

THE ROLE OF BOTANIC GARDENS FROM THE PAST TO THE PRESENT: SCIENCE AND LEARNING

SIMON THORNTON-WOOD

Director of Science & Learning, Royal Horticultural Society, UK

Botanic gardens seek to respond to the issue of our time. Today, there is a focus on plant conservation – naturally, given the lack of other effort to document rapidly declining biodiversity – but perhaps there is an equally, or more important agenda for our public gardens in engaging society with the challenge of climate change: adaptation and mitigation.

We live in an environment of change: coping with extremes of climate, in which water (in particular) is increasing in value. But social change is another dominating factor: migration, social diversity, and disengagement from experience of the natural world.

The International agenda for Botanic Gardens in Conservation (2000) sets out a mission that may be summarised as stemming the loss of plant species, and preventing the further degradation of the world's natural environment. Climate change must bring a fresh sense of urgency to this agenda – but couched more in terms of creating and managing the environment that we need for survival.

Botanic gardens cannot work alone in this mission. The idea of a botanic garden as a repository is only effective if its plant material, and its ideas, are exchanged freely: links with the horticultural trade, with gardeners, can be at the forefront of this. The RHS, with its roots in amateur and trade horticulture, is well placed to take a lead.

Chiswick & Kensington Gardens

In 1804, John Wedgwood was to become a founding father of the Horticultural Society. He proposed 'that the object of this society should be to collect every information respecting the culture and treatment of all Plants and Trees, as well culinary as ornamental'. Wedgwood and his colleagues never envisaged a garden for the society, but he was passionate about the need for such a learned society to come together: 'I think these objects underpin that which is so desperately needed today...'.

The need for a garden to support the mission of the Horticultural Society was soon appreciated. Plant material had flooded into the Society from the start, in fulfilment of the original aspirations of Wedgwood. Thomas Andrew Knight, who would become the second President of the Horticultural Society in 1811, was already concerned in 1805 that a garden should be found to put the society's thoughts into practice. The new garden, in Knight's view, would be used to trace the origins of cultivated plants, the limits of acclimatisation of exotics, the breeding of new fruit varieties, the improvement of greenhouse construction, and research into the properties of soils and fertilisers. All matters of concern for the RHS today.

From that time, the Horticultural Society's fortunes were charted in the fortunes of its gardens.

Gardens of the Horticultural Society of London (from 1860, the Royal Horticultural Society)

1818-1822

Kensington, 1.5 acres

1822-1904

Chiswick, 33 acres

1861-1888

Kensington, c.20 acres

1903

Wisley, 240 acres

1988

Rosemoor, 65 acres

1993

Hyde Hall, 24 acres+

2001

Harlow Carr, 58 acres

In 1826, The Horticultural Society's garden at Chiswick was observed to have "accumulated within its bounds all the most rare and valuable productions of the vegetable world". But even in 1829, the garden was criticised publicly for its focus on rare plants, above concerns of taste and design. The lack of formal design in particular became a real impediment by the 1840s.

The Royal Botanic Gardens at Kew were, by contrast, something of a private fiefdom at this time, for Joseph Banks. But there followed decline and cancellation of his plant collecting expeditions around the world. From 1885, the focus was truly imperialist and outward-looking – the business of accommodating the burgeoning knowledge and plant products of the British Empire.

With Royal patronage in 1860 came a zeal for design of an enclosed urban garden, with considerably less attention to the horticulture. This vision took life in Kensington, where statuary became a focus. The Chiswick garden decayed and drifted out of focus. While the RHS went adrift in this sense, botanic gardens were starting to find a directed purpose in UK.

RHS Garden Wisley: the twentieth century and beyond

Wisley was adopted in 1904, the generous gift of Thomas Hanbury. For the first time, the RHS had the opportunity, beyond the immediate confines of space and social constraint, and (more prosaic) London pollution, to develop a garden that expressed the full range of its interests and concerns.

Wisley is a complex garden today, and its purpose never more significant to the diverse society that it serves. Its ornamental plant collection is one of most extensive and best documented in the world. Its fruit collections and trials have engaged with significant public interest in the past five years. The trials field engages people in the process of cultivated plant selection, and the understanding of plant performance and management. And now, from 2007, a 3000m² glasshouse extends the grand Victorian glasshouse tradition.

Wisley is pre-eminent, but no longer the only RHS Garden. People don't have the access to regional botanical gardens that they have had in the past, but RHS Gardens have expanded into the regions of the UK to meet people's needs and aspirations in another way.

Wisley continues to develop its national role. We are concerned with wider social engagement, with an unashamedly more populist approach. Horticultural excellence remains the underpinning principle for the RHS, but means something very different in an age of dwindling natural resources. Plant genetic resources, in particular, have come to be viewed in very different ways by botanic gardens and the everyday gardener: there is a need for them to come together again, to help people overcome the challenges of environmental change.

RHS finds itself increasingly filling an important gap in research – neither government nor universities are addressing immediate needs of classical horticulture or botany: plant taxonomy, pest and disease taxonomy and ecology, soil science and plant physiology. With its tradition of a practical outlook for every gardener, developed over two hundred years and with great debt to Thomas Hanbury, the RHS can point the way to sustainable livelihoods in a rapidly changing environment.