speculation and venture capitalism around eighteenth-century invention may be gathered from Christine MacLeod, *Inventing the Industrial Revolution* (Cambridge, 1988), chs. 6 and 7, and her 'The 1690s Patent Boom: Invention or Stock-Jobbing?', *Econ. Hist. Rev.*, xxxix (1986); see also Inikori's example of a later speculator in gum, Miles Nightingale, a London dry-salter: *Africans and the Industrial Revolution*, 400. See Liliane Hilaire-Pérez, *L'Invention technique au siècle des lumières* (Paris, 2000) for some discussion of speculation and invention in France. Much remains to be done linking the activities of speculators such as Touchet.

financed Wyatt and Paul, who were experimenting in the mechanization of roller spinning throughout the later 1740s and 1750s. The mill and the machine ultimately failed, only to be picked up again, copied and commercialized more effectively by Richard Arkwright, so-called inventor of the spinning frame, ten years later.

The third arm of Touchet's strategy was control of the Senegal gum trade. The acacia trees of the Senegambia, then under the control of the French, were in the eighteenth century perceived to be the only source of this vital component for the European papermaking and textile printing trades.¹²⁶ The gum forests were exploited by desert merchants relying on slave labour for extraction and for transportation in desert caravans. The Compagnie des Indes shipped more than one thousand tons of it in 1743 and again in 1746, and prices rose sharply over the period from the 1740s to the 1820s to fifteen times the price prevailing in the early eighteenth century. There was a perception that the high price of French gum was causing a crisis in the British textile industry. Indeed there were Orders in Council and a petition of calico printers to the House of Commons in 1751 and 1752, and corresponding discussions of this in the Foreign Affairs Ministry in France.¹²⁷ Control of Senegal gum would provide Touchet with the key to command of the calico printing industry, and with this the command of the early British cotton trade.¹²⁸

The trade in Senegal gum was also part of a complex global trade on the African coast involving slaves, gold, Indian cotton, American tobacco and French brandy. But next to slaves it was the gum trade from this part of the West African coast which yielded the highest trade value to both the British and the

¹²⁶ For more on the pivotal role of calico printing in the development of the British and French cotton industries, see S. D. Chapman and Serge Chassagne, *European Textile Printers in the Eighteenth Century* (London, 1981).

¹²⁷ See *Journal of the House of Commons*, xxvi (1752), 376, 441–4, and Papers of the Board of Trade, Dd.63, both cited in Wadsworth and Mann, *Cotton Trade and Industrial Lancashire*, 245; André Delcourt, *La France et les établissements français au Sénégal entre 1713 et 1763: la Compagnie des Indes et le Sénégal: la guerre de la gomme* (Dakar, 1952), 343–4.

¹²⁸ P. D. Curtin, *Economic Change in Pre-Colonial Africa: Senegambia in the Era of the Slave Trade* (Madison, 1975), 109–21, 215–17, 320–33; P. D. Curtin, *The Rise and Fall of the Plantation Complex* (Cambridge, 1990), 113–28; Delcourt, *La France et les établissements français*, 343–5; Boubacar Barry, *Senegambia and the Atlantic Slave Trade*, trans. Ayi Kwei Armah (Cambridge, 1998), 71–80.

French.¹²⁹ Slaves were also in bountiful supply as famine and harvest failure in the region drove indigenous peoples to the coast.¹³⁰ Senegal was a special African preserve of the *Compagnie des Indes* after it renounced its monopoly on the entire French slave trade in 1725. The supply of slaves was fostered, however, not just by ecological factors, but by African consumerism, generated by stockpiles of enticing European, Asian and American imports offered with credit and bribes to local elites. Slaves as well as gum were exchanged for highly valued European merchandise; but markets for European products were highly differentiated between staples, 'high technology' manufactures and luxury goods. Where gum might be traded by desert warriors for finished metal goods, paper, powder, shot, trade beads, Indian *guinée* cloth and other consumer manufactures, slaves were the foreign exchange for the most expensive and valuable imports such as guns, pistols, luxury cloth and furnishings.¹³¹ Slaves were also traded between English and French merchants, by private agreement after 1752 with the Royal African Company, in exchange for gum for the English market.¹³² The special place of the Senegambia and its trade in gum and slaves placed it at the interface between trade with Asia, Europe and the West Indies. Senegal was set on the major trading route to the West Indies, on a route via Madeira, the Azores and Cape Verde islands that could be navigated at all times of the year, with ships going on to the West Indies or returning directly to Europe.¹³³

The outbreak of the Seven Years War in 1756 provided Touchet with his opportunity, and with the secret support of Pitt, he outfitted five of his own armed vessels at the cost of £10,200, joined up with several of the king's vessels in the Canaries, and attacked and took the French posts of Gorée and Saint-Louis in Senegambia. He looked forward to a monopoly of many years on the trade from the region in gum, slaves,

¹²⁹ Curtin, *Economic Change in Pre-Colonial Africa*, 327. See the account of the gum trade, describing its strategic significance to the French, English, Dutch and Portuguese, in Postlethwayt, *Universal Dictionary*, 2nd edn, i, s.v. 'Gum'.

¹³⁰ J. F. Searing, *West African Slavery and Atlantic Commerce: The Senegal River Valley, 1700-1860* (Cambridge, 1993), 60-1; Curtin, *Economic Change in Pre-Colonial Africa*, 109-11; James L. Webb, *Desert Frontier: Ecological and Economic Change along the Western Sahel, 1600-1850* (Madison, 1995).

¹³¹ Searing, *West African Slavery and Atlantic Commerce*, 62-3, 68-74.

¹³² Wadsworth and Mann, *Cotton Trade and Industrial Lancashire*, 245.

¹³³ *Ibid.*, 65-6, 71-7.

ivory, gold and wax. He also saw the opportunity of pursuing the attempts, thus far unsuccessful, of British cotton merchants to supplant Indian *guinée* cloth in African markets. But this was not to be — he was undermined by the interests of the Royal African Company, and the peace settlement of 1763 which ceded the post at Gorée to the French. The British held on to Saint-Louis and the Senegal valley until 1783, when Senegal was returned to France.¹³⁴ Touchet had pursued an outdated strategy of projector and speculator; he was perceived as a monopolist now overtaken by a new international system of free trading zones, tariff incentives and the reciprocal arrangements conducted by state powers. The calico-printing interests were said to have preferred their chances on the French market to those with an English monopolist. This global financial schemer who quite correctly predicted the meteoric rise of a cotton industry based on the consumer demand for printed calicoes was by 1770 reported by Horace Walpole to be a 'broken merchant of a very bad character'.¹³⁵

Touchet's case illustrates a widespread perception of the role of colonial territories and British trading monopolies within a global economy. These territories were perceived as part of a broad-fronted initiative to bypass eastern luxury imports, and to produce not just import substitutes, but new goods attractive to international as well as domestic markets. The colonies were not just an aspect of European power politics; they were perceived at the time to form an integral part of a process of modernization, import substitution, consumer goods provision,

¹³⁴ See Postlethwayt, *Universal Dictionary*, 2nd and 3rd edns, i, s.v. 'Gum'. The details of the French and British rivalry over the Senegambia and the gum trade, especially from the 1730s to the 1750s, are set out in Delcourt, *La France et les établissements français*, 324–46. On the part played by Touchet, see Wadsworth and Mann, *Cotton Trade and Industrial Lancashire*, 245. On the cotton manufacture and the African trade, see *ibid.*, 118, 127, 158. See especially the discussion of the inferior dyes in English cottons, and the precise qualities demanded by African merchants. See also Curtin, *Economic Change in Pre-Colonial Africa*, 319–21; Barry, *Senegambia and the Atlantic Slave Trade*, 73. For a recent discussion, see Inikori, *Africans and the Industrial Revolution*, 397–402.

¹³⁵ Wadsworth and Mann, *Cotton Trade and Industrial Lancashire*, 145–61, 247. The Royal African Company entertained hopes of selling British cotton goods to Africa, but consumer preferences remained highly biased in favour of a range of very specific, differentiated Indian cottons: the indigo-dyed *guinée*; the nicones, a striped calico from Broach and Baroda; and tapseals, a mixed silk and cotton cloth woven in Cambay and Ahmadabad. See Curtin, *Economic Change in Pre-Colonial Africa*, 319–20.

and what would later come to be perceived as industrialization. The extension of Britain's geographical boundaries was about making her luxuries indigenous, and not 'oriental'. They would thus be 'tamed', made modern and domestic. New products would be made with different raw materials, sourced in Britain and her territories, especially in North America and the Caribbean, and the development of new technologies would allow the 'imitation' of oriental luxuries.

IV

CONCLUSION

Jan de Vries identified in household behaviour the key connection between consumption and production that had previously eluded those seeking the wider economic impact of consumer society. That connection was also to be found in the global luxury goods trade. Imports of manufactured luxury and fashion goods prompted a process of product innovation leading to industrialization. That innovation was founded in a trade in goods, but not in a transfer of knowledge: cultural representations prevailed over integration of technologies. An import trade in luxury goods from China and India to Europe in the later seventeenth and eighteenth centuries provoked attempts to 'imitate' goods made in the advanced consumer societies of Asia, and to do so through the adaptation of European and especially British productive techniques and resources. This process of 'making the East in the West' generated a whole range of different consumer products: British new consumer goods. Imports in a global luxury trade, imitative invention provoked by these, and a new geographical extension of the frontiers of 'indigenous' resources accessed through colonies provided a crucial connection between consumption and production in the origins of industrialization.

Recent generations of historians of British and European industrialization have argued that the origins of industrialization were to be found in western exceptionalism. Placing western industrial development within a global consumer perspective opens new questions on interconnections between East and West, and the particular part played by empire at this early stage. Britain's eighteenth-century empire provided geographical

access to alternative resources and, together with British production processes, provided the means to bypass eastern luxury imports. The result of this creative adaptation of global luxury was an industrialization based on British consumer goods. By the end of the eighteenth century, these new consumer goods had come to be perceived in Europe and America as the distinctive modern alternatives to former Asian and European luxuries.¹³⁶

University of Warwick

Maxine Berg

¹³⁶ This accounts for the *anglomanie* prevailing in fashion consumer markets by the last decades of the eighteenth century. See Carolyn Sargentson, *Merchants and Luxury Markets* (London, 1996), 119–27. Also see my ‘French Fancy and Cool Britannia: The Fashion Markets of Early Modern Europe’, in Cavaciocchi (ed.), *Fiere e mercati nella integrazione delle economie europee*, 543–6; Harris, *Industrial Espionage and Technology Transfer*, 173–221.