

THE NORTHERN LADS: KEW GARDENS AND THE SCOTTISH INVASION

In the 18th and 19th centuries, a broad Scots accent would have been a common sound in Kew village due to the disproportionate number of Scots gardeners working and living in Kew Gardens. This was part of a phenomenon to be found in botanic gardens through-out England, Ireland and the British Empire. Also, on the country estates of the English aristocracy, a Scottish Head Gardener was almost de rigeur at this time. The following gives an account of the most important of these gardeners.¹

INTRODUCTION

Before the emergence of the Royal Botanic Gardens, Kew, the leading centre of botanical and horticultural science in England was the Chelsea Physic Garden. Founded in 1673, Chelsea was given added acreage in 1722 by Sir Hans Sloan, who was of Ulster Scots stock and the successor to Sir Isaac Newton as President of the Royal Society. At the same time, Philip Miller, the son of a Scottish market gardener, was recruited to take charge of the Garden, and under his inspired management Chelsea became pre-eminent. Miller received visits from current and future celebrities in the natural sciences, including Carl Linnaeus, the great Swedish naturalist, and, frequently, the young Joseph Banks, thirsting for botanical knowledge.

During his forty-eight year tenure, Miller, had a preference for employing Scotsmen as gardeners. Why should this be? According to one estimate, by 1750 Scotland had a literacy rate of 75% compared with 53% in England – the rate would probably have been even higher in the Lowlands, where most of the gardeners originated.² In 1758 a visitor to England, Alexander Carlyle, said of Scottish gardeners that ‘such advantage was there in having been taught writing, arithmetic and the mensuration of land, the rudiments of which were taught in many of the schools in Scotland’.³ An excess of population and limited opportunities at home caused many of these educated gardeners to seek employment in England (the two countries had, of course, become united in 1707). The leading English landscape gardener of the day, Stephen Switzer (d. 1745), resented their ubiquity. He characterized them as ‘the northern lads who invade these southern provinces’ and described them as having ‘rough tongues and uncouth manners’.⁴ Switzer’s campaign against them, however, failed to stem the tide.⁵

One of these invaders was a bright young man from Lanarkshire called William Aiton. In 1759, after four years under Miller at Chelsea, he took up a position with Augusta, Dowager Princess of Wales, under the direction of his fellow Scotsman, John Stuart, 3rd Earl of Bute. Aiton’s role was to “form and arrange a botanical garden” at the north end of Augusta’s Kew estate.⁶ This is regarded as the official beginning of what would become the Royal Botanic Gardens, Kew.

BOTANIC GARDEN, KEW⁷

Gardeners in charge of the Botanic Garden

The Earl of Bute, as unofficial (i.e. unpaid) Director at Kew, was responsible for landscaping, plant acquisition and staff recruitment.⁸ He also introduced the then largely unknown architect, William Chambers – born in Sweden of Scottish parents – to Princess Augusta. Chambers designed the first two major glasshouses at Kew – the extant Orangery and, within the little Botanic Garden, the Great Stove, which was in use for a hundred years. It is remarkable that for the first 126 years of the Botanic Garden’s existence – that is, throughout the directorships of Bute, Banks, William Hooker and Joseph Hooker – it was under the charge of a succession of Scottish gardeners, including one son of a Scot (Table 1).

Table 1. Gardeners in Charge of the Botanic Garden, Kew (1759–1886)

William Aiton, 1759–1793	34 years
William Townsend Aiton (son), 1793–1841	48 "
John Smith I, 1842–64	22 "
John Smith II (no relation), 1864–86	22 "
Total	126 "

Their job title and range of responsibility varied. William Aiton was recruited in 1759 specifically to establish a new nine-acre botanic (or physic) garden, which he organised on the basis of the then new Linnaean system. The Head Gardener in overall charge of the Kew estate at that time was an Englishman, John Haverfield. Aiton succeeded to that position in 1784, by which time George III was the owner of the estate and Joseph Banks the unofficial Director. Aiton was described as having ‘infinite merit in his management’, and the fact that the pall bearers at his funeral included such eminent figures as Joseph Banks, botanist Jonas Dryander and artist Johann Zoffany, is a tribute to the high regard in which he was held.

One of Aiton’s foreman gardeners, a fellow Scot by the name of James Donn, might have hoped to succeed Aiton, but he left instead to become a distinguished Curator of the Cambridge University Botanic Garden. In 1793 it was Aiton’s son, William Townsend Aiton, who succeeded him as Head Gardener at Kew; and in 1795 the young Aiton also became the Head Gardener in charge of George III’s neighbouring Richmond estate. George IV acceded to the throne in 1820 (the year of Joseph Banks’ death) but had little interest in the, by then, eleven-acre Botanic Garden. He made Aiton ‘Director-General of [all] His Majesty’s Gardens’ – although, for some reason, historians do not normally count him as one of Kew’s Directors – with his brother John Townsend as his deputy.⁹ The King employed William as a landscape architect at Buckingham Palace, St James’s Park, Brighton Pavilion and Windsor, so it is not surprising that the Botanic Garden deteriorated somewhat during his reign. William IV, who acceded to the throne in 1830, is thought to have harboured some kind of grudge against Aiton and demoted him to his previous role in charge of the Kew and Richmond estates only.¹⁰

During William Townsend Aiton’s tenure, the first John Smith was a foreman gardener, and it was largely due to the latter’s horticultural and botanical skills that the Botanic Garden survived the period of relative neglect. When Queen Victoria donated the Botanic Garden to the nation, it came under Sir William Hooker’s direction with effect from 1841 and Smith became its first Curator in the following year. The second John Smith, previously Head Gardener to the Duke of Northumberland at Syon Park, succeeded his namesake in 1864 and

was the Curator of the Botanic Garden throughout the directorship of Hooker's son and successor, Joseph.

Curators

As William Hooker's operations at Kew expanded in the period from 1841 to 1856, he created four new curatorial posts. In each case the first holder was a Scot or, in one case, the son of a Scot (Table 2).

Table 2. First Curators at the Royal Botanic Gardens, Kew

Curator of Botanic Garden, 1842–64	John Smith I
Curator of Pleasure Grounds (Arboretum) 1848–66	Alexander Williamson
Curator of Herbarium, 1853–64	Allan A. Black
Curator of Museums (Economic Botany) 1856–58	Alexander Smith (son of John Smith I)

Although initially granted only the eleven acres of land that contained the Botanic Garden, Hooker soon acquired a further forty-nine acres and on this he had a magnificent Palm House built. The foreman gardener John Smith, as stated, was promoted in 1842 to become the first Curator of this extended Botanic Garden, and one of his legacies would be a great improvement in the training and career prospects of gardeners at Kew. By 1848 Hooker had acquired a further 186 acres of the surrounding royal pleasure grounds, allowing him to greatly expand his arboretum. In that year Alexander Williamson was appointed the first Curator of the Pleasure Grounds (Arboretum), a post that would be merged with that of Curator of the Botanic Garden when Williamson retired. In the space of twelve years, 3,000 species and varieties were planted out in this arboretum.

In 1852 Hooker was granted Hunter House on Kew Green, which provided space on-site to house his own private herbarium and other donated herbaria. In the following year Allan Black, who had trained initially as a gardener, was appointed the first Curator of the Herbarium, a landmark in Kew's development as a scientific institution. In 1856 the first purpose-built Museum of Economic Botany (Museum no.1) was completed and some of the plant exhibits from the Great Exhibition of 1851 were housed there. Hooker attached great importance to his economic botany collection as government funding of the gardens was largely predicated on Kew's usefulness to British commerce and Empire. Alexander Smith, son of the first John Smith, became the first Curator of Museums in 1856, having already worked on the collection officially for nine years (he had started, unofficially, at the age fourteen!). For health reasons he did not remain much longer in the post but it is notable that, as of 1856, all four of Hooker's Curators were Scottish.

Plant Collectors and Nurserymen

In the eighteenth century, especially before the Banksian era of plant collectors, the plant nurseries in and around London, which specialised in importing and propagating exotic plants, were an important source of plants for Kew. Most of these had Scottish proprietors.

According to Johan Christian Fabricius (1745–1808), a pupil of Linnaeus: ‘[James Lee] is a Scot like almost all seedsmen and gardeners in and around London. The Scots have established almost a monopoly in this occupation to the virtual exclusion of the English, and the businesses are handed from one Scot to another.’¹¹ The most notable were James Gordon at Mile End and James Lee and Lewis Kennedy at the Vineyard Nursery in Kensington. James Lee, who had formerly worked as a gardener on the Whitton estate of the 3rd Duke of Argyll, was also famous for publishing the first account in English of the Linnaean system of plant classification.¹² Other Scots nurseries that supplied exotic plants to Kew in the eighteenth century included John Russell at Lewisham, William Malcolm at Kennington, John Fraser at Chelsea and Hugh Ronalds at Brentford. In the nineteenth century this tradition was continued by Hugh Low at Clapton and, most notably, the Veitch Nursery at Chelsea (founded in Devon in 1808 by Scotsman John Veitch), which was renowned for its prolific plant collectors, among them members of the Veitch family.

Sir Joseph Banks, George III’s unofficial Director at Kew from around 1767, used mostly Kew gardeners as his plant collectors. He described Scotland as ‘a nation of gardeners’ (apparently the first usage of this phrase)¹³ and favoured Scots as plant collectors because, he said, ‘so well does the serious mind of a Scotch education fit Scotsmen to the habits of industry, attention and frugality that they rarely abandon them at any time of life’.¹⁴ Banks’s successor at Kew, Sir William Hooker, had made use of numerous Scots plant collectors during his twenty-year tenure at Glasgow University, and he employed more of them when he came to Kew.

The Kew gardener/plant collectors of known nationality were disproportionately Scottish. These included Francis Masson (who collected in Europe, South Africa and North America), Peter Good (India, East Indies and Australia), William Kerr (China and East Indies), Alexander Moon (North Africa), Allan Cunningham (South America and Australia), Richard Cunningham (Australia and New Zealand), George Barclay (South America and Hawaii), William Purdie (West Indies and South America), William Milne (Africa and South Pacific) and Robert Cross (South America). I am excluding here *medically trained* Scottish botanist/plant collectors, such as Archibald Menzies and Robert Brown. These constitute a very important but separate phenomenon.¹⁵

Colonial Postings

In the nineteenth century Kew was at the centre of an informal network of colonial botanic gardens, overseeing the movement around the world of plants, information and personnel. In 1837 there were only ten functional colonial gardens, but by 1889 there were more than thirty of sufficient importance to warrant a manager of superintendent or director grade.¹⁶ Some of these gardens, like Kew, combined the functions of botanical centre and public park. Of great interest is the fact that many Kew gardeners transferred to the colonies to serve as (in ascending order of pay grade) curators, superintendents or directors in these gardens. According to Ronald King: ‘Many [Kew-trained gardeners] went overseas to serve in Empire countries and it was on them that the economic development of the Empire was built ... Kew-trained men played the key role in this work because of their training in the cultivation of a large number of exotic plants ... When the unbiased story comes to be written in future centuries, the role of these young men will be recognised’.¹⁷ From Desmond’s *Dictionary of British and Irish botanists and horticulturalists* (Desmond, 1994) and the other sources mentioned in endnote 1, twenty-one of these Kew gardeners can be identified as Scots who,

together with eleven Scots not from Kew, became managers of botanic gardens in Australia, the West Indies, India or Africa during the nineteenth century. There would undoubtedly have been others whose nationality cannot now be definitely established.

In many cases, including Sydney, Melbourne, Brisbane, Ceylon, Ootacamound, Singapore, Durban, Pretoria and Entebbe, Scots gardeners were the first to hold the post. In the same period, there were at least twenty-three botanically trained Scots surgeons (three directors and twenty superintendents) in charge of botanic gardens, mostly in the Indian subcontinent. The most prestigious gardens in India, such as Calcutta and Saharanpur, were headed at one time exclusively by surgeons, almost all of whom were Scots. One of them, (Sir) David Prain, succeeded William Thiselton-Dyer as Director of Kew in 1905 and also became President of the Linnaean Society.¹⁸ In these elite gardens, even excellent gardeners like John Scot, who corresponded with Charles Darwin, had to be satisfied with a subordinate role.

Some of the previously mentioned Kew plant collectors went on to become colonial curators or superintendents, including William Kerr and Alexander Moon (Ceylon), William Purdie (Trinidad) and the Cunningham brothers (Sydney). The Cunninghams, who were the sons of a Scottish head gardener at Wimbledon, were succeeded at Sydney by another Kew gardener, Scotsman Charles Moore (the family name had been changed from its original Scottish form, Muir). The latter served with distinction at Sydney for an impressive forty-eight years, attaining the position of Government Botanist and Director of the Botanic Garden.¹⁹ Two other Scots Kewites, John Dallachy and Walter Hill, became the first Superintendents of the Melbourne and Brisbane gardens respectively.

The above-mentioned Alexander Moon, who introduced coffee production into Ceylon, was succeeded by a string of curators with Scottish surnames, including Hugh Fraser MacMillan who was definitely another Scots born Kew gardener. Other Scottish Kewites included, in India, William McIvor who was the first Superintendent at Ootacamound and who played a key role in Kew's famous transfer of *Cinchona* (quinine) from its native South America to the Subcontinent. Meanwhile, James Gammie managed the Mungpoo *Cinchona* plantation for a period of 32 years.²⁰ Elsewhere, Nathaniel Cantley was Superintendent of the Singapore Botanic Garden (which had been initiated by another Scot, Lawrence Niven) and established other gardens at Penang and Malacca. On Mauritius, John Horne and William Scott were successive Directors of the Pamplemousses Garden. Taken over from the French, this prestigious garden reached a peak of excellence under the management of these two Scots Kewites and their predecessor James Duncan, who was also a Scot.²¹

Further examples include, in the West Indies, William Purdie and Nathaniel Wilson. Though not the first superintendents at Trinidad and Jamaica respectively (with effect from 1846 in both cases) they were responsible for successfully reviving these two flagging gardens. At Cape Town, James McGibbon was less successful, at least botanically, with a garden taken over from the Dutch, although he was in post for thirty years. At King William's Town, James Leighton and Thomas Robertson Sim were successive curators of a newer botanic garden, the latter going on to become the first Conservator of Forests for the Colony of Natal.

THE WIDER PHENOMENON

According to *L'Almanach des modes* (1816), 'almost all the gardeners employed in England are [Lowland] Scots, and you will find not one who is unable to name all the plants in Latin'.²² The above Kew-related examples were not exceptional but were part of a more generalised phenomenon of Scots gardeners making notable contributions, especially in the formative years of many organizations. Many of these were botanical institutions, where a knowledge of the Linnaean system with its Latin names would have been essential.

London Botanic Gardens

In eighteenth- and early nineteenth-century London, there were a number of organisations in the field of botany that were potential rivals to Kew Gardens. At the Chelsea Physic Garden (from 1722) at least four of the first five curators were Scots, including William Forsyth and Robert Fortune. The private eighteenth-century botanic gardens of John Fothergill, William Pitcairn and William Curtis also employed Scottish gardeners, notably Thomas Blaikie who was probably the first professional alpine plant collector. He later became a landscape designer to the French aristocracy and (after the Revolution) to the Empress Josephine.

At the Horticultural Society of London (founded in 1804 and renamed Royal Horticultural Society in 1861), three of the founders, William Townsend Aiton, William Forsyth and James Dickson and many of its plant collectors, including George Don, David Douglas, John Jeffrey, Robert Fortune and George Forrest were Scottish gardeners. Similarly, at least three of the early Head Gardener/Superintendents of the Society's gardens, which at that time were in Chiswick and South Kensington, including Donald Munro and Archibald Barron (in post for thirty and thirty-three years respectively) and miscellaneous other Society officials were Scots gardeners. The Royal Botanical Society at Regents Park (in existence from 1839 to 1932) employed Robert Marnock as designer and first curator of the garden, and at least one of his successors was also a Scot.

Provincial Botanic Gardens

In the nineteenth century, botanic gardens were springing up in many cities throughout Britain and Ireland. In most cases, Scots were the designers and/or the first curators, or the developers. Examples of these are: Dublin, Trinity College (James Townsend MacKay: designer, 1806, and curator for 56 years); Cork (James Drummond: designer, 1808, and first curator); Belfast (Thomas Drummond, brother of James: first curator from 1828); Birmingham (John Claudius Loudon: designer, 1832); Derby Arboretum (partly botanical; John Claudius Loudon: designer, 1840), Sheffield (Robert Marnock: designer, 1834, and first curator); Dublin, Glasnevin (founded in 1795 as a centre of agricultural science, but became

a prestigious botanic garden under successive Scots curator/directors in the period 1834–1922: Ninean Niven, David Moore and Sir Frederick Moore)²³; York (Sir John Murray Naesmyth: designer, 1830s); Manchester (opened 1851, but had to wait until the following year for its first Scots curator, Alexander Campbell); and Hull (James Craig Niven, son of Ninean: re-designer, 1853, and curator). The one notable exception, before the general trend had started, was Liverpool Botanic Garden, which was founded in 1802 and whose designer and first curator was an Englishman, John Shepherd.

Stately Homes in England

Alexander Carlyle, a Scottish minister, visiting the Earl of Portland's Buckinghamshire estate in 1758 observed: 'It was here that we discovered the truth of what I had often heard, that most of the head gardeners of English noblemen were Scotch ... This man [a Scots head gardener] gave us a note to the gardener at Blenheim [the Duke of Marlborough's estate] who, he told us, was our countryman, and would furnish us with notes to the head gardeners all the way down.'²⁴ It is important to record that the Scottish phenomenon was not restricted to botanic gardens. English stately homes in this period also had a disproportionate number of Scottish head gardeners, and there was some movement of personnel between the two types of garden (for example, John Smith [1821-1888]). Further research is needed in this area, but examples of high-ranking people in England who had Scottish head gardeners in the nineteenth century include George III, Queen Charlotte (at Frogmore: Thomas Ingram was in post for 52 years), George IV, William IV, Queen Victoria, King Leopold I of Belgium (Queen Victoria's uncle, at Claremont in Surrey), Duke of Norfolk, Dukes of Bedford, Dukes of Rutland, Dukes of Northumberland, Duke of Portland, Duke of Sutherland, Marquess of Westminster, Earl of Stamford, Earl of Harrington, Earl of Radnor, Earls of Craven, Earl of Liverpool and Earl of Stafford.²⁵

REASONS FOR SCOTTISH DOMINANCE

Various explanations have been put forward for the dominance of Scottish gardeners in England. In addition to the educational factor emphasized by Carlyle, the Scottish head gardener, John Wighton, writing in 1839, attached great significance to the bothy system which was more common in Scotland than in England,²⁶ whereby apprentice gardeners lived communally on big estates away from their families and 'harmful' distractions. This was said to promote self-reliance and professionalism at an early age and therefore gave Scottish gardeners an advantage over English ones.

The Scottish horticulturalist Patrick Neill, in a publication commissioned in 1813 by the Board of Agriculture, listed a range of factors (Neill, 1813).²⁷ It should be noted that Neill, unlike Wighton, had never worked in England, so not all of the following may have been unique to Scotland. Firstly, in Scotland, 'the common people' in general had benefitted from the establishment of parish schools. Junior gardeners, additionally, received evening instruction from master gardeners on such subjects as plant nomenclature and the drawing of plans. Moreover, employers had a habit of conversing with their gardeners and giving them access to their libraries. Secondly, the longstanding connection between gardening and

medicine meant that gardeners in Scotland were often skilled in herbalism and botany. Also many of the large estates had botanical gardens of the highest order, providing gardeners with a knowledge of a wide range of plants. Thirdly, as Carlyle had also observed, head gardeners in Scotland often served as land stewards with a wider remit that gave them experience of such things as forestry maintenance. Fourthly, the difficult climate and poor soils in Scotland meant that their gardeners had to be, of necessity, possessed of great ingenuity in order to carry out such tasks as the cultivation of exotic fruits. And, finally, the Scots were a hardy race, used to harder labour and poorer fare than their English counterparts. They were generally noted for their sobriety, industry and conscientiousness.

An article in *The Gardeners' Chronicle* in 1872, written presumably by an Englishman, attributed the phenomenon to three main factors: 'teeming numbers, climatal difficulties, and the genius and education of the people'.²⁸ As regards the first, there was a saying that 'they strike gardeners in Scotland like gooseberry bushes, and that, moreover, most of them find good warm roomy quarters in the South'. The gist of this argument is that their large numbers increased the likelihood of gifted individuals arising from their ranks. Also, the social status of head gardeners was higher in Scotland, therefore 'the prizes seem more worth the striving for, and consequently more earnest effort may be put forth to grasp them'. As for climatic factors: 'to the majority of Scotch gardeners difficulty is simply a thing to be vanquished ... Cold sunless skies but warm their skill into life; thin poor soils are manured thickly with fruitful expedients'. Under the heading of 'genius and education of the nation', the author listed perseverance, a craving for knowledge, an unquenchable enthusiasm, and a dash of canniness. The author warned, however, that 'Scotland must look to her laurels. England is doubtless making great educational efforts, and her rising race of gardeners will be the first to profit by them ... [The Scots] will have in the future a tougher fight than ever to beat or even keep alongside of the English or Irish contingents'. By the end of the century the Scottish dominance does indeed appear to have come to an end.

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¹Basic biographical information is taken from Ray Desmond, *Dictionary of British and Irish botanists and horticulturalists*, Taylor & Francis (London, 1994); for the history of Kew Gardens, Ray Desmond, *The history of the Royal Botanic Gardens Kew*, 2nd edn, Kew Publishing (London, 2007); and, for gardeners in colonial botanic gardens, Donal McCracken, *Gardens of Empire: botanical institutions of the Victorian British Empire*, Leicester University (London, 1997).

² Cited in Arthur Herman, *The Scottish Enlightenment*, Fourth Estate (London, 2003).

³ Alexander Carlyle, *Autobiography of the Rev. Dr. Alexander Carlyle, Minister of Inveresk, 1722-1805*, William Blackwood (Edinburgh, 1860), p. 362.

⁴ Cited in Suki Urquart, *The Scottish Gardener*, Birlinn (Edinburgh, 2005).

⁵ Forbes W. Robertson, *Early Scottish gardeners and their plants 1650-1750*, Tuckwell Press (East Linton, 2000), ch. 8.

⁶ Daniel Lyson, *The environs of London* (London, 1796), Appendix: "Additions and corrections to volume I", p. 591.

⁷ Kew's current official title is Royal Botanic Gardens, Kew. Rather than use this title anachronistically for areas that at different times have had a variety of owners, functions and names, the text will refer to areas according to their *function* at the time, e.g. Botanic Garden, Pleasure Grounds, etc. Throughout the text, where an abbreviation is appropriate, "Kew" will be used.

⁸ Bute's official position was Gentleman of the Bedchamber to Frederick, Prince of Wales, until the latter's death in 1751, after which he became Groom of the Stole to Frederick and Augusta's son, the future George III. For more information about Bute, see Ron McEwen, "The Princess and the Prime minister", *Richmond History*, 2013.

⁹ Frank Pagnamenta, *The Aitons: Gardeners to their Majesties*, Richmond Local History Society (2009), pp. 40-1: "In October [1827], he [William Townsend Aiton] was designated 'Director General of His Majesties [*sic*] Gardens' ... John Townsend Aiton was appointed 'Deputy Director General' by Warrant dated 2 July 1829 at a salary of £700 p.a."

¹⁰ Frank Pagnamenta, *ibid.*, p.42.

¹¹ Johan Christian Fabricius, *Briefe aus London vermischten Inhalts* (1784; cited in in Eleanor Joan Willson, *James Lee and the Vineyard Nursery*, Hammersmith Local History Group (London, 1961).

¹² Sam George, "Linnaeus in letters: botany in an English dress", *British Journal for 18th Century Studies*, 28 (2005), p. 2.

¹³ Letter to Sir John Sinclair (3 September 1809), in Sir John Sinclair, *The Correspondence of the Right Honourable Sir John Sinclair, bart* (1831). Banks was sufficiently rich not to need paying for his services at Kew.

¹⁴ Letter to Mr George Harrison (September 1814) in Edward Smith, *The Life of Sir Joseph Banks*, John Lane (London, 1911); Letter to Sir John Sinclair (3 September 1809), in Sinclair, *The Correspondence*.

14. See Ron McEwen, "The remarkable botanist physicians", *Electric Scotland*, 2014:

http://www.electricscotland.com/agriculture/botanist_physicians.htm

¹⁶ William Thiselton-Dyer, "List of the staffs of the Royal Gardens Kew and of botanical departments and establishments at home and in India and the colonies", *Kew Bulletin* (1889), pp. 122-6. (Royal Botanic Garden, Kew archives)

¹⁷ Ronald King, *Royal Kew*, Constable (London, 1985).

¹⁸ For more information about these surgeons, see Ron McEwen, "The remarkable botanist physicians", *Electric Scotland*, 2014: http://www.electricscotland.com/agriculture/botanist_physicians.htm.

¹⁹ Longevity evidently ran in the family - his brother and nephew were in charge of the Glasnevin Botanic Garden in Dublin for a combined total of eighty-four years!

²⁰ The quinine that was first produced in these plantations would facilitate the colonization of Africa and make it feasible for colonial officials in India to be accompanied by their wives.

²¹ Donal McCracken, *ibid.*, pp. 47-9

²² Cited in H. Dennis, 'Flore, imaginaire et quotidienne à Paris: bruyeres et roses ecossaises 1800-1848' in *Dix-Neuf*, vol. 4, no. 1 (April 2005): <http://www.ingentaconnect.com/content/maney/dix>. Author's translation.

²³ Glasnevin, like Kew, Edinburgh, Calcutta, Ceylon, Mauritius and Trinidad, had the title 'Royal Botanic Garden'.

²⁴ Alexander Carlyle, *ibid.*, p. 362.

²⁵ The head gardeners in question are: William Forsyth, William Townsend Aiton, Thomas Ingram, John Townsend Aiton, Charles McIntosh, George McEwen, George Sinclair, James Forbes, John Caie, William Ingram, John Smith (1821-1888), William Tillery, John Fleming, Richard Forrest, John Aiton (*fl.* 1840's), William Barron, Henry Eckford, William Miller, James MacPhail and John Wighton.

²⁶ John Wighton, 'On the preference for Scottish Gardeners', *Gardener's Magazine*, 16 (1840), pp. 244-6: "In England, the mansion and gardens of the wealthy are more frequently situated adjoining a populous village; the proprietor, in consequence, often finds his property burdened by too many labourers. When his gardener wants an apprentice, his employer obliges him to take one who belongs to the parish; as he cannot think of employing strangers" [except, evidently, as *head* gardeners].

²⁷ Patrick Neill, *On Scottish Gardens and Orchards*, Board of Agriculture (London, 1813), pp. 4-8.

²⁸ Anon., *The Gardener's Chronicle* (6 April 1872), pp. 461-2.



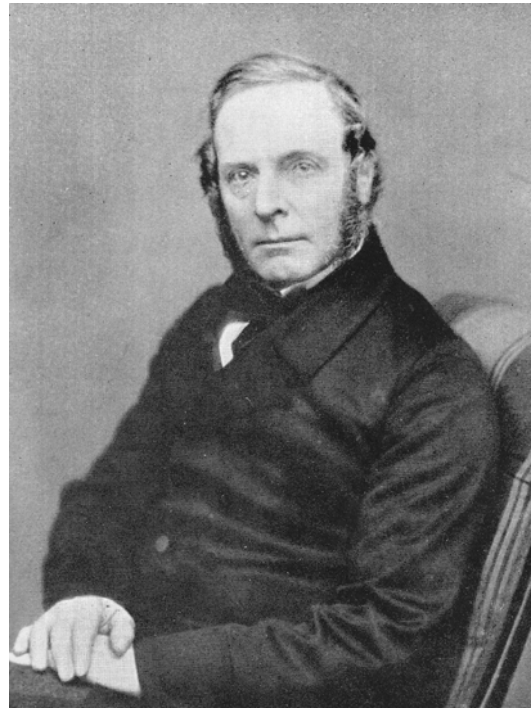
William Aiton (1731-1793)



William Forsyth 1737-1804



William Townsend Aiton (1766-1849)



Robert Fortune (1830-80)