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Botanic Gardens and the Aesthetics of Artifice

Cairns Craig

In 1651 Andrew Balfour, later one of the founders of the Edinburgh Botanic Garden, visited Blois in France, where the physic garden developed by Robert Morison, then physician to the Duc d'Orléans, had become famous for its collection of plants that could be exploited for medicinal purposes. Morison, from Aberdeen, had left Scotland after being wounded fighting on the Royalist side against Cromwell's forces in the battle of the Bridge of Dee in 1639. Having, like many other royalist exiles, taken up residence in France, he obtained a doctorate in medicine at Angers and went on to study botany in Paris with Vespasian Robin, then prominent in the introduction of North American plants into European horticulture. Balfour's meeting with Morison was to lead to a lifelong friendship in which each supported the other's botanical studies. Morison returned to Britain with Charles II in 1660, to become the King's physician and subsequently Professor of Botany at Oxford; Balfour, having developed a reputation as a doctor first in St Andrews and then in Edinburgh, extended his medical practice by establishing, along with his cousin Robert Sibbald, who had also trained in France, a 'physic garden' to emulate those on the Continent, many of which Balfour had visited while on a 'grand tour' with the young Earl of Rochester during the years 1661–4.

Balfour and Sibbald's physic garden was transformed into a botanic garden after the unexpected death in 1671 of one of Balfour's protégés, Patrick Murray (or Morray), Baron of Livingston (or Levenstone), who had been on a tour of the gardens of France. Murray had built a collection of more than a thousand plants at his estate in West Lothian, a collection that Balfour and Sibbald transferred to Edinburgh in order to extend their 'physic garden' into something more substantial, gaining the support of Edinburgh City Council both for improved premises (now the site of Waverley Station) and for the salary of a gardener, James Sutherland, who would subsequently be appointed as Professor of Botany. Sutherland's *Hortus Edinburgensis* of 1684 gave the first listing of all the plants in a garden whose collection had been extended by Balfour's exchanges of seeds not only with Morison, who was by then

in charge of the Botanic Garden in Oxford, but also with botanists on the Continent.¹

It was an increase which was to be vastly extended as new plants began to arrive from the Americas, and subsequently from explorations in Africa, India and Australasia. As in many areas of imperial expansion, Scots were disproportionately represented in botanical exploration, in part because the Scottish universities were training more medical graduates than the country could employ,² with the result that many of them ended up as naval or army surgeons who found time for botanical investigations alongside their professional duties. Some of these, like William Roxburgh in Calcutta, became founders or directors of botanic gardens, providing gateways to the transmission of plants both to and from the United Kingdom. Historians of the international network of imperial botanic gardens tend to present Kew as the centre of the botanical network because of the presiding influence of its unofficial director, Sir Joseph Banks, in the period between 1771 (after his return from Cook's first voyage) and his death in 1820. But it is less often noted that Kew was very much a projection of Scottish botanical interests:³ its creator and promoter was James Stuart, the third Earl of Bute and the first Scottish Prime Minister of the United Kingdom. Bute was a devoted botanist – he published in 1785 his *Botanical Tables Containing the Families of British Plants* – and he set out to develop Kew in the 1760s in competition with the achievements of Philip Miller, who had been gardener and *de facto* director of the Chelsea Physic Garden since 1722. Miller too was of Scottish background, his father having been trained as a gardener in Scotland and then

1 The details of Balfour's life and his partnership with Sibbald are derived from John Walker, 'Memoirs of Sir Andrew Balfour' in *Essays on Natural History and Rural Economy* (London and Edinburgh, 1812), 347–71, which itself derives in part from Sibbald's *Memoria Balfouriana* (Edinburgh, 1699), an account both of Andrew and his older brother James, whose *Historical Works* were published by subscription in 1824 from manuscripts in the Library of the Faculty of Advocates.

2 It is estimated that the Scottish universities produced ten thousand medical graduates between 1750 and 1850, when Oxford and Cambridge were producing only hundreds; see R. H. Girdwood, 'The Influence of Scotland on North American Medicine' in Derek A. Dow (ed.), *The Influence of Scottish Medicine: an historical assessment of its international impact* (Carnforth, 1988), 39.

3 Tim Robinson, *William Roxburgh: The Father of Indian Botany* (Chichester, 2008), notes that 'It is generally accepted that it was Sir Joseph Banks who was the promoter of colonial botanic gardens', as in McCracken, *Gardens of Empire* (London, 1997), 13, but goes on to suggest that 'There are grounds for believing, however, that the idea of a Botanic Garden in the Madras Presidency was suggested by Roxburgh'. *Ibid.*, 125.

setting up a garden business in Deptford, where Philip learned his trade. Like many other Scottish gardeners, Miller was not only expert in gardening, he was expert in communicating what he knew: not only did he turn the Chelsea Physic garden into one of the leading botanic gardens in Europe⁴ but in his *The Gardener's and Florist's Dictionary* of 1724 and *Gardener's Dictionary* of 1731, he produced two of the most admired works on the science of cultivating plants, which led not only to many subsequent and expanded editions but to a European reputation as *hortulanorum princeps*.⁵ According to A. A. Tait, Miller had a preference for apprentices from his own country (or his father's), and was responsible for so many Scots becoming head gardeners in the estates of England.⁶ He was certainly responsible for recommending William Aiton, one his deputies at Chelsea, to oversee the development of the gardens at Kew, a position which Aiton and, subsequently, his son, William Townsend Aiton, between them maintained till 1841. In that year William Jackson Hooker was appointed as Director after having spent 21 years as professor of botany at Glasgow University, where he was involved in the laying out of the new site for the botanic garden, and he was in turn succeeded in 1865 by his son, Joseph Dalton Hooker, who was educated in Glasgow and graduated in medicine from Glasgow University in 1839.⁷ The Scottish genealogy of Kew is matched in the genealogy of many of the botanic gardens in the Empire. William Roxburgh, who oversaw the development of the Calcutta Botanic Garden, had been a student of John Hope, Professor of Botany at Edinburgh University and Keeper of the Edinburgh Botanic Gardens. Roxburgh first arrived in India as a ship's surgeon in 1772, became Assistant Surgeon at the General Hospital at Fort St George in 1776 and had his first scientific paper published in the *Philosophical Transactions of the Royal Society* in 1778. In 1770 he

4 See Henry Field and R. H. Semple, *Memoirs of the Botanic Garden at Chelsea* (London, 1878), for an account of the commitment to producing not just a 'physic garden' but a 'botanic garden' (22–3), and also for an estimate of its European importance, indicated by a visit from Linnaeus, who was a correspondent of Miller's, in 1736. Peter Collinson, a fellow botanist, wrote of him, 'He has raised the reputation of the Chelsea Garden so much that it excels all the gardens of Europe for its amazing variety of plants of all orders and classes and from all climates as I survey with wonder and delight this 19th July 1764', quoted in Gill Saunders, *Victoria and Albert Natural History Illustrators: Ebert's Flowering Plants* (London, 1987), 11.

5 John Claudius Loudon, *An Encyclopaedia of Gardening* (London, 1825), Book 1, 1103; Loudon renders the Latin as 'The Prince of Gardeners', but it might more properly be 'the leader or the first of gardeners'.

6 A. A. Tait, *The Landscape Garden in Scotland 1735–1835* (Edinburgh, 1980), 203.

7 Mea Allan, *The Hookers of Ken, 1785–1911* (London, 1967) might equally have been titled *The Hookers of Glasgow*.

combined his surgeon's role with that of the East India Company Botanist, subsequently becoming Superintendent of the Calcutta garden from 1793 to 1813; his *Flora Indica or Descriptions of Indian Plants* was, however, only posthumously published in 1820 after his death in Scotland in 1815.⁸ Similarly tangential was the career of James Hector, founder of the botanic garden in Wellington, New Zealand: Hector studied medicine at Edinburgh University, taking courses in botany and geology, and was appointed in 1857 as both surgeon and geologist to John Palliser's expedition to Western Canada, as a result of which he was not only elected to the Royal Society of Edinburgh but appointed as Director to the Geological Survey of Otago in New Zealand, a role which was then turned into a national one as Director of the Geological Survey and Colonial Museum in Wellington, from which position he oversaw the establishment of that city's botanic garden.⁹ The botanic garden in Sydney, Australia is also a Scottish creation – initiated by Lachlan Mcquarie during his period as Governor of New South Wales (1810–21), it was turned into a major imperial garden by Charles Moore, originally from Dundee, who was Director from 1848 to 1896, and who came from a family of botanic gardening specialists, since his brother David was Director of the Glasnevin Botanic Garden in Dublin, a role which David's son was to fulfil in the early twentieth century. Scotland's involvement with Kew and with Colonial botanic gardens was to continue into the twentieth century when David Prain, who had worked his way through university to achieve a medical degree, and had then risen to be Director of the Calcutta Royal Botanic Garden (1898–1905), was appointed Director of Kew (1905–22), while as late as 1916, John Davidson, who had been a demonstrator in the University of Aberdeen, was establishing the botanic garden of the University of British Columbia.

This Scottish engagement with botanic gardens was taking place in the period when landscape gardening was – under the influence of William Kent, 'Capability' Brown and Humphry Repton – seeking to create the impression of an 'informal' or 'natural' landscape, of the kind that came to be known as the *jardin anglais*, in contrast to the geometrical formality of Italian and French

8 The details of Roxburgh's life and scientific endeavours are contained in Tim Robinson's *William Roxburgh: The Founding Father of Indian Botany*, especially Chapters 2 and 3, 23–62.

9 See R. K. Dell, 'Hector, James', first published in the *Dictionary of New Zealand Biography*, Vol. 1 (Wellington, NZ, 1990); subsequently available at *Te Ara – the Encyclopedia of New Zealand*, <https://teara.govt.nz/en/biographies/1h15/hector-james>, accessed 11 September 2017.

gardens. It was clear to a theorist of 'taste', such as Archibald Alison, why formality should be the original impulse behind the construction of a garden:

A Garden is a spot surrounding or contiguous to a house, and cultivated for the convenience or pleasure of the family. When men began first to ornament such a spot, it was natural that they should do with it as they did with the house to which it was subordinate, viz. by giving it every possible appearance of Uniformity, to show that they had bestowed labour and expense upon the improvement of it. In the countries that were most proper for Gardening, in those distinguished by a fine climate and a beautiful scenery, this labour and expense could in fact in no other way be expressed than by the production of such Uniformity.¹⁰

Indeed, any attempt to make of gardening an 'imitative' art would, in the conditions of rich natural beauty, be absurd:

To imitate the Beauty of Nature in the small scale of a Garden, would have been ridiculous in a country where this Beauty was to be found upon the great scale of Nature: and for what purpose should they bestow labour or expense, for which every Man expects credit, in erecting a scene, which, as it could be little superior to the general scenery around them, could of consequence but little communicate to the Spectator the belief of this labour or this expense having been bestowed? The Beauty of Landscape, Nature has sufficiently provided. The Beauty, therefore, that was left for Man to create, was the Beauty of Convenience or Magnificence; both of them dependent upon the employment of Art and Expense . . .¹¹

In Britain, however, where there was not the same profusion of natural beauty, garden design was an 'imitative' art insofar as what it imitated was Italian nature, producing a 'profusion with which Temples, Ruins, Statues, and all the other adventitious articles of Italian scenery was lavished' that 'became soon ridiculous'.¹² The *jardin anglais* was created, Alison thinks, by the subtraction of the distinctive Italian elements of the imitated landscape:

10 Archibald Alison, *Essays on the Nature and Principles of Taste* (Edinburgh, 1811; 2 vols), II, 94–5.

11 Ibid., 95–6.

12 Ibid., 102.

The power of simple Nature was felt and acknowledged; and the removal of the articles of acquired expression, led men only more strongly to attend to the natural Expression of Scenery, and to study the means by which it might be maintained or improved.¹³

Given the extent to which ‘taste’ was dominated by classical art and the associations of classical literature, such a change could not have come about without the creation of a new literary context through which the natural world was to be appreciated, and that change was provided by Thomson’s *The Seasons* (1726–30):

The publication, also, at this time, of the Seasons of Thomson, in the opinion of a very competent judge [Dr Warton], contributed in no small degree, both to influence and to direct the Taste of men in this Art. The peculiar merit of the work itself, the singular felicity of its descriptions, and, above all, the fine Enthusiasm which it displays, and which it is so fitted to excite, with regard to the works of Nature, were most singularly adapted to promote the growth of an infant Art, which had for its object the production of Natural Beauty; and by diffusing everywhere both the admiration of Nature, and the knowledge of its Expression, prepared, in a peculiar degree, the minds of men in general, both to feel the effects, and to judge of the fidelity of those scenes in which it was imitated. By these means, and by the singular genius of some late masters, the Art of Gardening has gradually ascended from the pursuit of particular, to the pursuit of general Beauty; to realize whatever the fancy of the Painter has imagined, and to create a scenery, more pure, more harmonious, and more expressive, than any that is to be found in Nature itself.¹⁴

The English landscape tradition is nature purified of the artworks that had littered the imitations of Italian or, later, Chinese gardens, and raised its various elements to a level of harmony that nature by itself could never produce. The art of subtraction was also a matter of subtracting those discordances which would or could be discovered in even the most beautiful or sublime of natural prospects.

13 Ibid.

14 Ibid., 103–4.

While landscape gardeners were seeking styles which would seem ever more natural, even when, as in the ‘picturesque’, they were effectively imitations of a style of landscape painting, in the botanic garden art was being developed in a very different direction. In 1736 Georg Dionysius Ehret, a German botanist and illustrator of botanical specimens who had worked with Carl von Linné (Linnaeus), arrived in London and lodged with Philip Miller, taking specimens from the rich holdings of the Chelsea Physic Garden as the subject of his illustrations. There he met and married in 1738 Miller’s sister-in-law, Susanna Kennet, and began to specialise in the illustration of the newly discovered exotic plants that were increasingly arriving in the Chelsea Physic Garden: the art of botanic illustration – previous botanists like Robert Morison had provided illustrations for their own works – was combined with the aesthetics of novelty in order to disseminate knowledge of plants which many gardeners might never be able to raise themselves.

Part of the impact of Ehret’s illustrations were their close attention to the elements of the plant which corresponded with Linnaeus’s ‘sexual system’ of plant categorisation – the plants in Ehret’s illustrations looked impressively realistic but at the same time were abstracted to focus on the elements of interest to botanical classification.



Illustrations by Georg Ehret

They also incorporated elements which outlined the plant’s development and decay, so that although the main focus of the illustration was the plant at the time of its greatest beauty, the illustration would often include an illustrative

timeline representing the seed, through its initial growth and back to its generation of new seeds. The illustration, in other words, was not purely mimetic of a particular moment in time, nor did it seek to display the plant in its natural environment: as with a rare specimen in a botanic garden, the plant is presented in isolation and not as an element in an original ecosystem.

The influence of this technique can be seen in the works of those ‘plant hunters’ who were also plant illustrators, such as Sydney Parkinson (1745–71), originally from Edinburgh, who accompanied Joseph Banks on Cook’s first voyage of circumnavigation, and Francis Masson (1741–1805), from Aberdeen, who went on the second voyage as far as South Africa, where his explorations resulted in his sending back more than 400 new species.¹⁵ Given the difficulties and hazards of transporting seeds, let alone plants, across vast stretches of dangerous oceans made more dangerous by conflict between European nations, illustrations were crucial as a record of what the plant hunters had discovered, even if the specimens never made their way back to the United Kingdom. The works of Parkinson and Masson both underline the botanical style as developed by Ehret: the plant is shown in isolation against a neutral backdrop, but with detailed emphasis on the structure of the stem and leaves and with enough variety in terms of roots, flowers and seeds to indicate its life cycle, and therefore to make identification possible at whatever stage a live – or dying or dead – version of the plant is encountered.



Illustrations
by Sydney
Parkinson, who
died at sea in
1771 on the way
to South Africa
during Cook’s
first voyage of
circumnavigation.



In India, William Roxburgh was to produce an even more interestingly abstract representation of plants by using local artists, and though he tried

¹⁵ See *Parks and Gardens* at <https://parksandgardensuk.wordpress.com/2016/06/25/how-francis-masson-found-the-worlds-oldest-pot-plant-and-a-few-other-things/>, accessed 11 September 2017.

to train them in Western conceptions of perspective and the use of light and shade, many of drawings retain the tradition which William Tennant, a Company chaplain, described as deriving from ‘the laborious exactness with which they imitate every feather of a bird, or the smallest fibre on the leaf of a plant’.¹⁶ The Kew website on Roxburgh describes the drawings as being ‘pattern-like in appearance, the plants, flowers and seeds arranged decoratively across the paper, almost like pressed specimens’,¹⁷ producing an outcome which turns ‘nature’ into a series of almost geometrical patterns. By such developments botanical art was moving in the opposite direction from landscape art: rather than the integration of plants in a harmonious environment – Alison’s emphasis on a ‘scenery, more pure, more harmonious, and more expressive, than any that is to be found in Nature itself’¹⁸ – botanic art was concerned with isolating individual plants, and identifying the structural elements which would be common to all plants of that type and which would, therefore, make identification possible. In the visual re-enactment of a plant’s lifetime development, the representations of the botanic artist turned time into space, with the consequence that mimesis turned into montage.



The hybrid of Western and Indian styles of painting developed under William Roxburgh’s direction.



The illustrations of the botanical artist had a scientific purpose in cataloguing the wealth of nature but they also spurred the desire on the part of the public to own such plants, and thereby also spurred the gardening trade which could profit from that desire. A prime example of these interactions

16 Robinson, *William Roxburgh*, 95.

17 ‘Roxburgh’s *Flora Indica*’, <http://apps.kew.org/floraindica/htm/artists.htm>, accessed 11 September 2017.

18 Alison, *Essays on the Nature and Principles of Taste*, 103–4.

is the Vineyard Nursery of Lee and Kennedy, established by two Scottish gardeners – James Lee (1715–95) from Selkirk and Lewis Kennedy from Dumfries (1721–82) – around 1745, on ground which had previously been used for growing grapes. Lee and Kennedy’s nursery was famous for its collection of exotic plants – *Hortus Kewensis* names one hundred and thirty-five plants introduced into England, or first known as cultivated by, the Vineyard Nursery during the lifetime of James Lee¹⁹ – most of them sent by Lee’s correspondents in North America and Australia, but some of them coming from dedicated ‘plant hunters’ such as Francis Masson. Lee became famous as a result of publishing, in 1760, *An Introduction to Botany* (effectively, a translation of the work of Linnaeus) but became wealthy as a result of his ability to naturalise exotic plants and to sell them at a significant profit: when the first fuchsia came into his hands, for instance, he was able to sell the plants grown from his cuttings at a guinea a time. Lee’s daughter Ann was an illustrator of the plants by which Lee and Kennedy made their fortune, encouraging the taste for the exotic which would create a market for the nursery’s products.

Such enrichments of the British garden would not have been possible, however, without the development of the ‘hot house’ to provide an artificial environment suitable to plants from very different climates. James Justice’s *The Scots Gardiners Director* of 1759 begins with instructions on how to build a walled garden, but the first wall to be built should be the northernmost wall, facing south, which will have furnaces and flues to heat the brickwork and create a warm environment to allow the growing of grapes and other fruits not native to Scotland. The ‘hotwall’ was to be combined with a moveable set of glass coverings which could be shifted to particular locations along the hotwall to ‘force’ the unseasonal development of particular plants.

The eighteenth-century use of glass as an accompaniment to the hotwall was to develop in the nineteenth century into the ‘glass-house’ or ‘winter garden’, which could create the specialised climate necessary for the sustained growing of exotic plants. As Walter Nicol’s *The Scotch Forcing Gardener* of 1796 put it: ‘In the cultivation of exotic plants and fruits in hot houses, regard must be had to the climate of their nativity; and the best endeavours be used to imitate it in the hot-house; introducing the natural changes of the seasons with equal care’.²⁰ The art of imitation is no longer the art of representing the exotic but the art of artificially maintaining a climate sufficiently similar to that from which ‘exotic’ plant species derived that they are able to flourish in despite

19 E. J. Wilson, *James Lee and the Vineyard Nursery Hammersmith* (London, 1961), 25.

20 Walter Nicol, *The Scotch Forcing and Kitchen Gardener* (Edinburgh, 1798), 8.

of the angle at which the sun's rays strikes the earth in a northerly latitude. The construction and maintenance of the hothouse became perhaps *the* major issue for professional gardeners in the late eighteenth and early nineteenth centuries: their employers expected them to provide the nectarines, grapes and pineapples which were a sign of achieved wealth, and some, at least, were prepared to pay to have special hothouses built to suit the requirements of each fruit: Nicol, for instance, has specific instructions for the construction of cherry houses, grape houses and houses for pineapples.²¹ In the first two decades of the nineteenth century, however, the 'domestication' of the hothouse led to its removed from being a specialised building to being integrated into the house as conservatory: as John Claudius Loudon, one of the principal innovators in greenhouse design, suggested in his *Green-House Companion* of 1824 (which went through many editions in the following two decades);

According to our ideas of the enjoyments of the green-house, it is essential that it be situated close to the house; not merely near, but immediately adjoining; and attached to it either by being placed against it, forming a part of the edifice; or by means of a corridore, veranda, or some other description of covered passage. The most desirable situation is unquestionably that in which the green-house . . . shall communicate with, and form as it were an additional apartment to the library, or breakfast parlour. If it communicates by spacious glass doors, and the parlour is judiciously furnished with mirrors, and bulbous flowers in water-glasses, the effect will be greatly heightened, and growth, verdure, gay colours, and fragrance, blended with books, sofas, and all the accompaniments of social and polished life.²²

The garden of exotics becomes, quite literally, an extension of the domestic interior, one which can be continuously rearranged as the plants come into season: as Loudon notes, the advantage of a green-house plant in a pot is that the plant 'acquires a sort of locomotion' and because it can be moved in and out of the house it 'becomes, as it were, thoroughly domesticated'.²³ The mobile exotic, both in the domestic interior and in the garden, offers an entirely different kind of aesthetic experience from the 'natural landscape':

21 Ibid., Chapters 3, 4, 8.

22 John Claudius Loudon, *The Green-House Companion; comprising a General Course of Green-House and Conservatory Practice Throughout the Year* (London, 1832; 3rd edn), 5–6.

23 Ibid., 1.

instead of permanence it offers continuous refreshment; instead of an imitation of nature it offers the experience of many different kinds of nature; instead of the comfort of the familiar it thrives on the experience of novelty. The domestic garden, with its conservatory and greenhouse, becomes, in effect, a miniature botanic garden, in which the plants do not form an imitation of a natural environment but are displayed to underline their individual differences. Striking juxtaposition rather than a merging harmony becomes the governing principle by which the garden is arranged, as though each plant was the living embodiment of a botanical illustration.

Loudon's career and influence is emblematic of the changing aesthetics of landscape in the first half of the nineteenth century, and also of the influence of the Scottish gardening innovations from the eighteenth century. One of Loudon's early publications was titled *The utility of agricultural knowledge to the sons of the landed proprietors of England . . . illustrated by what has taken place in Scotland* (1809). Although his *Treatise on Forming, Improving and Managing Country Residences* in 1806 is addressed to the kinds of large landowners whose properties had been redesigned in the 'natural' or 'informal' fashion by 'Capability' Brown and Humphry Repton. Loudon made his first fortune as a 'landscape architect', a term he coined, by challenging their versions of the relationship between nature and landscape. The artificially 'natural' was, for Loudon, an evasion of the artistry by which gardening transformed nature into art: the garden should not imitate nature but assert its difference from nature. By the end of his career his prime audience was, in the title of his book of 1842, *The Suburban Horticulturalist*, someone who probably lives in the kind of semi-detached villa which Loudon had himself first designed (the design producing the house at No. 3–5 Porchester Terrace in London for his own family's use²⁴) and illustrated in his *The Suburban Gardener and Villa Companion* of 1838.

Loudon's technical inventiveness is nowhere better exemplified than in his contribution to the development of the hot-house. In his *A Short Treatise on Several Improvements Recently Made in Hot-Houses* of 1805, Loudon was not only extolling the benefits of an iron and glass construction, but was promoting a new aesthetic of building design: according to Kohlmaier and van Sartory,

24 See 'The grand London "semi" that spawned a housing revolution', <https://www.theguardian.com/cities/2015/apr/01/the-grand-london-semi-that-spawned-a-housing-revolution-a-history-of-cities-in-50-buildings-day-8>, accessed 15 September 2017.

In his writings . . . there is formulated for the first time in the history of building the principle that glass and iron structures possessed just as much of an aesthetic claim to beauty as masonry architecture. He even went a step further: in a call to battle against stylistic architecture, he proclaimed that beauty and function are of necessity bound together and mutually dependent.²⁵

In his 'Sketches of Curvilinear Hothouses' of 1818, Loudon emphasised that, in the design of a landscape, garden hothouses had to be concealed because they looked like utilitarian 'lean-to' sheds; he proposed, instead an alternative mode of construction which would make the hothouse itself an aesthetic addition to the garden, with fine, curved metal columns allowing the maximum of light to reach the interior. To achieve this, Loudon had worked with the London firm of W. and D. Bailey to create a new 'rolled-iron glazing bar which could be curved in any direction with no loss of strength'.²⁶ John Hix, in *The Glass House*, describes Loudon's invention as having 'opened a new era in curvilinear construction, replacing curved bars made of several short pieces',²⁷ an invention which, after their initial application in 1817,²⁸ allowed the building of ever larger and more elegantly curved structures: Loudon, for instance, proposed a 'conical glass dome over 200 feet in diameter and 100 feet high'²⁹ in his design for the Birmingham Botanic Garden in 1831.³⁰ Glass houses on such a scale transformed the public spaces offered by the botanic garden into a year round attraction: 'winter gardens' became the places of resort for the leisured, combining recreation and education, and extending the aesthetic appreciation of plant types and providing inspiration for the introduction of new plants into the domestic conservatory. Loudon's notion of the plant that 'acquires a sort of locomotion' was fulfilled in the Winter Garden, since the plants had travelled from quite different parts of the world, had been set out in displays that would change as plants came into and went out of season, and would steadily migrate to the domestic garden or conservatory.

25 Georg Kohlmaier and Barna von Sartory, *House of Glass: A Nineteenth-Century Building Type*, trans. John C. Harvey (1981; Cambridge, MA., 1986), 26.

26 *Ibid.*, 141.

27 John Hix, *The Glass House* (London, 1974), 21–2.

28 Kohlmaier and von Sartory, *House of Glass*, 87.

29 *Ibid.*, 197.

30 The proposal was rejected as being too ambitious and too costly but the eventual building incorporated Loudon's design for curvilinear construction. *Ibid.*

The artifice of the hothouse and the conservatory combined to produce a new botanical aesthetics based not on the imitation of 'nature' but on the exploitation of many natures, not on the reproduction of the familiar but on the radical conjunctions and disjunctions of the unfamiliar. This Loudon described as 'the gardenesque', a style which adopted from the botanic garden the need to present exotic specimens in relative isolation so that their unique features could be appreciated:

There are various other beauties besides those of the picturesque, which ought to engage the attention of the landscape gardener; and one of the principal of these is, what may be called the botany of trees and shrubs . . . Mere picturesque improvement is not enough in these enlightened times: it is necessary to understand that there is such a character of art, as the gardenesque, as well as the picturesque . . .³¹

For the picturesque wide spaces were required, but the gardenesque – what Loudon also called 'scientific ornamental gardening' – could flourish in an urban or suburban space. What the gardenesque underlined and what the picturesque tried by its imitation of the natural world to conceal was that 'as every garden is a work of art, Art should be everywhere avowed in it'.³²

The return to art and artifice in the gardenesque of the 1830s and 1840s reveals how false is the narrative against which John Dixon Hunt rails in his *Greater Perfections: The Practice of Garden Theory*, and which he traces to Horace Walpole's *History of the Modern Taste in Gardening*:

Now 'informal' is pitted against 'formal', and other nations, against the English. We are entertained to a wonderfully agile, often amusing, and horribly persuasive argument for the supremacy of one mode of gardening, one that is above all 'natural', modern, English and worthy to be acclaimed among the pre-eminent fine arts. Walpole's achievement has to be saluted all the more when it is realized that single-handedly he determined (or distorted) the writing of landscape architecture history to this day.³³

³¹ *Gardener's Magazine* 8 (1832), 701.

³² 'Remarks on Laying out Public Gardens and Promenades', *Gardener's Magazine* 11 (1835), 648–52.

³³ John Dixon Hunt, *Greater Perfections: The Practice of Garden Theory* (London, 2000), 208.

In the Scottish context, nature was too wild to encourage the belief that a garden ought to imitate nature or that the landscape could be made simply 'picturesque'. Loudon, for instance, states in a section on Scottish gardens in his *Encyclopaedia* that, 'The country residences of Scotland in general excel these of England in the prominence of their natural features, being generally backed by hills or mountains, encompassed by a river or a stream; or situated on a lake, or the seashore',³⁴ and he was to wage a long campaign against the designs of 'Capability' Brown.³⁵ According to A. A. Tait in his history of the landscape garden in Scotland, however much Scottish landowners and gardeners invested in the planting of trees in order to enhance the natural environment, they continued the earlier tradition of a formal garden, often with a parterre, close to the house, as in the case of Drummond Castle, whose gardens were redesigned in the 1820s and 1830s 'around a sixteenth-century obelisk sundial'³⁶ that had, itself, been the centrepiece of a much earlier formal garden. Loudon's 'gardenesque' may have been aimed primarily at suburban gardeners around London, but it had deep roots in Scotland's botanic and gardening traditions.



Drummond Castle Garden from an old postcard.

34 *Encyclopaedia of Gardening*, 1249.

35 See Tait, *The Landscape Garden in Scotland 1735–1835*, 175.

36 *Ibid.*, 234.