

Roots of Imperial Botany: The Utilization of Wardian Cases and Botanic Gardens in Establishing British Economic Hegemony in the Victorian Era

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Introduction

The British Empire at its peak was the foremost political and economic powerhouse of the world. While attributed to many different factors, one of the largest involves the economic value of plants. From timber, cotton, spices, dyes, rubber, tea, and cinchona; the British colonial economy was reliant on the successful growth and exploitation of a diverse group of plants. In order to accomplish this, the British were reliant on their vast colonial network and the means of transporting economically valuable plants between them.

A Network of Science and Economics: Botanical Gardens



Figure 1: Map highlighting the connections between Kew and Colonial Botanical Gardens

As the British Empire grew, the expertise needed to coordinate the growth and distribution of plants grew along with it. The Royal Botanic Gardens, Kew became a nexus of distribution, both in knowledge as well as physical distribution of plants¹. Various seeds, cuttings, and live plants from expeditions were sent to Kew to be germinated, studied, and then dispersed to colonial gardens to then be sent to plantations to begin production². Often Kew trained botanists were put in charge of these colonial gardens, all answerable to the Director at Kew.

Wardian Cases: Vessels of Plant Transport

In 1829, Nathaniel Bagshaw Ward accidentally discovered that when plants were kept in airtight cases, the water within was able to cycle, keeping the plants within watered.³



Figure 2: Horticulturist packing a Wardian case before transport.⁴



Figure 3: Reproduction of a portrait of N.B. Ward.⁵

Following this discovery, the first overseas test was conducted in 1833 with the shipment of ferns, grass, and flowering plants to Sydney, with the cases arriving in good condition with the plants blooming.⁶ This success kicked off the practice of using Wardian cases to ship plants around the world. Including the first tea plants to India, cinchona from Peru, and rubber from Brazil.²

Conclusions

The discovery of the utility of Wardian cases in long range plant transportation coupled with the establishment of a network of colonial botanical gardens led to the rapid development of an economic base on which the British Empire soared to its peak. However, the results of this expansion are still being dealt with today, with both the socioeconomic factors of decolonization coupled with the environmental effects of such a dispersal of non-native plants to various regions.

Bibliography/References:

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- 3 Ward, N.B. *On the growth of plants in closely glazed cases*, RBGKew Library, 1842.
- 4 "Photograph of a horticulturist packing a Wardian case before transport" Photographer unknown, RBGKew, c1930.
- 5 "Reproduction of a Portrait of N.B. Ward" Photographer unknown, Wellcome Collection, 1931.
- 6 Ward, Stephen Henry. *On Wardian cases for plants and their applications*, RBGKew Library, 1854.

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