



—•—
*'The Arms of England that
Grasp the World':
Empire at the Great Exhibition*

—•—
ANTHONY SWIFT
University of Essex

Anthony Swift has published a number of articles on international expositions and on Russian and Soviet social and cultural history. He is presently working on a book on world's fairs and expos from 1851 to the present as well as a study of the Soviet Union's participation in international expositions.

The Great Exhibition of the Works of Industry of All Nations, held in London's Hyde Park in the summer of 1851, represented many things. As its royal patron Prince Albert remarked in March 1850, the exhibition was to be 'a true test and living picture of the point of development at which the whole of mankind has arrived . . . , and a new starting point from which all nations will be able to direct their further exertions'.¹ In other word, it was a public exercise in ranking the nations of the world according to their manufacturing achievements and thereby demonstrating the superiority of industrial civilisation. To contemporaries, it was also a celebration of British manufacturing prowess, an unprecedented international gathering in which the world's leading nations came together for peaceful competition, a lesson in the power of technology and a testament to the



virtues of free trade in the global economy. The Great Exhibition was not, however, simply a self-congratulatory celebration of Britain's industrial leadership. For years Britain had felt insecure about the quality of its industrial design, which was generally conceded to be inferior to that of France. Henry Cole, a key force behind the exhibition, and other design reformers saw it as an opportunity to educate the British public and manufacturers about good design by acquainting them with foreign examples. The Great Exhibition was thus viewed diversely, as an argument for free trade and industrial capitalism, a pacific congress of nations, an exercise in ranking the countries of the world according to their respective economic development, and an attempt to remedy the perceived shortcomings of British industrial design.

Over the years scholars have found a multitude of additional meanings in the Great Exhibition, seeing it as, among other things, a counter-revolutionary measure that sought to discipline the working classes by 'combining the functions of spectacle and surveillance', the birthplace of modern advertising practices, 'a cultural battlefield, in which proponents of different and sometimes competing visions of Britain fought for ascendancy in a struggle to define Britain's past, present, and future', and 'an important moment in the religious world of early Victorian England'.² Others have underlined the imperialistic character of the Great Exhibition. According to Paul Greenhalgh, one of the main goals of the exhibition 'was to simultaneously glorify and domesticate empire', which 'was presented as an Aladdin's cave demonstrating to the public the full scope of their national possessions'. Curtis Hinsley argues that it 'was classically imperialist in conception and construction; on display was the material culture of an industrial, commercial empire, with an emphasis on manufactured goods derived from colonial raw materials'. Anne McClintock similarly views the exhibition as an imperial commodity spectacle, one in which 'white British workers could feel included in the imperial nation, the voyeuristic spectacle of racial "superiority" compensating them for their class subordination'. Lara Kriegel, focusing on the representation of India at the Great Exhibition, characterises the exhibition as 'defining Britain's imperial project' by producing narratives that domesticated



India for the British public, although she also points out that some narratives 'destabilised the relationship between colony and metropole' and questioned the benefits of British rule.³ The representation of Britain's overseas empire was undoubtedly an important part of the Great Exhibition. Yet recent interpretations of the Great Exhibition have highlighted the polyphonic nature of the exhibition and the commentary it elicited, arguing that it contained diverse and sometimes conflicting meanings. As Jeffrey Auerbach points out, 'the meaning of the exhibition, far from being "clear", as several historians have written, was rife with contradictions'.⁴ Paul Young, although he makes convincing case that the exhibition contained a potent 'grand narrative' of commercial interdependency and global integration based on free trade and led by Britain, nonetheless concedes that numerous tensions underlay this narrative.⁵

If the Great Exhibition was polyphonic, what then was the place of empire in the chorus of voices that described, explained and recorded it? How were the various components of empire displayed and interpreted? How did settler colonies' displays compare with those of non-settler territories and dependencies? How central was empire to the Great Exhibition? While there have been a number of studies of some of the key colonial exhibits at the Great Exhibition, with most attention devoted to those of the East India Company, there is no comparative work on its imperial dimension.⁶ This article will evaluate the place of empire at the exhibition by examining how Britain's various imperial possessions, or 'dependencies', as they were usually referred to, were represented and interpreted. While there was a great deal of imperial wealth on display in the Crystal Palace, it was the jewels of India, and not the ostensibly more economically important raw materials of the empire, which attracted the most attention and comment. The representation of empire must be viewed, of course, in the context of the entire exhibition, of which it was only one element.

In the Crystal Palace, which contained over one million square feet within its walls, varying amounts of space were allotted to the participating countries, but some participants used more than their initial allotment, others less. In the end,



Britain and its dependencies occupied 544,320 square feet in the western half of the Crystal Palace, with less than ten per cent of that total (40,896 square feet) given over to exhibits from the lands of the empire. The floor space used by foreign states covered 403,776 square feet in the eastern half.⁷ The British section generally followed the official catalogue's classification system, which divided exhibits into four categories - raw materials, machinery, manufactures, and the fine arts - and thirty sub-categories, but the foreign states and British possessions organised their space as they saw fit. Among the foreign imperial powers represented, which included the Austrian, Ottoman, and Russian Empires, only France mounted a separate imperial exhibit, of Algeria. It was organised by the French minister of war, who was awarded a council medal for 'the valuable collection of articles' that included cotton, tobacco, foodstuffs, textiles and handicrafts.⁸

The inclusion in the British section of nearly forty colonies and dependencies, which the French journalist Alexis de Valon called 'the arms of England that grasp the world', represented them as an integral part of Britain's global network of commerce.⁹ Yet if the list of British imperial possessions was 'staggeringly impressive', as one historian has commented,¹⁰ most of them occupied relatively little space in the Crystal Palace, except for the East Indies (India, Ceylon and Labuan), which filled their 24,192 square feet of floor space with 11,604 square feet of exhibits. The exhibits from Canada, New Brunswick, Newfoundland, Nova Scotia and the Hudson's Bay Territories covered 3,886 square feet, while the various Australian colonies and New Zealand managed to fill only 835 square feet of the total 3,800 square feet they had been assigned initially. Other colonies got less substantial allotments, ranging from 100 square feet in the case of Gambia to 1,000 square feet each for Malta and the Ionian Islands, but these were unable to use all of the relatively small space they had been given. Ultimately, exhibits from 'South and West Africa, Mauritius and St. Helena' occupied 403 square feet, those from 'Mediterranean colonies' - 314 square feet, and those from 'West India colonies' - 403 square feet.¹¹



A number of Britain's colonies sent quite meagre offerings. Initially Jamaica received 1,500 square feet for its display, but the island was represented at the exhibition only by some artificial flowers made from the fibre of native yucca plants, contributed by a Manchester woman. Some samples of cod liver oil furnished by a London importer were the sole contents of Newfoundland's exhibit, while the tiny colony of Western Australia eventually sent a handful of mineral specimens that included newly discovered gold, although it was too late for them to be included in the catalogues.¹² Exhibits from the West Indies, Australia, New Zealand, British Guiana, the Cape and other British colonies consisted mainly of raw materials and agricultural produce that contained 'but little to attract the spectator', according to London's *Guardian* in its review of the colonial displays.¹³ The Canadian provinces mounted the largest and most important exhibition after that of India. They, too, exhibited raw materials for the most part, yet also showed some manufactures and machinery, and made a more favourable impression at the exhibition.¹⁴ Local committees were responsible for organising participation in the Great Exhibition, and both the quality and quantity of the displays from faraway colonies very much depended on the level of interest and coordination that the exhibition elicited among local elites.

If the West Indies, Canada, Australia, the Cape and other colonies had rather modest exhibits that attracted relatively little notice from either the public or the press, the East India Court was among the exhibition's star attractions. It occupied a prominent place at the edge of the British area and near the centre of the Crystal Palace's great nave. Assembled by the East India Company and augmented by contributions from Queen Victoria and native rulers, the Indian section was a cornucopia of luxurious furnishings, costly jewels, exotic costumes and exquisite fabrics, as well as specimens of cotton, tea, timber, minerals and other raw materials. 'What richness! What perfection of workmanship! What brilliance and harmony of colour!' exclaimed a Russian journalist in describing the splendour of the Indian exhibits, the only imperial displays that he deemed worthy of mention in his detailed coverage of the exhibition's contents.¹⁵ 'With regard to wealth and splendour,' reported the *Colonial Magazine and East India*



Review, 'those [exhibits] of the East India Company far surpass all the rest'.¹⁶ Indeed, India's exquisite jewels, ornaments, inlaid furniture and textiles far outshone the less eye-catching offerings of the rest of the empire.

Unlike Britain's settler colonies, India did not represent itself at the Crystal Palace; the East India Company presented it to exhibition visitors. The company had given its support to the Great Exhibition early on, its officials expressing their confidence that 'there would be mutual advantages of great importance both to India and this country: to India in calling forth new products and directing attention to the subject, and to this country in furnishing suggestions, etc. and new materials for manufactures'.¹⁷ Having lost many of its former privileges and with its charter up for renewal in 1853, the East India Company may also have hoped to demonstrate the value of the subcontinent that it administered for the crown.¹⁸ Committees composed of British residents were established to collect specimens for the exhibition, while John Forbes Royle, a botanist employed by the company, was charged with organising the Indian display.¹⁹ Royle had long been interested in India's agricultural resources, and worked to bring them to the attention of European manufacturers in his role as the East India Company's Reporter on the Products of India and through his activities as a member of the Royal Society and the Royal Asiatic Society.²⁰

In assembling the exhibits, Royle was guided by his belief that 'it is only under the heading of Raw Materials and Manufactured Articles that the products of India will hold a conspicuous place, in the present day, among the accumulated products of the world'.²¹ He thought that a display of Indian raw materials would acquaint British manufacturers with hitherto unknown products and create a demand for them, thus benefiting both Britain and India. Royle and the East India Company were also anxious to use the exhibition to demonstrate that India's resources were of strategic importance to Britain:

India, already the Koh-i-noor of the British crown, could contribute to such a collection so large a number of such products as would prove



incontestably how valuable an appendage it is of the British Empire during peace, and how much more so it might become, in case of war with more than one nation.²²

India, like the other British possessions, was presented and interpreted at the Crystal Palace as an infinitely rich source of hitherto untapped raw materials that could potentially supply the needs of British industry. As Royle noted in the *Official Catalogue*: 'India possesses an immense number of animal and vegetable, as well as of mineral substances, well-fitted for arts and manufacture of every kind; and the country has often been described as capable of producing, within its own limits, almost all the useful products of every quarter of the globe.'²³ Exhibits of commodities for export to Britain such as timber, coal, tea, rice and jute were prominent in the Indian section, and Indian-grown cotton was promoted as a possible alternative to slave-produced American cotton, which accounted for over 80 per cent of British cotton imports at the time.²⁴ The economic value of India depended, however, on British exploitation of its untapped wealth. The *Illustrated London News* emphasised this in describing India's natural resources, 'which, except for articles of show and luxury, have as yet experienced a very slight degree of development'.²⁵ Indian cotton, for example, was criticised for its adulterated state, which made it unsuitable for use in British mechanised textile production.²⁶ The *Times* asked why India's mineral wealth was 'not more efficiently explored and cultivated', and concluded that 'there is a field in India for profitable employ of Anglo-Saxon energy and skill combined with capital'.²⁷ Discussions of the samples of India's agricultural and mineral wealth reinforced the image of a backward land unable to hoist itself into modernity and in need of British intervention to develop the resources it could not develop on its own. As the jury report put it, Indian prosperity was retarded by 'the inert, careless, and indifferent habits of the natives confirmed and kept up by religious peculiarities and long-established prejudices'.²⁸ The displays of Indian agricultural implements and machines only added to the picture of stasis and backwardness. Some of the exhibits seem to have been selected in order to demonstrate India's need for foreign tutelage. The East India Company's own



catalogue described the 'extremely rough workmanship' of the agricultural tools, while the *Illustrated London News* dismissed the cotton mills and gins as 'primitive contrivances of the rudest class, to which . . . few or no additions or improvement have been made for centuries, showing how much remains to be done, when the light of civilisation shall have made its genial influence felt by our Oriental brethren'.²⁹

Discussions of the exhibits were sometimes contradictory, however, in their evaluations of Indian tools and techniques. Royle claimed that the hand-operated saw-gins made by native mechanics for cleaning the indigenous short-staple cotton used in India's domestic textile production were as efficient as any American gin.³⁰ The *Illustrated London News* pointed out that Indian ploughs were well suited to native soil conditions, and that some agricultural innovations introduced only recently in Europe had been known for centuries in India. It also stated that the displays of Indian copies of European mechanical devices made it 'quite plain that the native Indians are as capable of learning improvements in mechanical arts as Europeans', although little progress had been made thus far in improving traditional methods. The models of irrigation devices were criticised for their 'wasteful employment of power', but it was conceded that colonists could profit from lectures on their applications.³¹ Indian agricultural techniques were thus presented as being simultaneously adaptable, impervious to change, appropriate to local conditions, wasteful of energy and worthy of study. The conclusion, however, fit neatly into the view that British rule was necessary for India to progress, and would benefit both the colonisers and the colonised:

It is impossible to doubt that with the increased means of communication which roads and railways would open, the interior of central India is capable of affording a largely-increased exportation of cotton, sugar, rice, linseed, hemp, and other staples peculiar to the soil and climate; and that the result of increased intercourse would be to greatly improve the social and intellectual condition of the native population, and to render them better customers for the manufactures,



which we can produce so good and so cheap.³²

Yet if Royle and the East India Company sought foremost to present India as a warehouse of commodities that had to be exploited by British industry in order to reach its full potential, they simultaneously undermined this message by assembling a magnificent display of Indian manufactures, including superb textiles, exquisite state furniture, princely garments embroidered in jewels and pearls, richly adorned weapons and other treasures that overshadowed - and distracted the public's attention from - India's supposedly more valuable commodities. Commentators most often described India not as the source of raw materials that would enable the empire to feed British industry, but as the source of princely treasures - a land characterised by 'all the lavish grandeur that to Rajah life belongs', in the words of an anonymous poem written to celebrate the exhibition.³³ This was an image of 'barbaric splendour' and decadent native rulers, an image created by eighteenth and nineteenth-century Orientalist discourse and embodied in the Indian court, with its royal furnishings, stuffed elephant and priceless jewels.³⁴ The Indian court, commented a French visitor, demonstrated that 'this East is still the country of the Arabian Nights, the region of Aladdin and the wonderful lamp'.³⁵ The vision of India as a source of luxurious imperial booty and trophies was reinforced by 'the chief object of attention', the koh-i-noor diamond, contributed by Queen Victoria.³⁶ The diamond had been recently confiscated by the East India Company when it annexed Lahore, and subsequently presented to Queen Victoria. Its presence at the exhibition symbolically asserted Britain's assumption of rule over India.³⁷ Among the other items displayed by Victoria in the Indian section were an ivory throne presented to her by the Rajah of Travancore and an elaborate, bejewelled houdah mounted on a stuffed elephant. Indian rulers also sent exhibits to the Crystal Palace, including weaponry, essential oils, samples of embossed paper from the King of Oude, and a royal bedstead from Benares. India, in the florid description of the *Illustrated Exhibitor*, was the prized possession of the British Empire:



India, the glorious glowing land, the gorgeous and beautiful; India, the golden prize contended for by Alexander of old, and acknowledged in our day as the brightest jewel in Victoria's crown; India, the romantic, the fervid, the dreamy country of the rising sun; India the far-off, the strange, the wonderful, the original, the true, the brave, the conquered.³⁸

The public was so fascinated by the East India Company's spectacle of beguiling riches, particularly the jewels, that some commentators expressed the fear that visitors would not heed the exhibition's lessons on the true foundations of national wealth.³⁹

The Indian decorative arts on show were not only a distraction. They also offered lessons on good design. Despite Britain's pre-eminence in manufacturing, it was generally conceded at the exhibition that France surpassed Britain in the design and ornamentation of its manufactures - particularly textiles.⁴⁰ A small but important group of design reformers - some of whom, like Henry Cole, Owen Jones, Matthew Digby Wyatt, and William Redgrave, were closely involved in the organisation of the Great Exhibition - were convinced that mechanised production had resulted in a decline in the quality of British design. For the reformers, the design principles embodied in Indian decorative arts could be used to renew British industrial design.⁴¹ The Great Exhibition brought Indian design to the attention of a broad public, and some scholars have argued that the examples of Indian artisanship displayed at the Crystal Palace were to have an important influence on the subsequent evolution of British design.⁴² The tasteful ornamentation of the exhibits of the Indian section was widely praised and sometimes contrasted with the eclectic ornamentation of British manufactured goods. Matthew Digby Wyatt included twenty colour illustrations of Indian textiles and other products in his catalogue of the best design exhibited at the Crystal Palace, a number exceeded only by the illustrations of British and French products.⁴³ A leading design reformer, Owen Jones, who was responsible for decorating the interior of the Crystal Palace, marvelled at the Indian textiles and



the 'perfection at which their artists have arrived', suggesting that they 'will afford most fruitful lessons, not only to the students, but to every cultivated mind'.⁴⁴ The *Official Catalogue* lauded the principles of Indian design, acknowledging that in 'the management of colours, the skill with which a number of them are employed, and the taste with which they are harmonised . . . Europe has nothing to teach, but a great deal to learn'.⁴⁵ Having succeeded in protecting its domestic textile manufacturers from Indian imports by manipulating tariff policies, Britain was now called upon to enlist traditional Indian design principles to remedy the design inadequacies of its mechanised mass production. French commentators were equally enthusiastic about Indian textiles. *L'Illustration* praised the patterns and colours of Indian shawls, even boasting that the French could be proud of having equalled the quality of Indian production.⁴⁶ The director of the Ecole supérieure du commerce, Adolphe Blanqui, gave perhaps the greatest accolade when he called the Indians 'the French of the Orient in their industrial genius', comparing Indian artists to the designers of Paris and Lyon.⁴⁷

The refinement and beauty of Indian craftsmanship suggested that India was not merely a repository of riches wasted by an idle population, but a highly developed and ancient civilisation that had long perfected arts that Europeans could not match with their mechanised production. British observers sometimes responded by characterising Indian artistry as a decadent and wasteful use of labour, and contrasting the opulence on display in the Indian section with the more utilitarian products exhibited by British and other European manufacturers. India's inferiority to Europe was rhetorically maintained by attributing its excellence in design to socioeconomic stagnation and backwardness. Indeed, it was precisely because India had not experienced the transformations of the Industrial Revolution, according to the proponents of design reform, that India's arts had maintained their artistic integrity and fidelity to traditional notions of beauty.⁴⁸ Describing an 'exquisite' Deccan muslin, the *Art Journal* commented that 'such an expenditure of human labour proves that civilisation has not yet penetrated very deep'.⁴⁹ The Cambridge scientist William Whewell, lecturing on the exhibition's significance, admitted that 'the tissues and ornamental works of



India and Persia have beauties which we, with all our appliances and means, cannot surpass', leading him to ask 'Wherein is our superiority?' He answered that Britain's industrial civilisation was superior because of the benefits it offered ordinary consumers: 'This, therefore is the meaning of the vast and astonishing prevalence of machine-work in this country: -- that the machine with its million fingers works for millions of purchasers, while in remote countries, where magnificence and savagery stand side by side, tens of thousands work for one.'⁵⁰

The *Illustrated London News* took a similarly harsh view of the supposed difference between East and West: 'The more civilised nations excel most in common comforts - comforts which all classes may enjoy. In splendour of costume, jewellery, and arms, in pageants and processions, we find it hard to approach people who do not carry pocket-handkerchiefs, and have not much to do with the washerwoman.'⁵¹ Commenting on the finely-worked coat of a Sikh chief, *Tallis's* popular guidebook informed its readers: 'What a proof of a barbarous state of society is this taste for inordinate decoration.'⁵² Blanqui, too, criticised Indian artisans as 'servile reproducers of the past', unable to engage in large-scale industrial production.⁵³ In these constructions, the beauty of Indian craftsmanship became an emblem of backwardness and decadence. Yet India and 'the East' was not alone in receiving such treatment, for European nations such as Russia, Austria, Italy and at times even France were also held up by British and American commentators as examples of countries that were preoccupied by the production of pretty but useless luxury goods.⁵⁴

Despite general agreement among British design reformers that Indian textiles were 'the most perfect in design of any that appeared in the Exhibition', the textiles were awarded no medals from the international juries.⁵⁵ Even though the juries placed great value on design quality in determining the awards, they appear to have favoured European over Indian design. The jury judging silks justified its decision to give no medals to the Indian silks by claiming that they lacked quality and novelty, and also objecting that the silks were not exhibited by their producers. Since no Indians accompanied the products they had made or



cultivated to London, the Indian exhibits might well have been at some disadvantage when the juries made their decisions. It is worth noting, however, that the juries were able to award the East India Company and Indian princes several medals for manufactured objects or samples of raw materials they had not produced, and that a few European manufacturers received medals for their imitations of Madras handkerchiefs and their shawls made of Indian wool.⁵⁶ The juries, which usually included several European merchants and manufacturers, found Indian muslins relatively expensive, and their finish irregular and 'universally defective' in comparison with European machine-made versions, while Indian woven checked goods were deemed inferior to European copies.⁵⁷

India's neighbour at the Crystal Palace was Canada, which also had a prominent yet much smaller display. Canada, most of whose provinces had achieved self-government in the 1840s, represented itself at the Great Exhibition, using its participation to draw attention to its vast resources and attractiveness as a destination for emigrants. Eager to present itself as 'one of the brightest jewels in the British crown', in the words of a booklet describing its section,⁵⁸ Canada offered extensive displays of its timber, mineral, furs and agricultural products, together with a few manufactured articles that demonstrated its modern industrial capabilities. The emphasis was on Canada's existing achievements and rich potential in commerce, agriculture and industry. A gigantic timber trophy made up of samples of the various woods found in Canada - which one British newspaper called an 'uncouth sort of pile' - stood at the centre of the exhibits of raw materials and underscored the importance timber trade to the colonies.⁵⁹ There were also samples of wheat, corn and peas, as well as furs and skins from the Hudson's Bay Company.⁶⁰ The official jury deemed Canada's mineral collection to be superior to that of any other country at the exhibition.⁶¹ In its manufactured products, Canada emphasised utility as opposed to luxury, showing samples of household furniture, stoves, footwear, blankets, sleighs, a piano, a church bell and a fire engine capable of shooting two streams of water to a height of 170 feet each. The fire engine, which won a prize medal at the close of the exhibition, was sent by public subscription from Montreal as an example of



Canadian mechanical skill.⁶²

Colourful exhibits of handicrafts made by native peoples reinforced the impression that European civilisation was transforming Canada. A large canoe was placed near the centre of the Canadian section in an eye-catching display that served to provide an element of exotic spectacle while reminding visitors how far Canada had come under British rule. The *Observer* remarked on how the agricultural produce and manufactures of 'a rising and energetic people' contrasted with 'birch canoes, snow shoes, the wampum belt, the tomahawk, and the mocassin [sic] of the Indian', which evoked the wilderness yet to be tamed. The *Art Journal* commented on the visual effect produced by 'those barbarous utensils, arms and ornaments, mixed up with all the evidences of English civilisation', implying that Canada was on the way to becoming a little England.⁶³

The effect of the Canadian exhibition was to underline the progress that the colony had achieved in recent years, as well as its bright prospects. Canada was able to represent itself successfully as a land of the future that had much to offer potential settlers. The *Illustrated Exhibitor* called it 'a vast field for emigrants from the mother country', for 'Canada, in addition to her fertile soil, contains in the bowels of the earth all the resources necessary to render inhabitants powerful and prosperous'.⁶⁴ The Canadian section was seen to demonstrate the fact that 'civilisation has begun its useful work in the far west; European industry has planted the spade there, and some of the fruits are now before us - speaking much and credibly for the past, but speaking still more cheerily of what is yet to come'.⁶⁵ Like India, it was a country rich in raw materials, but one that was also making rapid strides on the road to industrial development. The *Illustrated London News* highlighted the contrast between a Canada oriented to the future and an India mired in the past in its evaluation of the Canadian displays: 'Its products are not so showy, but are yet more valuable as evidences of social wealth and social advancement. They are the spoils of peace, not of war, the industrial beginnings of a junior branch of the great civilizing family of the



universe, not the gaudy remains of an effete barbarism, which has been demolished, but not yet replaced by anything better.'⁶⁶ This gets to the crux of how empire was presented and interpreted differently at the Great Exhibition, and underlines the subordinate status of India in the imperial hierarchy. In the case of the settler colonies such as Canada, they were junior partners who were capable of progressing and developing themselves. India, in comparison, was a conquered land of riches left over from a glorious past, a static society whose immense wealth could only be properly exploited by Britain, its primitive production techniques and luxury goods unfavourably compared to the machinery and mass-produced objects exhibited by the industrial nations.

The contributions of the Australian colonies were much less impressive than Canada's, and largely served to emphasise their rich natural resources and future potential. According to the *Official Catalogue*, Van Diemen's Land (Tasmania) provided the most extensive collection, including objects representing all four categories of exhibition, although it reckoned that the timber exhibits were of the most interest.⁶⁷ South Australia sent samples of malachite, gold, copper and iron ore together with a few bottles of wine, while New South Wales and Van Diemen's Land displayed opals and topazes from their mines.⁶⁸ Victoria was not represented, for it separated from New South Wales only in July 1851, but did send samples of the gold that had sparked a gold rush when discovered shortly thereafter.⁶⁹ Van Diemen's Land contributed four models of canoes and some shell necklaces as examples of aboriginal production, but none of the other Australian colonies sent any evidence of the labour of indigenous peoples.⁷⁰ There was high praise for the samples of Australian wheat and wool, the latter already an important article of colonial trade and well-known in Britain.⁷¹ One guidebook pointed out the importance of Australia to imperial commerce, noting that its wool exports to Britain had expanded exponentially in recent years, to the point where Australia supplied 35,879,971 of the 78,768,647 pounds of wool that Britain imported in 1849.⁷² The jury that evaluated foodstuffs concluded that 'there are no wheats exhibited superior to the South Australian'.⁷³



Notwithstanding the quality of Australia's displays of its vast mineral and agricultural wealth, the exhibits lacked visual appeal and attracted scant attention from the public or the press. As John Tallis observed,

Our colonial brethren, who know well how they are appreciated in the City, will excuse us from dwelling on sources of greatness which are more often felt than seen: there is nothing picturesque in a sack of wheat, though the grain be "heavy and bright-coloured;" there is nothing interesting in a tin of preserved Australian beef, excellent though it may be, unless to a hungry man; little variety of "tone and colour" in a fleece fine enough to make the fortune of a Yorkshire manufacturer; and, as for copper ore, the worst specimens are often the most sparkling.⁷⁴

According to the *Illustrated London News*: 'The colonies of Australia, although among the most important of our possessions as producers of raw materials required for our staple manufacturers, as large consumers of our manufactures, and as great fields of emigration, have nothing very new or very showy to exhibit.'⁷⁵ The *Observer* argued that it was unreasonable to expect the Australian colonies to make a 'great show', for 'their work is civilisation rather than manufacture', and the raw materials on exhibition 'are not of the species which commands much attention'.⁷⁶ The sources of Australia's wealth may not have been particularly visually interesting, but the colonies displayed more than raw materials. They also offered some evidence that European civilisation was beginning to plant roots in Australian soil. Along with their samples of minerals, wheat and wool, New South Wales and Van Diemen's Land also exhibited furniture, fabrics, soap, models of bridges, books and a few prints and watercolours of local scenes. The Royal Society of Van Diemen's Land even sent a locally-printed and bound edition of its papers and proceedings, illustrated with lithographs.⁷⁷ Hoffenberg notes that these 'hints of social evolution, including bound English dictionaries printed with a local press, seemed to mock exhibits such as the "Necklaces of Shells, as worn by aborigines of Tasmania".'⁷⁸

The other British colonies got little notice at the Great Exhibition, save in the *Official Catalogue* and Tallis's detailed account. Coverage of the colonial displays was invariably confined to a brief listing of resources and a few comments on their potential commercial value. New Zealand, described by Tallis as 'the most romantic, healthy and unprofitable of all our settlements', forwarded to the Crystal Palace what the *Official Catalogue* called 'a valuable and tolerably extensive collection of native and other products'. These were primarily mineral and vegetable products; the manufactured articles were 'few and simple, consisting only of coarse cloth, basket-work, leather, and some native curiosities'.⁷⁹ British Guyana displayed models of aboriginal dwellings in addition to samples of arrow-root, timber, coffee, cotton and sugar.⁸⁰ The *Official Catalogue* described Trinidad's exhibition as 'of much value and interest', adding that 'it consists, however, almost exclusively of a series of natural specimens and productions' along with a few manufactures of 'native workmanship', such as baskets and sieves.⁸¹ British West Africa was also represented by raw materials and a few handicrafts, which were contributed 'exclusively by British exhibitors interested in this colony'.⁸²

Discussing the significance of Britain's colonies and possessions at the Great Exhibition, the *Observer* emphasised the potential value to British industry of the raw materials on show:

Few things in the Crystal Palace are to our minds more interesting than the specimens of colonial produce. They tell us of the condition of distant friends, and of the prospects of those from whom we are about to separate; they speak unmistakeably [sic] of the relative value of regions concerning which few can have any personal knowledge, and of the future destiny of countries which may one day become our rivals. They point out, moreover, where our merchants, our manufacturers, our artisans, are to look for those raw materials, in the absence of which their intelligence and skill would



remain without application.⁸³

This contemporary assessment might appear to confirm claims that the exhibition was an imperial commodity spectacle that emphasised manufactured goods derived from colonial raw materials.⁸⁴ Yet this is an oversimplification. Cotton textiles were at the heart of Britain's industrial leadership and among the most important manufactured goods at the exhibition, but the overwhelming majority were produced from American rather than colonial cotton. Not only colonies were consigned to the ranks of suppliers of raw materials to the more industrialised nations. Blanqui, a fierce proponent of free trade, argued that Spain and Turkey should focus on exploiting their natural resources rather than attempting to stimulate industry through tariffs.⁸⁵ Tallis claimed that the chief interest of the United States for Europeans lay in its ability to meet the old continent's demand for food supplies, notwithstanding the sensation produced at the exhibition by the Colt revolver and McCormick's reaper.⁸⁶

The Great Exhibition was the forerunner of the lavish international expositions of the nineteenth and early twentieth centuries, but it was not simply an antecedent to them. It influenced some modes of representation of empire at subsequent expositions, to be sure, yet the Great Exhibition and the people who organised it, visited it, wrote about it or read of it had preoccupations and concerns that were not necessarily the same as those of later expositions or later generations. The representation of imperial possessions and their products was an essential ingredient in the Great Exhibition, naturally, in keeping with the undertaking's international and encyclopaedic goals, but empire did not have the pride of place that it obtained at later international expositions.⁸⁷ There was little if any imperial competition at the Crystal Palace. A British journalist may have claimed that the East India Company's display at the exhibition impressed 'every visitor with the importance of such possessions to Great Britain', and Valon may have likened the British Empire to 'the arms of England that grasp the world', but neither claimed that the possession of an empire or its size was a factor in determining a nation's greatness.⁸⁸ The great rivalry at the exhibition was between Britain and France, as



many contemporaries noted, and the issue at stake was not empire but artistry and good design in manufacturing.⁸⁹ In 1854, the official French report on the Great Exhibition called into question whether Britain's empire was really much of an advantage in the quest for raw materials. Pointing out that Britain had failed thus far to cultivate cotton in India of the same quality as it imported from America and thereby reduce its dependency on imports, the report noted with pride that Algeria had produced and exhibited in London assorted types of cotton that equalled the best American varieties: 'More fortunate than England, France has the hope of possessing, in its colony of Alger, the most beautiful resources for producing cotton.'⁹⁰

What most observers, British and foreign, believed to be the source of Britain's leadership and greatness in 1851 was the industrial machinery that gave it the ability to produce massive quantities of inexpensive goods, rather than the size and wealth of its empire. Assessing the results of the exhibition, *The Observer* had little to say about the empire other than that it held vast yet 'unproductive' resources, but declared that in the production of machinery and cotton textiles Britain had no rivals. The journalist and social reformer Henry Mayhew saw the British moving machinery at the exhibition as proof of 'the supremacy of this nation over all others in mechanical genius and industry'. He located the source of Britain's greatness in the plenteous native supply of mineral wealth on display in the Crystal Palace -- the iron and coal that made and powered the machines.⁹¹ As a Russian review of the exhibition put it: 'No European people - even all of them together - can compare with the English when it comes to the manufacture of machinery. They are alone in the field, their hydraulic pumps, locomotives and steamships surpass anything ever seen.'⁹² Britain's empire was viewed as a potential source of raw materials to be exploited one day to feed those machines, but then so were the resources of the entire world. The free trade ideology promoted at the Great Exhibition did not divide the world into formal empires, but into manufacturing nations and nations that supplied raw materials. If the colonies and dependencies were relegated, for the most part, into the ranks of the undeveloped, so were many nations that had nothing in common with the lands of

ex PLUS ultra Vol 3, April 2012

'The Arms of England that Grasp the World': Empire at the Great Exhibition



the British Empire save their lack of mechanised industrial production.

- 1 Cited in Peter Berlyn, *A Popular Narrative of the Origin, History, and Prospects of the Great Industrial Exhibition, 1851* (London, 1851), p. 89.
- 2 Tony Bennett, 'The Exhibitionary Complex', *New Formations*, no. 4 (1988), p. 78; p. 29; Thomas Richards, *The Commodity Culture of Victorian England: Advertising and Spectacle, 1851-1914* (London: Verso, 1991), pp. 57-72; Thomas Richards, *The Commodity Culture of Victorian England: Advertising and Spectacle, 1851-1914* (London: Verso, 1991), pp. 57-72; Jeffrey A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (New Haven: Yale University Press, 1999), p. 5; Geoffrey Cantor, *Religion and the Great Exhibition of 1851* (Oxford: Oxford University Press, 2011), p. 204.
- 3 Paul Greenhalgh, *Ephemeral Vistas: The Expositions Universelles, Great Exhibitions and World's Fairs, 1851-1939* (Manchester: Manchester University Press, 1988), pp. 53-55; Curtis M. Hinsley, 'The World as Marketplace Commodification of the Exotic at the World's Columbian Exposition', in I. Karp and S.D. Levine, eds, *Exhibiting Cultures: The Poetics and Politics of Museum Display* (Washington: Smithsonian Institution Press, 1991), p. 345; Anne McClintock, *Imperial Leather: Race, Gender and Sexuality in the Colonial Contest* (London: Routledge, 1995), p. 59; Lara Kriegel, 'Narrating the Subcontinent in 1851: India at the Crystal Palace', in Louise Purbrick, ed., *The Great Exhibition of 1851: New Interdisciplinary Essays* (Manchester: Manchester University Press, 2001), p. 149.
- 4 Auerbach, *Great Exhibition*, p. 60. See also John R. Davis, *The Great Exhibition* (Stroud: Sutton, 1999); Purbrick, *Great Exhibition*, pp. 1-25; Jeffrey Auerbach and Peter Hoffenberg, eds, *Britain, the Empire, and the World at the Great Exhibition of 1851* (Aldershot: Ashgate, 2008), pp. 1-19.
- 5 Paul Young, *Globalization and the Great Exhibition* (New York: Palgrave Macmillan, 2009), p. 6, *passim*.
- 6 See Greenhalgh, *Ephemeral Vistas*, pp. 53-55, *passim*; Stuart Murray, 'Canadian Participation and National Representation at the 1851 London Great Exhibition and the 1855 Paris *Exposition universelle*', *Histoire sociale/Social History*, vol. 32, no. 63 (May 1999), pp. 1-22; Ewan Johnston, "'A Valuable and Tolerably Extensive Collection of Native and Other Products": New Zealand at the Crystal Place', in Auerbach and Hoffenberg, *Britain*, pp. 77-91; Hoffenberg, "'Nothing Very New or Very Showy to Exhibit"?: Australia at the Great Exhibition and After', in Auerbach and Hoffenberg, *Britain*, pp. 93-120; Kriegel, 'Narrating the Subcontinent', pp. 146-78; Carol A. Breckenridge, 'The Aesthetics and Politics of Colonial Collecting: India at World's Fairs', *Comparative Studies in Society and History*, vol. 31, no. 2 (April 1989), pp. 202-05; Peter Hoffenberg, *An Empire On Display: English, Indian and Australian Exhibitions from the Crystal Palace to the Great War* (Berkeley: University of California Press, 2001). Hoffenberg makes some comparisons of the Australian, Indian and Canadian exhibits in *An Empire on Display* (pp. 135-36, 142, *passim*), but most of the book, which focuses on Australia and India, is concerned with post-1851 exhibitions.
- 7 *First Report of the Commissioners for the Exhibition of 1851* (London: W. Clowes, 1852), pp. 72-73. This report contains information on the amount of floor space assigned to each participant and how much was actually used, as well as the 'net horizontal space occupied by goods' and that 'occupied by passages'. The figures used above include the total floor space occupied by exhibits and passages. *The Official Descriptive and Illustrated Catalogue of the Great Exhibition of the Works of Industry of All Nations, 1851*, vol. 1 (London: Spicer Brothers, 1851), pp. 16-17, gives somewhat different figures, based only on the space initially allotted to participants, and assumes that half of that space would be taken up by passages for the public's circulation among the exhibits. In practice, the proportion of floor space taken up by passages depended on how the participants organized the layout of their displays.
- 8 *Manchester Guardian*, 10 September 1851.
- 9 Alexis de Valon, 'Le tour du monde à l'exposition de Londres', in *Revue des deux mondes*, no. 11 (July 1851), p. 220.
- 10 Greenhalgh, *Ephemeral Vistas*, p. 53.
- 11 *Official Descriptive and Illustrated Catalogue*, vol. 1, pp. 16-17; *First Report of the Commissioners*, pp. 72-73.
- 12 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 971; *The Times*, 3 September 1851.
- 13 *The Guardian*, 30 April 1851. Not to be confused with the *Manchester Guardian*.
- 14 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, pp. 957-69.

-
- 15 'Smes'. Londonskaia vseмирnaia vystavka', *Panteon i repertuar russkoi stseny*, vol. 5, book 9 (September 1851), p. 34.
- 16 'Colonial Contributions', *The Colonial Magazine and East India Review*, vol. 21 (1851), p. 521.
- 17 'Papers Referring to the Proposed Contributions from India for the Industrial Exhibition of 1851', in J. Forbes Royle, *On the Culture and Commerce of Cotton in India and Elsewhere: With an Account of the Experiments Made by the Hon. East India Company up to the Present Time* (London: Smith, Elder, 1851), Appendix, p. 586.
- 18 Kriegel, 'Narrating the Subcontinent', p. 150.
- 19 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, pp. 857-58.
- 20 John Forbes Royle, *Essay on the Productive Resources of India* (London: n.p., 1840).
- 21 'Papers Referring to the Proposed Contributions from India', p. 590. The other broad categories of display at the Great Exhibition were 'Machinery' and 'Fine Arts'.
- 22 *Ibid.*, p. 588.
- 23 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 857. See also *Illustrated London News (ILN)*, 2 August 1851, p. 163.
- 24 Edward Solly, 'The Vegetable Substances Used in the Arts and Manufactures', in *Lectures on the Results of the Great Exhibition: Delivered before the Society of Arts, Manufactures, and Commerce, at the Suggestion of HRH Prince Albert*, first series (London: D. Bogue, 1852), pp. 267-69.
- 25 *ILN*, 14 June 1851, p. 563.
- 26 *Manchester Guardian*, 16 July 1851; *Reports by the Juries on the Subjects in the Thirty Classes into which the Exhibition was Divided* (London: William Clowes and Sons, 1852), p. 94; Solly, 'Vegetable Substances', pp. 268-69.
- 27 *The Times*, 3 September 1851.
- 28 *Reports by the Juries*, p. 73.
- 29 A. M. Dowleams, ed., *Catalogue of East Indian Productions, Collected in the Presidency of Bengal, and Forwarded to the Exhibition of Works of Art and Industry to be held in London in 1851* (Calcutta: n.p., 1851); *ILN*, 14 June 1851, p. 563; *ILN*, 10 May 1851, p. 392.
- 30 Royle, 'On the Arts and Manufactures of India', in *Lectures on the Results of the Great Exhibition of 1851*, first series, p. 530
- 31 *ILN*, 10 May 1851, p. 392.
- 32 'East Indian Agriculturists and Agriculture', *ILN*, 31 May 1851, p. 489.
- 33 *The Exhibition Lay* (London: n.p., 1852), p. 19.
- 34 'India and Indian Contributions to the Industrial Bazaar', *Illustrated Exhibitor*, no. 18 (4 October 1851), p. 319. For other accounts emphasizing the riches and splendour of India, see *Aunt Busy-Bee's The Fine Crystal Palace the Prince Built* (London: Dean and Son, 1851), p. 6; *Little Henry's Holiday at the Great Exhibition* (London: Houlston and Stoneman, 1851), pp. 128-29; *ILN*, 17 May 1851, p. 428; *ILN*, 14 June 1851, pp. 563-64; *ILN*, 28 June 1851, p. 607; *ILN*, 23 August 1851, p. 250. On Orientalist interpretations of India and its history, see Ronald Inden, 'Orientalist Constructions of India', *Modern Asian Studies*, vol. 20, no. 3 (1986), pp. 401-46; Jyotsna G. Singh, *Colonial Narratives/Cultural Dialogues: 'Discoveries' of India in the Language of Colonialism* (London: Routledge, 1996); Amal Chatterjee, *Representations of India: The Creation of India in the Colonial Imagination, 1740-1840* (Basingstoke: Macmillan, 1998).
- 35 M.J. Lemoinne, 'Letters of M.J. Lemoinne', in Dionysius Lardner, ed., *The Great Exhibition, and London in 1851. Reviewed by Dr. Lardner, etc.* (London: Longman, Brown, Green and Longmans, 1852), p. 586.
- 36 *The Times*, 3 May 1851.

-
- 37 On the symbolism of the diamond, see Paul Young, “‘Carbon, Mere Carbon’: The Kohinoor, the Crystal Palace and the Mission to Make Sense of British India’, *Nineteenth-Century Contexts*, vol. 29, no. 4 (2007), pp. 343-58.
- 38 ‘India and Indian Contributions to the Industrial Bazaar’, *Illustrated Exhibitor*, no. 18 (4 October 1851), p. 317.
- 39 Young, *Globalization*, pp. 120-25.
- 40 See, for example, James Ward, *The World in Its Workshops* (London: William S. Orr, 1851), 8-10; *The Times*, 15 May 1851.
- 41 Partha Mitter, *Much Maligned Monsters: A History of European Reactions to Indian Art* (Oxford: Clarendon Press, 1977), pp. 221-30; John R. Davis, *The Great Exhibition*, pp. 9-21; Auerbach, *Great Exhibition*, pp. 117-18.
- 42 Mitter, *Monsters*, 221-25; John Sweetman, *The Orientalist Obsession: Islamic Inspiration in British and American Art and Architecture, 1500-1920* (Cambridge: Cambridge University Press, 1987), pp. 167-71.
- 43 Matthew Digby, *The Industrial Arts of the Nineteenth Century: A Series of the Choicest Specimens Produced by Every Nation at the Great Exhibition of Works of Industry* (London: Day and Son, 1851-53).
- 44 Owen Jones, ‘An Attempt to Define the Principles’, p. 271; see also Owen Jones, ‘Gleanings from the Great Exhibition’, *Journal of Design and Manufactures*, 28 June 1851, pp. 89-93.
- 45 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 917.
- 46 ‘Exposition universelle de Londres’, *L’Illustration*, 20 August 1851, p. 191.
- 47 Adolphe Blanqui, *Lettres sur l’Exposition universelle de Londres* (Paris: Capelle, 1851), p. 238.
- 48 Royle, ‘On the Arts and Manufactures of India’, p. 524; Owen Jones, ‘An Attempt to Define the Principles Which Should Regulate the Employment of Colour in the Decorative Arts’, in *Lectures on the Results of the Great Exhibition*, second series (London: D. Bogue, 1853), pp. 271-72.
- 49 S.A., ‘Wanderings in the Crystal Palace’, part 3, *The Art Journal*, 1 September 1851, pp. 230-31.
- 50 William Whewell, ‘The General Bearing of the Great Exhibition on the Progress of Art and Science’, in *Lectures on the Results of the Great Exhibition*, first series, pp. 17-19.
- 51 *ILN*, 10 May 1851, p. 392.
- 52 John Tallis, *Tallis’s History and Description of the Crystal Palace, and the Exhibition of the World’s Industry in 1851* (London: John Tallis and Co., 1852), vol. 1, p. 31.
- 53 Blanqui, *Lettres*, p. 238.
- 54 See Auerbach, *Great Exhibition*, pp. 165-70, passim; Anthony Swift, ‘Russia and the Great Exhibition of 1851: Representations, Perceptions, and a Missed Opportunity’, *Jahrbücher für Geschichte Osteuropas*, vol. 55, no. 2 (2007), pp. 251-52.
- 55 Royle, ‘On the Arts and Manufactures of India’, pp. 536-37.
- 56 *Reports by the Juries*, pp. 163, 348, 363, 379-80, passim.
- 57 *Ibid.*, pp. 347-48, 483-4.
- 58 *A Few Words Upon Canada, and Her Productions in the Great Exhibition* (London: Piper, 1851), p. 7.
- 59 *ILN*, 21 June 1851, pp. 597-98.
- 60 *Ibid.*; *Tallis’s History and Description of the Crystal Palace*, vol. 1, pp. 51-53.
- 61 *Reports by the Juries*, p. 15.

-
- 62 *ILN*, 3 May 1851, p. 372; *The Industry of Nations, as Exemplified in the Great Exhibition of 1851. The Materials of Industry* (London: Society for Promoting Christian Knowledge, 1852), p. 193; *Reports by the Juries*, p. 179; *Illustrated Exhibitor*, no. 7 (19 July 1851), pp. 136-37.
- 63 *Observer*, 19 May 1851; *Art Journal*, no. 3 (1851), p. 181, cited in *A Few Words Upon Canada*, p. 2.
- 64 'Canadian Contributions to the World's Fair', *Illustrated Exhibitor*, 20 September 1851, pp. 277, 279.
- 65 'The Canada Court', *ILN*, 31 May 1851, pp. 494-95.
- 66 *Ibid.*
- 67 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 988.
- 68 *ILN*, 24 May 1851, p. 456.
- 69 *The Times*, 29 September 1851.
- 70 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, pp. 996-97.
- 71 Blanqui, *Lettres*, p. 236.
- 72 *Guide-book to the Industrial Exhibition; With Facts, Figures and Observations on the Manufactures and Produce Exhibited* (London: Partridge and Oakey, 1851), p. 106.
- 73 *Reports of the Juries*, p. 51.
- 74 Tallis's *History and Description of the Crystal Palace*, vol. 1, p. 54.
- 75 *ILN*, 3 May 1851, p. 372; the same remark was repeated in Tallis's *History and Description of the Crystal Palace*, vol. 1, p. 53.
- 76 *Observer*, 19 May 1851.
- 77 'Australian Contributions to the Crystal Palace', *Illustrated Exhibitor*, no. 4 (28 June 1851), p. 74; *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 999.
- 78 Hoffenberg, 'Australia at the Great Exhibition', p. 108. Hoffenberg points out that Tallis's *History and Description of the Crystal Palace* attributed the absence of more aboriginal exhibits in this and other colonial displays to the destruction of indigenous peoples by colonial settlers (vol. 1, p. 54). *Ibid.*, pp. 108-9.
- 79 Tallis's *History and Description of the Crystal Palace*, vol. 1, p. 49; *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, p. 1000. One Maori chieftain, using an agent in Twickenham, sent his tanning barks and woods to London, where he managed to have them displayed not in the New Zealand section but in the British section. Johnston, 'New Zealand at the Crystal Palace', pp. 82-85.
- 80 *Official Descriptive and Illustrated Catalogue*, vol. 2, part IV, pp. 977-87.
- 81 *Ibid.*, p. 972.
- 82 *Ibid.*, p. 952.
- 83 *Observer*, 19 May 1851.
- 84 See Hinsley, 'The World as Marketplace', p. 345; McClintock, *Imperial Leather*, p. 59.
- 85 Blanqui, *Lettres*, pp. 90-91.
- 86 Tallis's *History and Description of the Crystal Palace*, vol. 2, p. 83.
- 87 On the growing focus on empire in exhibitions after 1851, see Hoffenburg, *An Empire on Display*. In 1862, for example, 'the colonial exhibits were more impressive because both imperial and colonial commissioners made greater efforts to include the colonies after 1851' (p. 8).

88 Cited in Auerbach, *Great Exhibition*, p. 101; Valon, 'Tour du monde', p. 220.

89 See, for example, Tallis's *History and Description of the Crystal Palace*, vol. 1, p. 195; Blanqui, *Lettres*, pp. 176, 191-92, 256-58. See also Stephen Wildman, 'Great, Greater? Greatest??: Anglo-French Rivalry at the Great Exhibitions of 1851, 1855 and 1862', *RSA Journal*, vol. 137 (September 1989), pp. 660-64.

90 *Exposition universelle de 1851, Travaux de la commission française sur l'industrie des nations*, vol. 4 (Paris: Impr. Imperial, 1854), pp. 39-42, citation on 41.

91 'The End of the Exhibition', *Observer*, 13 October 1851; Henry Mayhew, 'The Great Exhibition. Third Article. Of the Raw Materials', A Collection of Newspaper Cuttings of the Years 1850, 1851, National Art Library, Victoria and Albert Museum, London, 1890.b.19

92 'Smes'. Londonskaia vseмирnaia vystavka', p. 36.