

Available Online at ESci Journals

# **Journal of South Asian Studies**

ISSN: 2307-4000 (Online), 2308-7846 (Print) http://www.escijournals.net/JSAS



## COLONIAL GARDENS AND THE VALIDATION OF EMPIRE IN IMPERIAL INDIA

Christopher V. Hill\*

Department of History, University of Colorado, Colorado Springs, United States.

#### ABSTRACT

Deccan gardens in South India during the Islamic period (1206-1756) frequently had an Edenic quality about them. As noted by Flatt (2007), Hanaway (1976), and Inden (2007), among others, the design often represented aspects of the supernatural or paradise, with representations of the pleasures of this life and the forthcoming joys of the afterlife. The garden often served a symbolic function, in that it represented the divine recognition of the temporal authority of the Sultan. British gardens in the Deccan in fact had a similar symbolic purpose. The legitimacy of British rule, as represented by the garden, rested not in divine authority, however, but in the power drawn from the Enlightenment. Reason, in the form of science and technology, increasingly became the proof that the British faced a divine mission as well: to civilize the savage. No place represents this ideal better than the Victoria Gardens in Bombay. While the gardens focused on nature, it was a nature to be understood and classified, not to be enjoyed for pure aesthetics. Under the leadership of Sir George Birdwood, the Victoria Gardens became a museum for British enlightenment and scientific justification for rule. Included in the gardens were the Victoria and Albert Museum, a botanical garden, and a zoo. Plants were imported from around Asia, Africa, and the Americas, not for their beauty, but for cataloguing. The museum, which formed the central focus of the gardens, categorized types of South Asians through tiny models, along with catalogued examples of Indian craftsmanship. In short, in a Linnaean fashion, the gardens were there for colonial study and a superior representation. As one colonial administrator noted, the gardens were "one of the greatest boons which England could have conferred on India" (Nicholson, 2007).

**Keywords**: Archeology, George Birdwood, Bombay, capitalism, Deccan, ecology, Enlightenment, imperialism, Linnaeus, Perediniya Gardens, Sultanate, Victoria Gardens, Gilbert White.

The study of Deccan gardens has naturally focused on the great gardens of the Sultanate nobility (ca. 1206-1526). As enthusiasts have shown, many of the Islamic gardens of the Deccan nobility differed greatly from those throughout the Muslim world, including those of their sometime allies the Mughals to the north. Along with these differences, however, were some similarities that defined such gardens throughout South and West Asia. The practice of horticulture, for instance, was endemic, for several reasons. First, the general aridity of the regions made it extremely difficult to produce a verdant garden without careful preparation. Second, the colorful, breezy and cool gardens provided a pleasurable counterpoint to the dusty plains, and as such careful planning was crucial to produce the desired effect.

\* Corresponding Author: Email ID: chill@uccs.edu

 $\hbox{@ 2013 ESci}$  Journals Publishing. All rights reserved.

Finally, since the garden's purpose was to represent paradise, its charm and beauty were crucial to the owner. This last point is particularly important, for the garden was not simply a place of pleasure, but, for rulers at least, a symbol of religious validation and thus a sign of righteous earthly authority (Ettinghausen, 1976).

Colonial responses to the Islamic gardens and monuments that the British came to control in the nineteenth century primarily revolved around the concept of "improvement." As Yuthika Sharma has noted, "...from its inception the term 'archaeological garden' discounted any historical veracity about the nature of archaeological sites prior to their acquisition of archaeological agencies in colonial India....Approaching conservation from a primarily visual standpoint, conservationists saw a restored monument as incomplete, unless the surroundings were modified to showcase its antiquities" (Shama, 2007). In essence, the

colonial government changed the landscape to reflect the accepted Eurocentric view of how monuments should be curated. Perhaps no other example is more visually instructive of this practice than the introduction of lawns into many of these gardens. As Lord Curzon boasted in 1904, the gardens in the Taj Mahal complex had been improved; from "dusty wastes and a squalid bazaar, a beautiful park had been added" (Raleigh, 1906).

The colonial authorities, then, while acknowledging the archaeological value of many of the compounds, disparaged their legitimacy as examples of pre-colonial authority. By renovating the gardens surrounding the archaeological wonders of South Asia, administration was, in a very real sense, co-opting these exhibitions as their own. By Europeanizing the landscape, the government was able to obliterate the Edenic qualities of the gardens, thus destroying the visible religious authority inherent in the Islamic gardens. Ironically, however, when the British built their own public gardens, they initiated projects that were as imbued with religious and secular validation as heavily, if not more so, than did the Sultans in the Deccan. In the British gardens, Islam was replaced by the religion of the Enlightenment.

The Enlightenment's influence on the West's perception of nature can be seen in far too many ways to detail in this paper. For my purposes, I will concentrate on two views expanded by the environmental historian Donald Worster. In Nature's Economy, Worster argued that the period covering the late eighteenth and nineteenth centuries saw two primary views of the function of nature, which he called Arcadian and Imperial. The arcadian view, as exemplified by Gilbert White, the Anglican Curate of Selborne, England, reflected nostalgia for pastoralism, induced by the Industrial Revolution. With the Enclosure Acts in Britain, and the growth of cities and spread of industries, "virgin land" was rapidly disappearing when White wrote his classic Natural History of Selborne in 1789. White advocated an appreciation of nature, leading to "a simple, humble life for men with the aim of restoring him to a peaceful coexistence with other organisms" (Worster, 1977). By the turn of the nineteenth century, the "cult of Gilbert White" had developed. His work was read widely by the British in India, including by Edward Balfour, whom Richard White has suggested was "probably the single most influential proponent of the enormous forestconservation schemes pursued by the East India Company in India after 1840" (White, 1995). In Britain, the cult of Gilbert White resulted in an explosion in the number of personal gardens; in India his influence resulted in a transformation of the public garden.

The Imperial view differed markedly from that of Gilbert White, but it too was based on the sanctification of Reason as a gift from the Almighty which humans were meant to apply to their understanding of his miracle. The model for this differing perception of the function of nature was Carl von Linne, better known as Linnaeus. The Swedish botanist exemplified one of the axioms of the period: knowledge is power. He was also an extremely pious man. He believed firmly that the deity had designated humans as stewards of the earth, which included dominion over nature. The best way to understand nature, Linnaeus believed, was to organize it. His system of binomial nomenclature which classified every living organism by its unique double genus and species name, created a hierarchical pyramid of all plants and animals, with humans at the top. As Worster has noted, "his world responded with gratitude and respect; splendid botanical gardens were planted, and the cabinets of poets, curators, and kings, were crammed with specimens of nature's creations" (Worster, 1977).

Finally, Worster argues that imperial ecology, as represented by Linnaeus, was based on three prevailing assumptions. The first was a certainty that God had developed the world as a functioning machine. The concept of chaos would have been unthinkable at the time. Second was a belief that nature was fundamentally benevolent; since God had given dominion to man, nature existed to serve him? Finally, as affirmed by the biblical notion that God commanded man to name all the animals, the imperialists assumed religious authority to use the environment as they saw fit; increasingly, this meant the commodification of nature (Worster, 1977).

To this list may be added one more axiom: along with control of nature, science and technology became the other crucial factor in making Religion and Reason the validating tools of empire. As Michael Adas has noted, "control over nature made possible by Western Science and Technology proved that European modes of thought and social organizations corresponded much more closely to the underlying realities of the universe than did those of any people or society, past or present" (Adas, 1989).

In sum, the qualities that the British used to validate

empire in India included faith, reason, knowledge, a contradictory romantic yet imperial view of nature, and an intense focus on the development of science and technology. It also included capitalism. This combined philosophy of nature and empire was succinctly advocated by the nineteenth-century naturalist Johann Reinhold Forster: That immense part of the globe, India, with its isles, wants the labour of a new, accurate, and modern observer, accompanied by a faithful draughtsman, used in the drawings of natural history in order to make us better acquainted with the rich treasures of these extensive regions; and it raises in each patriotic breast the hope that, as the British Empire in India is so extensive, so much respected and its subjects there so wealthy and powerful...some of them would engage men capable of searching the treasures of nature, and examining the several objects of sciences and arts in these climates (Forster, 1995).

For the British, then, these factors defined the word "civilized" in the nineteenth and twentieth centuries. Like conquerors before them, however, they had to monumentalize these qualities for all their subjects to see, for validity depends upon ornamentalism. Nowhere was this validation better organized, planned, and displayed, than within the confines of the Victoria Gardens in Bombay.

The roots of the gardens can be found in the aftermath of the 1857 Rebellion, and the transfer of power to the Crown in 1858. Many of the wealthy residents of Bombay, organized by the Parsi community leaders, were anxious to express their loyalty to the newlyfounded Raj. The planning of a garden in her honor provided an avenue to visually and financially show their support of the monarch. As the future nationalist leader Dadabhai Naoroji noted in his closing comments to the planning committee, "With every hope and wish for a beneficent and just English rule over us for all time to come, for the progress, prosperity and peace of this country, and as an earnest of it, for success to 'The Victoria Museum and Gardens,' I conclude my remarks" (Birdwood, 1864). From its inception, the Gardens were intended as a tribute to Victoria, and, for the Indian participants, a visual statement of their loyalty.

For the colonial government, however, the Gardens provided a different motivation. While a great deal of the funding for the project was provided by the local notables, the control of planning lay firmly in the hands of British authorities. Among the various European

curators, professors, and civil servants involved the project, the undisputable visionary of the Gardens and its contents was Dr. George Birdwood.

Christopher Birdwood came from distinguished Anglo-Indian family, with his father having risen to the rank of general in the East India Company infantry. The son was born in Bombay in 1832, and, as was usual, was sent back to Britain for his education. In 1854 he was matriculated from the College of Surgeons and received a position in the medical branch of the East India Company. His first three years were spent in military units; however a month before the commencement of the 1857 Rebellion, Birdwood was appointed Acting Professor of Anatomy and Physiology at Grant Medical College in Bombay. The appointment carried with it the Curatorship of the Government Central Museum at Bombay. He remained in these two posts until poor health forced him to leave India in 1869 (Ward, 1887). Using his power as Curator of the Museum, Birdwood set about designing and building the Victoria Gardens and the Victoria and Albert Museum.

Birdwood typified the oriental's enlightenment thinker in nineteenth-century India. His goal was to transform India into a colony in which reason, logic, and knowledge "superstition" would replace as the path to enlightenment. The Gardens would thus become the classroom in which native visitor, whether peasant or nawab, would learn how to be civilized. Dr. Herbert Giraud, Birdwood's colleague the Agri-Horticultural Society of West India, defined the curator's impact as this "The [Garden], in many parts so unpromising, has been brought under tasteful cultivation; roads have been made, and the sod drained; a larger number of exotic plants have been imported into, and acclimatized in Bombay than had been introduced in the previous quarter of a century.....It is seldom indeed that extensive and accurate biological knowledge, refined taste in landscape-gardening and indomitable energy are found in a single individual" (Asiatic Society of Bombay, 1905). The emphasis on such terms as "exotic," "tasteful," and "refined" suggest that the purpose of the Victoria Gardens extended well beyond the aesthetic; civilizing nature as metaphor for civilizing natives was a clear goal in planning and landscaping the project.

Among the many organizations of which Birdwood was a member, the Linnaean Society stands out. His two best-known works, arguably, were his *Catalogue of the Economic Products of the Bombay Presidency (Vegetable)* 

(Birdwood, 1862), and Handbook on the Industrial Arts of *India*, (Birdwood, 1881). In the Linnaean tradition, these volumes were dedicated to listing as many particulars of South Asian nature and industry as possible. Such detailing, however, was not simply an example of knowledge for the sake of knowledge. Birdwood's use of the term "economic products" is instructive. Rather than describing the vegetation of the Bombay Presidency, Birdwood was primarily interested in uncovering the monetary value of the various vegetables of the region. For, as Worster has succinctly noted, "the ecology of the Linnaeans dovetailed neatly with the needs of the new factory society....It was a kind of culmination of the imperial tradition that had long made nature subservient to man's needs and reasons" (Worster, 1977). The equation that Worster describes can be seen in the articulation of the Gardens' landscaping and structure.

Early discussions regarding the design of the Gardens centered on the Islamic concept of *charbagh*, or "four gardens," each enclosed by walkways. This soon gave way however, to the model of the Royal Botanical Gardens, commonly known as the Peradeniya Gardens, in the former kingdom of Kandy, in Sri Lanka. The Peradeniya Gardens dated back to the fourteenth century as a temple site and wildlife reserve for the nobility. In 1820, five years after the British conquest of the kingdom, the colonial government decided to turn the reserve into one of the earliest botanical gardens in South Asia (Trimen, 1883). As such, from its inception the garden's function was based on a Linnaean belief of the utility of nature.

The Gardens incorporated 33 acres of the Mount Estate, in the Byculla neighborhood of south Bombay. Within the estate were 2.5 miles of sanded roads, leading from the main entrance. At the intricate gateway opening into the Gardens was a wide, heart shaped pair of roads, lined by palms, designed specifically to copy the Peradeniya entrance. The two wide lanes merged in front of the Victoria and Albert Museum, which was intended to fulfill the role that a central fountain might play in a Sultanate garden. The cul-de-sac in front of the museum was further widened to provide parking space for 75 carriages and teams (Birdwood, 1864).

In the center of the heart-shaped road was an oasis containing a magnificent clock tower? 65 feet in height, its design showcased the mechanical workings of the instrument. Such a view of the inner machinery was

conspicuous and intentional. At the time of the Garden's construction, Enlightenment reasoning focused on nature as a mechanical whole, functioning as a well-oiled machine By placing the clock tower at the center of the entrance, with the Museum to the immediate north and the gardens to the south, the committee envisioned a distinct connection between nature and Western reason. The main road neatly divided the Gardens into its two original sections: the gardens, and the Museum, which included a collection of material known as "the exotic shed." At the convergence of the two roads entering the Garden, the local elite, most notably the Gaekwar of Baroda, had donated a large, ornate statue of a seated Queen Victoria. Other monuments included a statue of Sir Bartle Frere, Governor of Bombay, a bust of Lady Frere, and a Greek temple (Birdwood, 1864).

The gardens themselves were surrounded by an ornamental border, with flowers distributed according to color. Among the common flowers which were various arranged in designs were petunias. chrysanthemums, zinnias roses, and begonias--all familiar to the common English garden. Interspersed among the flowers were numerous fountains and benches (Birdwood, 1864). The flower beds were watered from the Vehar Water Works, the water from which was normally reserved for human consumption (Ramanna, 2002). In short, the flower gardens were intended to duplicate a typical English garden. As Lady Frere said at the dedication of the Gardens: "I hope that many of my friends amongst the young native ladies around me will realise the pleasure which English ladies find in their gardens and which no lady in her dominion enjoys more than Her Most Gracious Majesty, whose name the Gardens will in future bear" (Frere, 1864).

The rest of the garden was concerned with those rare plants which could naturally survive in a Bombay garden. An attempt was made to plant a large number of seeds from England, with disappointing results. Other seeds and plants were purchased or donated from six of the seven continents. Countries represented included Zanzibar, Switzerland, Brazil, Australia, and the United States The overall intent was to provide a garden which was as English as possible, but which also experimented in growing plants and flowers from a wide variety of climates. To protect these non-native species from Indian nature, flying insects, kites, all snakes and caterpillars were to be destroyed. Worms, on the other hand, were spared. Fruit trees, which included date,

plantain, custard apple, and mango, were to be rented out, as were the jasmine and rose flower beds.

For George Birdwood, however, the central symbol of the Enlightenment was in the northern section of the Gardens: The Victoria and Albert Museum, and the adjoining exotic shed. From its inception, the museum was intended to promote industry and capital in India. As Birdwood described it, "the Museum will not be a museum of natural history...but it will be a museum of Indian raw products and manufactures and arts, and its curators will direct their original investigations in natural history so as to further the economic interests of the country" (Birdwood, 1864). Birdwood had little interest in the artistic tradition of India; rather, his focus turned directly to organizing nature and labor with an eye to profit. For this purpose he hired four curators-botanical, zoological, geological and chemical--"with the especial object of aiding the economic progress of the country" (Birdwood, 1864).

To this end, he hired renowned architect William Trace to design a building that would represent his dual concerns of industrialized nature and European reason. Tracey's museum was built in the Palladian style, a neoclassical form popular throughout Europe in the nineteenth century. The interiors were Gothic, with the walls and ceilings stucco, and covered in stencil work. The floor was covered with Minton tiles, ordered from Staffordshire. Throughout the museum the rooms were highlighted by stained glass, gold leaf, and elaborate wood carvings. A wrought iron staircase led to the second level (Nicholson, 2007) which had a reference collection that eventually numbered four thousand volumes.

The exhibits themselves were not nearly so artistic, since they were intended to promote craftwork and agricultural production. Models of hard-working villages filled display cases, as did the inventory of profitable handicrafts. Among the items exhibited were fibers from coastal Karnataka, woods from northern Konkan, various koftgari inlaid works; a sandalwood table from Koompta, and soapstone from Agra. The Rao of Cutch donated an entire display which included an inlaid rifle, boxes made of ivory, ebony, and stone, sandalwood models, and silk clothing. These all represented the possibilities for increased revenue for the Rai.

To the west of the Museum lay the exotic shed, which was arguably Birdwood's greatest paean to Linnaeus.

Plants, flowers and trees from across the globe, including those from more than sixty countries, were displayed. A few examples will give an indication of how broadly inclusive the standing exhibit was environed from its conception. The original collection included lemon verbam shrubs from Peru; mountain roses from the West Indies; passion flowers from the United States; boswellia from the Arabian Peninsula; cinnamon from Zanzibar; gardenias and hydrangeas from China and Japan; and Australian cheesewood. Adjoining the shed was a grove which contained mahogany from the West Indies, bamboo from China, buttonwood trees from Florida, and sausage trees from tropical Africa. The collection was matched by but a few in the world; within the confines of India, the Bombay exhibit could only be matched by that in Calcutta (Birdwood, 1864). In 1894, almost as an afterthought, a decaying elephant from the Elephanta caves was added to the compound.

George Birdwood was also a great enthusiast of grand exhibitions. Beginning with Prince Albert's Great Exhibition in 1851, world exhibitions had become a popular means to showcase the achievements of the West, using exhibits from the colonies as the counterpoint to demonstrate European superiority. Birdwood was a great promoter of such exhibits, acting as Commissioner from the London International in 1862 through the Paris Universal in 1889 (Hoffenberg, 2003). Such was his esteem that he was commissioned to write the *Handbook to the British India Section, Paris Exhibition of 1878* (an exhibition to which Richard Temple, the Governor of Bombay, was a Commissioner).

Exhibitions, whether international, national, or regional, played a major role in promoting Enlightenment philosophy and the use of reason as validation for empire. "Exhibition Wallahs," as the Commissioners came to be known, fortified their position in the hierarchy of superiority with each exhibition they attended. As Peter Hoffenberg has noted, British India's commissioners organized and oversaw some of the largest and most ambitious display during the nineteenth century (Hoffenberg, 2003). Birdwood, and by extension the museum, were at the forefront of this trend, and this is not surprising. As Hoffenberg astutely notes, "The South Asian officer's participation at the overseas exhibitions and travels in England and Europe as an 'expert' on Indian economic and cultural products gave him direct and personal familiarity with, and placed him astride, the two worlds of empire and colony, metropole and periphery." To this end, the commissioners in general, and Birdwood in particular, were 'manufacturing the Indian past" (Hoffenberg, 2003). One look at the emphasis on stereotypical Indian handicrafts at the Gardens shows the determination on Birdwood's part to exhibit an India that he wished to see, rather than the "indolence" that surrounded him.

The last great addition to the Victoria Gardens, one that fit well into the logic behind the project, was the Bombay zoo. Linnaeus himself was inspired to form his taxonomy by spending time at the Swedish Royal Zoo; indeed, his time spent observing the animals led him to observe that differences should be defined by "internal anatomy rather than outward appearance" (Velte, 1996). The evolution of the menagerie to the post-Enlightenment zoological garden was mirrored in the change of using enclosures for experiments in breeding to studying nature's creatures.

The zoo also became the symbol of humankind's dominance over nature and its position in the hierarchy of living things. While they were products of the evolving interest in natural history and Linnaean classification, zoological gardens were more than that. They were, in very real terms, metaphors for European superiority. As David Hancocks astutely notes, "today's zoological gardens, though tapped into historical roots as deep as civilization, are in truth grafted onto a Eurocentric and essentially English concept that is only two hundred years old" (Hancocks, 2002).

With his experience with exhibitions, and his belief in the superiority of European reason, George Birdwood was well aware of the symbolic importance of the zoological garden. The menagerie became an addition to the Gardens in 1864, only two years after the laying of the headstone for the garden and museum. In 1889 the Gardens officially became a botanical and zoological garden.

Large donations immediately began to pour in for the menagerie. The Bombay Tramway Company gave Rs. 10,000 for a bear cage and various parrot cages. The Nawab of Jaganath gave Rs. 2500 for a cage for large carnivores, only to be topped by the Maharaja of Bawanagar, who supplied Rs. 4000 for various cages for small carnivores. A Dr. Petit provided the funds for an aviary. By 1912 the zoological gardens held 64 mammals, 83 birds, and three especially rare giant land tortoises. All were studied and catalogued, as Birdwood had intended (Kisling, 2002).

Sadly, the zoological garden did not long remain a centerpiece of the Victoria Gardens, and soon fell under neglect. Animals were poorly fed and sheltered, some starved. As Bombay became more polluted, the animals were further affected by reparatory problems. Finally, in March 2008 the Central Zoo Authority approved a Rs. 434 crore zoo improvement plan (*The Indian Express*, 2008.) That such a plan took a century to appear, despite repeated demands that the welfare of the animals was in danger, may in part be due to the decline of interest in Linnaean taxonomy.

### **CONCLUSION**

With the addition of the zoological gardens, Birdwood's vision was complete. The garden fulfilled its promise of representing the perfect English Garden. The museum showed the mastery of the European people in terms of knowledge and reason. The zoo emphasized enlightened man's control of nature; as Harriett Ritvo notes, "the most powerful visual expression of the human domination of nature was the sight of large carnivores in cages" (Ritvo, 1996).

George Birdwood was not interested in the aesthetic pleasures of the Gardens; his focus was aimed at the economic potential of the various crafts and agriculture of India. Thomas Metcalfe notes Birdwood's disdain for Indian art: "Birdwood asserted that he had never 'through an experience of seventy-eight years' found any Indian art that sought to give 'perfected form to the artist's own ideal of "the good, the beautiful, and the true," and went on, in one memorable phrase, to compare an image of the Buddha to a 'boiled suet pudding'" (Metcalf, 1989). Clearly, this was not a man who wished to showcase the artistic history of India.

Birdwood's, and by extension the Gardens', focus could be summed up in one word: taxonomy. The hierarchy culminating with European man was on display in all three sections of Victoria Gardens. The garden itself showcased the ideal, genteel garden. The Victoria and Albert Museum showcased reason and knowledge in the form of gathering and classifying plants from around the world. The Byculla zoo demonstrated man's dominion over nature. At the top of taxonomic hierarchy, of course, lay the enlightened, Western human being.

The great Deccan gardens of the Sultanate period were established, at least in part, to validate rule by worshiping God. The colonial garden, however, was built as a visual expression of the superiority of Europe. To this extent, it was built to worship man's intellect, as

given to the lucky few by God. A better symbol of empire as defended by the Enlightenment would be difficult to find.

#### REFERENCES

- Adas, Michael. *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance*. Ithaca: Cornell University Press, 1989, 7.
- Asiatic Society of Bombay. *Journal of the Asiatic Society of Bombay: Centenary Memorial Volume.* Bombay: Asiatic Society of Bombay (1905): 357-358.
- Birdwood, George C. M. Report on the Government Central Museum and on the Agricultural Society of Western India for 1863: With Appendices, Being the History of the Establishment of the Victoria and Albert Museum and of the Victoria Gardens, Bombay. Bombay: Government Printing Press, 1862.
- Report on the Government Central Museum and on the Agricultural Society of Western India for 1863: With Appendices, Being the History of the Establishment of the Victoria and Albert Museum and of the Victoria Gardens, Bombay. Bombay: Government Printing Press, 1864, 1-11, 97-119.
- Report on the Government Central Museum and on the Agricultural Society of Western India for 1863: With Appendices, Being the History of the Establishment of the Victoria and Albert Museum and of the Victoria Gardens, Bombay. Bombay: Government Printing Press, 1881.
- Frere, Lady. quoted in Birdwood, George C. M. Report on the Government Central Museum and on the Agricultural Society of Western India for 1863: With Appendices, Being the History of the Establishment of the Victoria and Albert Museum and of the Victoria Gardens, Bombay. Bombay: Government Printing Press, 1864, pp. 57-58.
- Forster, Johann Reinhold. "The Beginning of Global Environmentalism: Professional Science, Oceanic Islands and East India Company 1768- 1838." In *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origin of Environmentalism 1600-1860*, by Richard H. Grove. Cambridge: Cambridge University Press, 1995, 329-330.
- Hancocks, David. *A Different Nature: The Paradoxical World of Zoos and Their Uncertain Future.*Berkeley: University of California Press. 2002, 17-18.
- Hoffenberg, Peter H. An Empire on Display: English, Indian, and Australian281 Exhibitions from the

- *Crystal Palace to the Great War.* Berkeley: University of California Press, 2003, 45, 55, 155.
- Kisling, Vernon N. Jr., Zoo and Aquarium History: Ancient Animal Collections to Zoological Gardens. London: CRC Press, 2002, 270.
- Metcalf, Thomas R. *An Imperial Vision: Indian Architecture and Britain's Raj.* Berkeley: University of California Press, 1989, 160-161.
- Nicholson, Louise. "Mumbai's Story." *Apollo: The International Magazine for Collectors* (London). November 2007.
- Raleigh, Thomas, ed. Lord Curzon in India: Being a Selection from His Speeches as Viceroy and Governor-General of India, 1898-1905. London: Macmillan and Company, 1906, 198. See Sharma for more on this phenomenon.
- Ramanna, Mridula. *Western Medicine and Public Health in Colonial Bombay,* 1845-1895. Hyderabad: Orient Longman, 2002, 85-86.
- Ritvo, Harriet. "The Order of Nature: Constructing the Collections of Victorian Zoos." In *New Worlds, New Animals: From Menagerie to Zoological Park in the Nineteenth Century,* edited by R. J. Hoage and W. A. Deiss. Baltimore: John Hopkins Press, 1996, 47.
- Sharma, Yuthika. "Of Sultanate and Mughal Follies in English Gardens: Archaeology, Tourism, and Landscaping Historic Sites at Delhi (1849-1936)." Unpublished manuscript, 1-8. Quotations may be found on pages 1 and 6.
- The Indian Express, March 5, 2008.
- Trimen, Henry. *Hand-Book to the Royal Botanic Gardens, Paradeniya.* Colombo: Government Printing
  Office, 1883, 1-6.
- Velte, Thomas. "Menageries, Metaphors, and Meanings."
  In New Worlds, New Arrivals: From Menagerie to
  Zoological Park in the Nineteenth Century, edited
  by R. J. Hoage and William A. Deiss. Baltimore:
  The John Hopkins University Press, 1996, 26.
- Ward, Thomas Humphrey. ed. *Men of the Times: A Dictionary of Contemporaries.* London: George Routledge and Sons, 1887, 111-112.
- White, Richard. *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism,* 1600-1860. Cambridge:
  Cambridge University Press, 1995, 262.
- Worster, Donald. *Nature's Economy: A History of Ecological Ideas*. New York: Cambridge University Press, 1977, 2, 32, 50-51, 53. For more on Gilbert White, see Chapter 1 of this volume.