Scotland and Australian botany in the colonial era

Sydney Parkinson was born in 1745 in Edinburgh, and from an early age showed a keen interest and talent in botanical drawing. In his early twenties, Parkinson was employed by Joseph Banks as a botanical draughtsman, and soon found himself aboard the Endeavour on James Cook’s voyage to the South Seas in 1768. During the voyage, Parkinson made a significant number of drawings and sketches of flora, fauna, people, and landscapes. He is a likely contender to be the first Scot to set foot on Australian soil, and is almost certainly the first European artist to have done so.

Parkinson made attempts to compile the vocabularies of the people Cook’s party met on the shorelines of Tahiti and New Holland. He was one of the first to depict the Australian landscape, environment, and people from direct observation. The Endeavour voyage would yield 30,000 plant specimens of 3600 species, 1400 of which were new to science. The scale of Parkinson’s job was immense, and he completed over 600 outline drawings on the voyage and 269 finished paintings.

The rate at which new species were discovered on the voyage meant that, much of the time, Parkinson could only partially complete illustrations. When the Endeavour was returning home from its first expedition, it anchored at Batavia (present-day Jakarta) for repairs. Here, numerous crew members contracted dysentery, including Parkinson. He died at sea on 26 January 1771.

The legacy of this young Scottish botanical artist is immense – 21 volumes of his plant drawings are held at the British Museum, and many of these are of Australian plants. Some were published posthumously, but often without
credit, in the first published accounts of the voyage. Indeed, Parkinson's work only received widespread recognition with the British Museum's publication of the *Banks Florilegium* in the 1980s and 1990s, the lavish plates of which were based upon Parkinson's illustrations and sketches.

Parkinson's work remains of utmost scientific importance, but he would not be the last Scot to make a mark in the world of Australian botany in the decades that followed Cook's expedition to the Antipodes.

**Scotland and the environmental professions**

Scots made distinct contributions to the environmental professions across the Empire, in fields including plant collecting, botany, geology and exploration. The reasons for Scots' infiltration of these profession are numerous. From at least the 17th century, medical training in Scotland, reflecting traditions in continental Europe, was connected with botanical interests and emphasised the relationships between health and the environment. An understanding of the botanical world was essential to medical training, and most Scottish doctors were well trained in the dissection, analysis and identification of plants. Many public health problems were connected with environmental solutions.

Since Scotland overproduced medical professionals, it is not surprising that many of them expanded their environmental interests during their tenure abroad in the colonies of the British Empire. Scottish missionaries were also often trained as doctors, and their combination of medical, theological, and environmental education permeated their practices and writings on overseas missions.

Further to this, from the 17th century onwards Scots became associated with gardens and gardening. Some have suggested that this is because Scotland's natural environment is so harsh, and therefore more effort was put into gardening practices. What is clear, however, is that the gardens, which serviced the medical profession's interest in plants and the environment, were integral to the development of Scots as leaders in the creation of botanical gardens at home and abroad. Scots were the key figures at Kew Gardens and the Chelsea Physic Garden in London, and founded and maintained botanical gardens across the diverse lands of the British Empire.

Joseph Banks frequently chose Scots to collect plants for his botanical pursuits — Francis Masson was sent to the Cape, for example, and botanist Robert Brown was attached to Matthew Flinders' Australian expeditions in 1802–5 — and subsequently to manage the British botanical gardens in which they were cultivated for study.

Wealthy landowners were deeply involved in landscape and garden design as a matter of aesthetics and social standing, but were also key figures in the development of forestry. Various industries had contributed to the almost-total deforestation of Scotland by the 1600s, and landowners concerned about the effect of this on a range of timber-related industries helped to make forestry a Scottish speciality. They also saw tree planting as a potential business opportunity.

In the 1700s, some of the largest estates in Scotland became involved in tree planting, which was understood to add value to land that was otherwise unproductive. This was not limited to native Scottish species, especially after the expansion of the British Empire. Taking advantage of high timber prices, particularly during the Napoleonic wars, the Dukes of Atholl planted millions of non-native conifers on their Highland estate in Perthshire during the late 18th and early 19th centuries. The knowledge of environmental conditions required of forestry meant that Scotland became known as a hotspot for advanced agronomy, in which even farm servants were skilled and literate, a circumstance not generally mirrored in England at the time.

The Scottish Enlightenment thinkers also had a great deal of interest in the environment and climate and their relationship to the development of different human civilisations across the world. When doctors, botanists, geologists and other professionals went abroad, many took with them the idea that the civilisations and cultures they encountered were products of biology and the environment. This is not to mention the prominent Scottish flavour of both hunting and wildlife conservation abroad, including the likes of John Muir.

Broadly speaking, Scottish professionals had a great deal of environmental interest and awareness, and exercised a remarkable influence at home and across the worlds of the British Empire. Australia was no exception.

**Scots and Australian botany**

In a letter to his aunt in Dumfries during 1791, Scottish convict artist Thomas Watling remarked:

> The whole appearance of nature must be striking in the extreme to the adventurer, and at first this will seem to him to be a country of enchantments. The generality of the birds and the beasts sleeping by day, and singing or catering in the night, is such an inversion in nature as is hitherto unknown.
Drummond arrived from Scotland as the government naturalist in 1829. He became an avid plant collector. ‘When his knapsack and pockets were filled with plants’, wrote Rica Erickson, ‘his white head was bared and his hat was crammed to the brim’. The thousands of specimens Drummond collected were eventually placed in 25 herbariums across the world, and more than one hundred Western Australian plants have been named after him.

The mark of Scots can also be found in Queensland – in Brisbane, a cairn was erected to honour Edinburgh-born Walter Hill (1819–1904), a distinguished botanist who was the first to granulate Queensland sugar cane in 1863. Hill worked in the Royal Botanic Garden, Edinburgh, and at Kew Gardens before arriving in Sydney in 1852.

He was first superintendent of Brisbane’s botanic gardens in 1855, and is credited with introducing mango, pawpaw, ginger, poinciana and jacaranda to the colony [ed. note: see Glenn Cooke’s article in this issue], along with mahogany and tamarind trees. Hill was also a keen advocate of Queensland’s flora and fauna, arranging for their exhibition around the world.

Back in Scotland, in the 1840s Elgin-born gardener John Dallachy (1808–71) attempted to raise Australian plants from seed for the Earl of Aberdeen. Dallachy was later appointed overseer and curator of the Melbourne Botanic Gardens in 1849. His main interest was in collecting plant specimens for the gardens, rather than the development of their landscape. He made numerous expeditions around Victoria. Botanist Joseph Maiden described Dallachy in 1908 in Records of Victorian botanists as perhaps the best Australian botanical collector ‘to whom justice has not been done’.

**Conclusion**

From the early encounters of Sydney Parkinson to the consolidation and growth of some of Australia’s finest botanical gardens, Scots were prominent in the world of early Australian botany. The list above is brief, but helps to illustrate how their interest in Australia’s natural world can be understood in the context of Scotland’s wider contributions to the environmental professions across the colonies of the British Empire.