

Reviews

RICHARD H. GROVE, *Green Imperialism. Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1660*. Cambridge: Cambridge University Press, 1995. 540 pp. incl. bibliography, index and 23 illustrations, £ 45.00 (\$ 64.95). ISBN 0-521-40385-5

This book is difficult to classify. The history of science certainly occupies large parts of it, but to thus categorize Grove's extensive study would be to do it a disservice. The East India Company's 19th century environmental and forestry policy is treated as is the history of botanical gardens outside Europe. Furthermore, pride of place is given to the standard bearers of environmental history who elevated public consciousness. The history of ecology has been very much influenced by the experiences of botanists, natural philosophers and medics in the tropical colonies.

Grove's thesis is that environmental consciousness developed in the tropical islands in the course of European expansion, finally coming to maturity in India. Besides Mauritius, the ecological significance of St. Helena, St. Vincent and the Cape of Good Hope serve to demonstrate the argument. Colonial exploitation of the islands very soon brought about the first environmental damage. After extensive deforestation to make room for crops, the first signs of erosion appeared. Contemporary observers also noted a decline in precipitation. This led to the first formulations of desiccation theory.

In the 17th century, landscape gardening was linked to the artificial creation of paradise: the garden of Eden. The grounds of Heidelberg castle (Hortus Palatinus) are one of the most striking examples of this concept. The islands in the Atlantic and Indian Ocean represented the ideal vision of a garden as an independent entity. This *Inselwelt* represented the Renaissance notion of a perfect world, created by human beings, as well as the attitudes of the Romantic period. The idea of an island as a garden of Eden awaiting creation alerted early environmentalists. As Grove says: "[...] the hard reality of the destructive impact of metropolitan capitalism on the tropical island at the European periphery served to demonstrate the contradiction between capitalist development and preservation of the paradisaical vision. It was in the context of this contradiction and of the realization of it that colonial conservationism began to develop." (p. 72)

Garcia da Orta's botanical system (*Coloquios dos simples e drogas he cousas medicinas da India*, Goa 1563) and Hendrik van Reedes tot Drakenstein's work (*Hortus Indicus Malabaricus*, Amsterdam 1678-93) integrated ethnobotanical knowledge, as found along India's Malabar coast. But it was not brahminical knowledge which was recorded, rather that of the lower social groups. The different islands, on the other hand, became the botanists' laboratories, where they cultivated crops (pepper, spices and fruit) in addition to making their theoretical observations. The new discoveries were immediately evaluated in the universities of Europe. At the same time in the 17th to 18th centuries a network of botanical gardens gradually developed in Europe and beyond, which became significant expressions of European knowledge and power. The Dutch were the pioneers in this field, but it was the British who made them a global institution.

One of the outstanding characters in this process was Pierre Poivre (1719-1786), who travelled as a 'philosopher' to South and South East Asia between 1747 and 1770. Richard Grove devotes an entire chapter to him. (ch.5, pp.168-263) Poivre is the first person to grasp on the one hand that the island of Mauritius, where he stayed from 1763 to 1772, was an enclosed world, and who on the other hand wanted to develop the island into a scientifically based nursery. Concerned by the island's ecological decline, he sought to take countermeasures. Yet he simultaneously realised that to achieve his aims a large amount of painstaking consciousness-raising work would have to be done amongst the colonisers in order to change their attitudes. It was a committee of enquiry led by Philibert Commerson and set up by the French state which eventually passed the 1769 "Règlement Économique". The first forest protection measures were introduced. The English government's 1765 decree protecting the forests of Barbados is supposedly older, but this was only passed to secure resources, and was not based on ecological discoveries.

The sum of achievements, however, remained modest. "Despite the onset of the Revolution and a British blockade of Mauritius, coffee and tea plantations continued to be developed on the island in the face of official discouragement. Forests also continued to be cleared for agriculture." (p.255). But on the other hand Grove believes that "the sheer speed of ecological change induced by capital-intensive agriculture in the tropics acted to intensify the crisis in environmental perception" (p.262). It is here that individuals such as J.R. Forster and his son Georg Forster, as well as Alexander von Humboldt gain central importance. They succeeded in extending the hitherto vaguely formulated desiccation theory, which only seemed to apply locally, to a regional and, later, to a global level. The connection between the "Göttinger Schule" and the Scots universities formed the basis of further development in ecological awareness.

Many of the East India Company's surgeons were trained at German or Scots universities where they became acquainted with the up-and-coming 'natural philosophers'. These medics and early natural scientists took Humboldt's ideas with them to India. Words of warning were sent to Calcutta and London concerning the demonstrable natural deterioration. Yet the first attempts at forest management on the Malabar coast were stopped in 1823. It was to take a further twenty-five years for concrete forest protection measures to be introduced. Teak planting programmes were extended under the leadership of Robert Kyd and William Roxburgh, both heads of the Botanical Gardens in Calcutta (1786-1813 and 1813-1823 respectively). But for all that, and Grove misses this point, the plantations were neglected and the Revenue Collectors in the Districts of Bauleah, Sylhet and the Mahal jungle reported upon their pitiable state in the mid-1820s.

Richard Grove conveys the impression that the creation and development of conservation policy and environmentalism peaked in the British Indian government's Forest Acts of 1865 and 1878. But the globalisation of the exploitation of resources was already far more advanced. Thus the first world war's enormous consumption of wood initiated the "Imperial Forest Conferences" of the 1920s. If one considers that our knowledge of ecological interdependence has not progressed much since Humboldt's time, the botanists' and medics' influence must be questioned. Furthermore, given that botanists were also involved in the propagation of cash crops like cotton, and that they replaced north India's perennial cotton bushes at the end of the 18th century, thereby causing additional soil exhaustion, the question surely arises whether these botanists were not more involved in the over-exploitation than in the conservation of natural resources.

Conservation policy during the 19th century declined to a politics of forest maintenance. Regrettably, the colonial regime only acted when environmental damage threatened the supply of raw materials. The reader sometimes misses a more critical evaluation. That apart, Grove's 'Green imperialism' is a work of scientific literature which can be recommended as essential reading to anybody concerned with environmental history and ecology during European global expansion between 1600 and 1860.

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