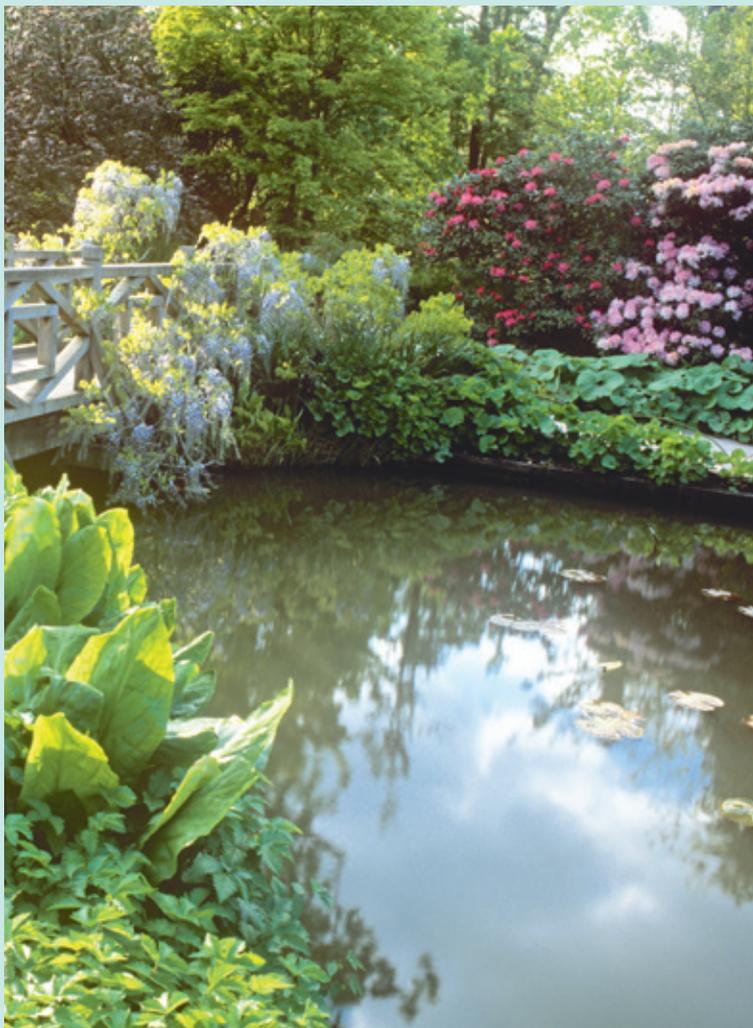


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VOLUME ELEVEN JANUARY 2014
Experimental gardening: Wisley in
the nineteenth century



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Society

Cover illustration:

Photograph by Clay Perry of the water garden at Wisley, the area most recognisable today from photographs in George Fergusson Wilson's time (compare p. 53).

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Occasional Papers from

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B. ELLIOTT. Experimental gardening: Wisley in the nineteenth century	3
Wilson and his gardens: an introduction	4
Pest control 1: before Wilson	13
Pest control 2: Gishurst Compound	18
Plant breeding	24
Plant introductions	29
Some plant groups of special importance for Wilson	30
Microclimate and environment	40
Water gardening	46
The wild garden	50

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Volume Eleven

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Experimental gardening: Wisley in the nineteenth century

BRENT ELLIOTT

c/o The Lindley Library, the Royal Horticultural Society, London

In 1902, George Fergusson Wilson, a former Treasurer of the Royal Horticultural Society, died, and the Society's Council immediately took steps to find out whether his garden at Wisley was going to come on the market (minutes of Council, 8 April 1902). The Society had spent most of the past decade trying to find a new location for a garden, outside the polluted suburbs of London, fruitlessly investigating one site after another, and the matter was becoming urgent: the Royal Society had already commissioned a study of the effects of air pollution, using the Society's garden in Chiswick as its test case. And the Society's centenary was approaching, with Council divided over the question of how the funds built up for the occasion should be used, one faction arguing for the primacy of a new garden, another for the importance of an exhibition hall so it could hold its flower shows on its own premises. The dispute had already prompted two resignations from Council, by members who thought that Baron Henry Schröder was forcing the Society's hand by buying a site for the exhibition hall on Vincent Square in readiness for the final decision.

Nothing more was heard of Wilson's garden for over a year; the RHS seems to have received no response to its query; probate was granted on 4 June, and on 7 June 1902 (p. 375) the *Gardeners' Chronicle* reported that the garden would shortly be sold. Then on 4 August 1903, Sir Thomas Hanbury, the wealthy silk merchant whose garden at La Mortola, in Italy, had become celebrated for its horticultural excellence, met the Society's council in a secret session, and offered to purchase Wilson's garden for the RHS as a new experimental garden. His offer was accepted, and a trust (founding members: Ellen Willmott, John T. Bennett-Poë, and Cecil Hanbury) set up to oversee and protect the garden; by October the Society could announce to the world that it had acquired the garden at Wisley, and over the course of the winter and the following spring the garden at Chiswick was wound down and closed.

But – apart from its distance from the smokes of London – what was the attraction of the garden at Wisley for the RHS? It was already a well-

known garden; the press reaction to the announcement was that most serious gardeners would already know of it. What did it stand for, and what was its importance as a garden?

This paper is not an attempt at a history of Wisley; the documentation is too poor, Wilson's papers not having survived, to produce a satisfactory chronology of its development. Rather it is an attempt to put Wisley into its nineteenth-century context, to show what its relations were to other gardens of the period, what made it distinctive, and what made it such an immediately attractive prize to the Society.

Wilson and his gardens: an introduction

George Fergusson Wilson (1822–1902) was an industrial chemist; I will say more about this side of his career in a later section. He was elected to Fellowships in the Royal Society, the Chemical Society, and the Royal Society of Arts, on which he served for a decade and a half as Council member and Treasurer. In 1863, aged only 41, he retired, and is shown in subsequent census reports as a “Retired Manufacturer”; but he continued to serve as a technical adviser and director for his family firm. The year before his “retirement” he had married Ellen Barchard, who became a botanical artist (one of her illustrations, of *Lilium krameri*, was published in *The Garden* for 12 August 1876). They had three children, Scott Barchard Wilson (1864–1923), who became an ornithologist and worked with his father on the Wisley garden; Herman George Wilson (1866–1942), who emigrated to California and died there; and Alice Charlotte Wilson (1869–1945), who is recorded as having visited Wisley regularly to paint plants. (In 1883 Wilson said, “Dr Dominy once said to me that a gardener should have two lives: I hope Oakwood will have the second life in my son” (Wilson, 1883a: 178); the son in question was presumably Scott, as he was mentioned in the article. However, for whatever reason, neither son took Wisley over after G. F. Wilson's death.)

Wilson's involvement with the RHS began in 1860, when he was appointed to the Fruit and Vegetable Committee. He also served on the Floral Committee, and was a founder member of the Scientific Committee (for details of his committee memberships, see Table 1). From 1866 to 1868 he was the Society's Treasurer, and on stepping down from that role he became a member of Council. Then in 1873 came the stormiest annual

Table 1. Wilson's membership of RHS committees.

Committee or role	Dates of service	Chairmanship & vice-chairmanship
Treasurer	1866–68	
Council	1869–73, 1881–88	
Floral	1877–88	Chairman 1884–88, Vice-chairman 1877–79, 1882
Fruit & Vegetable	1860–61, 1866–73	Chairman 1866–72, Vice-chairman 1873
Science	1868–77, 1880–98	Vice-chairman 1881–88

general meeting in the Society's history. The Society had two gardens, its experimental garden at Chiswick and its display garden at Kensington; a rebellious faction, led by Dean Hole (who in 1893 was to write in the Wisley visitors' book that it "realized his dream of a garden" – the use of the third person makes the pronoun ambiguous), challenged the dominance of Kensington in the Society's finances, and ran opposition candidates. The AGM was adjourned more than once, and Wilson rushed into frantic activity on behalf of the existing Council, writing letters in the press, chivvying members into attending the meetings, and canvassing in the *Gardeners' Chronicle* for proxy votes. When the meeting was reconvened, an unnamed Fellow asked Wilson from the floor if he intended to use the proxy votes he had been sent; Wilson replied, "I shall most assuredly use all the proxies I have been entrusted with", and the response was "A most dishonourable transaction" (see Elliott, 2004: 26–32 for the Kensington controversies generally). The eventual result of the AGM was the mass resignation of Council, including Wilson, who shed all his RHS functions except the Scientific Committee and published his collected press correspondence on the matter as a pamphlet: *The Royal Horticultural Society: as it is, and as it might be* (Wilson, 1874, and see the review in *Gardeners' Chronicle*, 7 February 1874, p. 183). As the controversies continued, by 1877 he was morosely saying that perhaps it was time to wind up the RHS and start again.

In that year, nonetheless, he resumed his committee activities, and continued as a committee member until 1898, when his official roles in



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Fig. 1. Carte-de-visite photograph of George Fergusson Wilson by Dickinson Brothers of Brighton and London, 1863; given by Wilson in 1866 to Richard Dean, the Secretary of the 1866 International Botanical Congress.

the RHS finally came to an end. In 1897, he was one of the original sixty recipients of the Victoria Medal of Honour. Whether he was happy with the alterations which Sir Trevor Lawrence was making in the administration of the Society during those later years is questionable. In a letter published in the press in 1891, he remarked: "There seem to be curious changes in the horticultural world, while members of the trade go on the Council of the Royal Horticultural Society which used to consist only of amateurs, amateurs have begun to sell plants. I have to-day received some good plants sold by a clergyman in the country" (Wilson, 1891e).

Even before he acquired the site at Wisley, Wilson was already famous for his garden at Heatherbank, near Weybridge. (In what follows, when I discuss Wilson's horticultural practices and innovations, his activities at Heatherbank are included.) Heatherbank was quite well known as a garden, and discussed frequently in the press, though hardly any illustrations of it were published, and those showing details of planting only, never a view of the garden as a whole.¹ Suffice it to say that Heatherbank was a domestic garden and not, except in a small degree, an experimental garden. "The Heatherbank garden is not used as an experimental ground, but is arranged in the ordinary neat manner with smoothly kept lawn, trim beds, fine specimens of rare coniferous and other hardy shrubs, Lilies everywhere, conservatory and other plant houses, some of which are devoted to Orchids" (Anon., 1884).

Wilson's property arrangements are, on the basis of such records as I have seen, slightly inscrutable. In addition to the garden at Heatherbank, he had a house called Gishurst Cottage, the fourth property to the north along the same road. The Weybridge rate book for 1867 shows Heatherbank as in the joint ownership of Wilson and Arthur Cobbett; by 1870 Cobbett is shown as sole owner, though Wilson was still down as the primary name and the payer of the rates; and in the 1871 census he and his family are shown as living at Heatherbank, while the only people at Gishurst Cottage on census day were Isaac Tye, the gardener, and his wife. Council

¹ The three Heatherbank illustrations were all drawn by Noel Humphreys, and published in *The Garden*: root-work embellished with spring flowers, 18 April 1874: 323; a group of snowdrops on root-work, 25 April 1874: 345; and a cyclamen nook at Heatherbank, 9 May 1874: 389.



Fig. 2. The first published illustration of Wisley: wood-engraving from *Gardeners' Chronicle*, 10 February 1883, p. 183.

minutes for 16 February 1870 record that Wilson had offered a garden in Weybridge to the Society; the garden is not named, but was probably Heatherbank. (Cobbett's main house was Firfield, the next property to the north of Heatherbank; his occupation is shown in the 1871 census as "Italian Warehouseman". Along with Wilson, he was a prominent member of the Weybridge and District Horticultural Society (on 8 July 1894 the *Surrey Advertiser* reported that Wilson, along with Cobbett and other board members, had conducted a reform of the Society's awards policy – details not provided).

So it would seem that Wilson was already in the habit of having multiple gardens even before he acquired his estate at Wisley, where he never lived.

Wilson's articles and notes in the press were signed from Heatherbank, even when the subject was Wisley.

In 1878 Wilson bought a sixty-acre property at Wisley known as Glebe Farm. Wilson let much of the site to a local farmer, and retained for his garden an area of some thirteen acres (5.5 hectares), which he named Oakwood. In the first census after his purchase, the occupier of Oakwood House was shown as William Hather, gamekeeper, and that of Glebe Cottage as William Backhurst, general labourer. A decade later the occupier of Oakwood was Alfred Tatnall (1861–1943), domestic gardener, with his wife Alice. Tatnall was to remain the gardener at the Wisley site until the RHS acquired it; it is presumably his handwriting that is found in the Oakwood weather volumes from 1890 onward.

In the gardening press Wilson's garden was called Oakwood at first, but before the end of the 1880s was often described as Wisley, and the two names went on being used without any apparent rationale for choice during the remainder of his lifetime. (Norman Cookson, the great orchid breeder, had a house called Oakwood in Northumberland; so perhaps the gradual shift to calling Wilson's garden Wisley arose from a desire to avoid confusion.) In what follows, I will call Wilson's garden Wisley except where quoting from others.

It did not take long for Wisley to make its appearance in the gardening press. In April 1880 the visiting American nurseryman C.M. Hovey reported that:

It is but recently that Mr. Wilson has purchased a beautiful spot of ground, comprising some sixty acres or more, situated only a mile or two from his present residence. It included hill and dale, and fine trees for the higher portions of the grounds. He had just completed a handsome summer cottage, built on a new and, it seemed to me, remarkably economical plan, and though ornamental, yet thoroughly substantial. Little or no planting has yet been done. It is here, however, that he has formed what I term the wild garden, occupying a low boggy situation partly covered with a growth of shrubs and scattered trees; already it was pretty well filled with a variety of rare and choice plants, and clumps of *Lilium auratum* and *Krameri*, and a specimen of

anything likely to prove hardy enough for the climate. ... The situation is admirable, the soil a black, boggy, half-leaf mould, and the beds, generally circular, cut out of the Grass here and there where trees did not interfere, and is as natural as possible (Hovey, 1880).

The first article about it was published in 1881. In its issue for 10 February 1883, the *Gardeners' Chronicle* published the first illustration of it: a wood-engraving made after a photograph taken by Rouch.¹ Wilson explained: "The photograph was a chance one. Mr. Stevens... and Mr. Rouch, when photographing on the Wey, on reaching our bank came up to see the garden, where my son [Scott B. Wilson] and I were at work, and though it was a windy day, Mr. Rouch took two successful photographs". Wilson's text included an account of his purchase of the site:

My getting the garden was almost as accidental as the photograph. A friend happening to mention a small farm to be sold at Wisley, I went over it, and saw in the old, undisturbed Oak wood such vegetation, showing the richness of the soil, that, on getting home, I said, "If we get the place, I can make such a garden as has not been made before." This was in 1878. We began with the wood, and with some plants made happy hits... (Wilson, 1883a, p. 178).

A few months later, Canon Ellacombe reported the rate of progress at Wisley, as observed on his third visit to the garden:

I saw it first three years ago, and thought it a very pleasant but not a very hopeful experiment. When I saw it last year I was astonished at the progress made, but was still doubtful of its general utility. I had the pleasure of seeing it again last week, and must confess that it is a complete success. It is quite marvellous to see the vigour with which many plants are growing which have been a puzzle to gardeners for many years (Ellacombe, 1883).

¹ Which Rouch was this? The firm of W. W. Rouch & Co. had been founded in 1863 by William White Rouch (c.1800–1871), a camera manufacturer. His son Samuel White Rouch (1834–1898) was also a camera inventor, and Samuel's nephew William Albert Rouch (1862–1947) was a photographer but also the director of the company from 1898. The last-named seems most likely.

And over the ensuing years Wilson kept the horticultural public informed about his activities, and his successes with plant culture. By 1886, the weekly newspaper *Gardening World* could remark that Wilson's gardens were "now fast becoming notorious", presumably meaning by that "celebrated" (Anon., 1886: 806). As with Heatherbank, there were far more descriptions published than illustrations; it was only in Wilson's last years that recognisable views of Wisley began to appear, and never a plan.

Who was actually responsible for the works at Wisley? In the early days, as evidenced by the 1883 passage quoted above, Wilson and his son appear to have undertaken a great deal of hands-on work themselves. Wilson did not live at Wisley, but we have some records of how much time he spent there. From 1884 a visitors' book was maintained at Wisley, and G.F. Wilson of Weybridge sometimes appears as a visitor, presumably on social occasions (e.g. 25 March 1897, the date of his 75th birthday); but his name appears far more frequently in the Oakwood weather volumes. The signatures in the visitors' book record the arrival of guests to look at the gardens, presumably, rather than to work in them; but we do know that Gertrude Jekyll contributed some physical labour in the early days:

Mr. G. F. Wilson, then planting his Wisley garden, was another grand helper. He was kind enough to let me come and do actual spade work with him. I remember especially one strenuous day when we formed a mound in about the middle of the position of the present rock garden (Jekyll, 1937: 4–5).

The role of Wilson's gardener is undocumented, but no doubt great. Wilson at one point noted the successful cultivation techniques of his gardener at Heatherbank, who "made a bed of Tuberoses on the lawn, and they have better blossoms than any he grew under glass. This may be not new but I think is worth a note" (Wilson, 1890). Alfred Tatnall, during Wilson's last decade of life, was no doubt largely responsible for the hands-on cultivation of the plant collection.

Wisley was never "completed" as a garden; its purpose being experimental, rather than providing a domestic setting, it was continually developed in different ways. Replying to Ellacombe's praise in 1883, he concluded that "there is still much to do – it will take the remainder of the year to

complete the general lines of the garden, with all the time I can give to it” (Wilson, 1883b).

Mr. Wilson says when explaining the details of his plan, “I am only building the house yet; when that is done, I will begin to furnish it. We hardly know what interpretation to put on the latter sentence, as the collection of alpines, Ferns, and flowering shrubs is already a very rich one” (D., 1887).

In 1895, John Cornhill,¹ who had written that first article about the garden fourteen years earlier, wrote that Wisley had now “changed unrecognisably”:

the aspect of Oakwood has been changed during the last few years – so much so, indeed, as to be scarcely recognisable to anyone who has not seen it for some time. Ten years ago the greater portion was a wild garden pure and simple, but this has been changed, though in such a manner that whilst the needs of each plant are well provided for, the natural features of the place are rather heightened than destroyed. It now consists of, so to say, a series of gardens differing from each other both as regards general appearance and the character of their occupants (Cornhill, 1895a: 358).

And even in his last years Wilson was continuing to change things at Wisley and elsewhere. In 1900 *Country Life* reported that “On the hillside near the small lake Mr. Wilson is creating a new feature by planting all the finer hardy shrubs, with groups of lilies sheltering between them”, and the following year remarked on an even more substantial project: “Mr. Wilson is establishing near his residence, Heatherbank, Weybridge Heath, a cottage garden on a similar plan to Oakwood. ... In the course of a few years this will be an Oakwood in miniature” (Anon., 1900b). Was it Gishurst Cottage that was to be thus overhauled, or had Wilson entered into yet another

¹ John Cornhill, of Byfleet, often signed articles by his initials only; he lived a few miles from Wisley. He did not receive an obituary in the gardening press, so far as I have been able to trace, but I can confirm from ancestry.com that he was born in 1844 and died in 1931, and that he was described in the 1881 census as a market gardener, and in 1911 as a florist.

arrangement over a local property? Nine months later he was dead, and nothing beyond this hint ever surfaced about the proposed cottage garden.

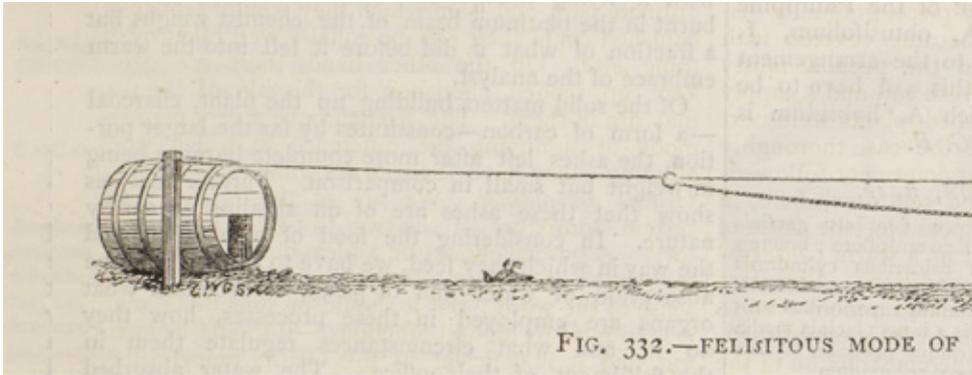
Pest control 1: before Wilson

In 1897, *Country Life* began an article on Wisley with a lush evocation of what Wisley was like before the arrival of the A3 and the M25: “Embosomed in woodland and disturbed only by the song of birds is Wisley, the garden that Mr. G. F. Wilson, F.R.S., has formed in this Surrey wild” (Anon., 1897: 319). Wilson, and/or his gardener Tatnall, took a great interest in the natural history of the garden at Wisley. The weather records are full of notations of the first observations of birds (wryneck, cuckoo, nightingale). Unfortunately, neither Wilson nor Tatnall ever wrote a systematic account of the wildlife of the garden, and the earliest detailed record we have is an article written five years after the RHS acquired Wisley, so before it had much opportunity to alter the environment (Wallis, 1908).

Local wildlife is not always advantageous to the gardener, however, and Wilson was to become an important figure in the history of pest control. With the larger categories of garden pest, Wilson and his gardeners used the traditional methods of trapping and shooting. The entry in the Oakwood weather volumes for 31 December 1890 records the year’s totals for animals trapped: 265 mice, 70 rats, 30 moles, 58 pheasants, and 40 partridges (this total perhaps extending beyond the bounds of pest control in the strict sense).

One of the first and simplest methods of pest control discussed by the Horticultural Society was the use of cats as bird-scarers. An early Fellow, Peter Kendall, published a proposal to keep a cat on a leash attached to a wire running the length of the required area (Kendal, 1833). Wilson was probably familiar with this article; at any rate, at Heatherbank, he put his cat Fat Tommy to the same use. (Warning: Wilson’s idea of humour may grow stale with surprising speed.)

Lastly, we may mention the cat. It happened to us in the course of the summer to see a monster cat, a ferocious one too, keeping guard over some Peas. The beast was only a counterfeit representation in tin, but he was very large and very fierce, and had, moreover, a sort of waggish look which excited our laughter, somewhat immoderately, we



fear, for it provoked a remonstrance from the gardener, who declared in all seriousness that having tried many a plan to keep the birds off, none was so efficacious as this.

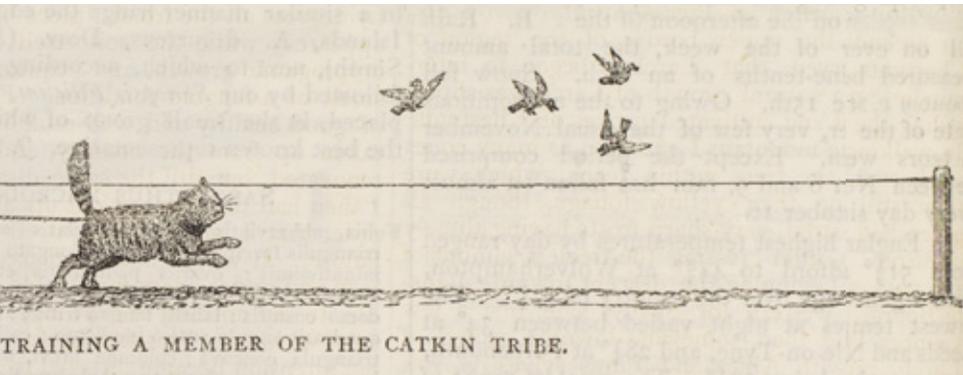
Be this as it may, we think the plan illustrated at fig. 332 a better one still. We can testify from actual observation that it does frighten the birds, and we are glad to say it frightens more than it kills. But what about the cat? How does she like it? Well, those we have seen were early tutored to their work, and showed no objection to “cordon training.” They were moved from place to place as circumstances demanded, and if provided with the necessary food and shelter, were as happy as cats ought to be. In proof of our assertion we append a letter purporting to be from the cat depicted in the accompanying sketch.

“Weybridge.

“Dear Editors, – When your woodcutter was down here lately, he advised me to send you a *rough scratch* of my position in Mr. W--’s garden, and he requested me at the same time to briefly *tabbylate*, for the *purr* usal of your readers, how I *purr* tect my master’s plants from being *potted* by small birds. I can only trust your readers will believe my *a-mews-ing tail!*”

“Here is the sketch (fig. 332), as well done as my *talont* will admit. You see I live in a nice clean beer-barrel, *purr*posely selected for me,

Fig. 3 (above). Wood-engraving from the *Gardeners’ Chronicle*, November 23, 1872.



so that whenever I ‘wire-in’ to rest at night my *felines* revert to my master’s favourite ale-o!

“This rough scratch explains better than any words how I ‘clear a bed,’ and daily practise the art of ‘forcing’ and ‘striking.’ I also teach the birds the equally useful art of ‘cutting.’ The cat-kin tribe are known always to be well ‘up to the scratch’ in a garden; so I may say, as a concluding *claws*, that I never encourage any *pussy-lanamous* feelings towards sparing sparrows, or *purr*-tecting small birds. May such *felines* always be *fur* from, yours truly, *Mr. W--’s Cat.*” ([Wilson], 1872)

As for the less mobile pests, which a cat could not be expected to take an interest in (my own attempts to train a cat to kill slugs were greeted with contemptuous incomprehension), Wilson applied his ingenuity to the problem of slug deterrence and came up with a mechanical solution:

At first we set Cabbage leaves as traps, these diverted them from the plants, and many remained to be killed in the morning; but some plants were overlooked, and so unprotected. So I thought of a suggestion made to me some years ago by the Rev. H. Ewbank, of Ryde, that zinc collars would keep off the enemy. Messrs. Braby & Co., Fitzroy Works, Euston Road, cut me strips of many shapes and many depths. We find that a strip 4 inches deep of “9½ hole” pierced zinc is an effectual protection: it can be pierced by galvanised iron wire (Wilson, 1876a).

Neither cats nor collars would prove satisfactory in dealing with insect or fungal pests, however. The earliest remedies recorded were applied

with either sponges or syringes, which were used from the seventeenth century for watering and before long as devices for spraying pesticides: soap suds and hot water were probably the earliest chemical agents used, supplemented before the nineteenth century with urine and sulphur. It was not until the 1830s that John Read developed a syringe which discharged a continuous stream of fluid, as opposed to squirts which needed the gardener's muscles to squeeze them out.

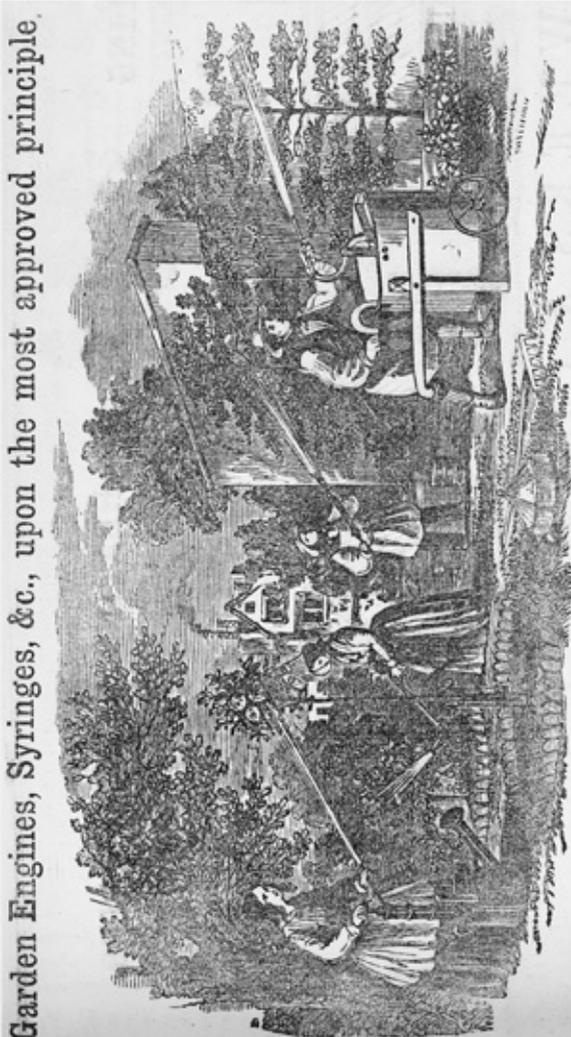
Fumigation, in the early nineteenth century, was confined to the glasshouse, and relied on stationary equipment, i.e. modified braziers, in which the fumigant could be heated and its fumes spread to fill the enclosed space. It was not until 1832 that John Warner developed a hand-held (or "detached") fumigator that could be fitted to a bellows and the fumigant pumped instead of relying on atmospheric convection for its distribution; by this means varying amounts could be applied to individual plants (Elliott, 1996).

Edward Tucker, gardener to John Slater of Margate, was described in the *Gardeners' Chronicle* in 1847 for his development of what became known as lime-sulphur for treating a fungal infection of grapes. His early version was made by stirring up lime with "flowers of sulphur" in cold water, and applying the resulting mixture with a sponge (Berkeley 1847). Lime-sulphur remained the principal fungicide until experiments with copper sulphate and the invention of Bordeaux mixture in the 1880s, an innovation which coincided with the development of knapsack sprayers, which freed the gardener from having to keep his barrel of fluid handy (Large, 1940).

Insect pests, in the nineteenth century, did not cause the panic or devastation that fungus infections did; potato blight and phylloxera on grapevines destroyed crops and communities, but insects remained irritating rather than disastrous. One of Sir Joseph Banks' papers in the *Transactions of the Horticultural Society* was a pioneering study of the epidemiology of the woolly aphid (Banks, 1817, and see Elliott, 1995: 125). Half a century later, the RHS Scientific Committee publicised an important deterrent for winter moth, that had been developed earlier in France: the use of greased bands to intercept the caterpillars as they ascended trunks (Report of meeting of 7 June 1871, *Journal of the Royal Horticultural Society*, 3: lxxx–lxxxii); Wilson adopted this practice in his own gardens (Wilson, 1891e).

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Fig. 4. Sprayers and syringes in use at the time of the introduction of Gishurst Compound: advertisement by Richard Read, from *Gardeners' Chronicle*, 30 April 1859, p. 380.

Lime-sulphur was put to work on insects as well as fungi; in January 1858 J. James, gardener at Rossall Hall in Fleetwood, published a letter in which he described an experiment in using a mixture of lime and sulphur to banish red spider from a peach house, which the editor glossed as “An excellent device” (James, 1858). But a follow-up letter suggested the hazards of overdoing the sulphur:

Having observed in your columns a recommendation to use sulphur and lime for destroying red spider, my gardener implicitly followed the directions. The red spider was destroyed, and about 100 Strawberry plants were entirely killed, and other plants much injured (T.H.S., 1858).

There was plainly a market for a means of insect control which was not deleterious to plants as well; and Wilson stepped in with what became his most celebrated contribution to horticulture.

Pest control 2: Gishurst Compound

Wilson was by profession an industrial chemist, in the second generation of a family firm. The company had been founded by his father, William Wilson, a failed ironfounder, together with a partner named Benjamin Lancaster; it was originally called Edward Price and Co., the name Price having been chosen because it was a name in Lancaster’s family. The firm’s initial success lay in the processing of coconut oil as a substitute for tallow in candle-making; in 1830 they acquired James Soames’ patent, granted the previous year, for pressing the oil by hydraulic pressure to separate the solid from the liquid parts more efficiently. Lancaster eventually sold his interest to Wilson and his sons, James, George, David, and Robert; the firm was floated as a joint-stock company in 1847, under the new name of Price’s Patent Candle Company. By mid-century Price’s had a coconut-pressing works in Battersea (demolished in the early 2000s), another factory in Battersea, and further works in Liverpool. At Bromborough Pool, outside Liverpool, the Wilsons built a pioneering industrial village for its employees, and they set up schools at each of their locations for the children they employed.¹

¹ The Factory Act of 1844 did not abolish child labour, but limited it to ten hours a day; it was not until the Factory and Workshop Act of 1878 that the employment of children under 10 was made illegal.

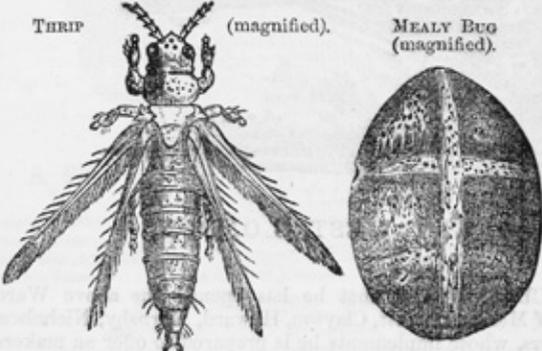
During his tenure as a director of Price's, George Fergusson Wilson appears to have been the experimentalist and technical innovator, his brother James the businessman. The firm, having begun by producing an improved tallow from coconut oil, expanded into the refining of fatty acids, following in the footsteps of the great French chemist Michel-Eugène Chevreul, famous in the gardening world for his later theory of complementary colours. Chevreul had identified the fatty acids early in the nineteenth century, publishing a treatise on the subject, *Recherches chimiques sur les corps gras d'origine animale*, in 1823; in 1825 he and Gay-Lussac patented a method of making candles from stearic acid, and the Wilsons adopted his method, developing a market for "composite" candles during the 1830s. In the 1840s Price's moved into the manufacture of stearine using a steam distillation process. Chevreul had identified glycerine as one of the fatty acids, and in 1854 Price's developed a method of purifying glycerine; for many years it was the only manufacturer of pure glycerine in Britain.¹

During the 1850s Wilson experimented with a replacement for common lime-sulphur as an insecticide, and in 1858 took out a patent on a formula called Gishurst Compound, named after his cottage near Heatherbank. The *Gardeners' Chronicle* for 6 November 1858 ran a leader, anonymous as usual but surely by John Lindley, the editor, announcing that "there is

¹ A quick glimpse at the subsequent history of Price's Patent Candle Co. It swallowed up other, smaller companies in the late 19th century and Edwardian period, and branched out into the production of Motorine (an oil for motor cars) and other products. In 1919 it was acquired by its major competitor, Lever Brothers, and in 1922 devolved into a new firm called Candles Ltd, jointly owned by Lever Brothers, Shell, and other companies. The Liverpool works were separated to form part of the Unilever Group, eventually becoming Unichema Chemicals in 1977, and twenty years later being taken over by ICI. Candles Ltd continued to operate on the Battersea site, and gradually its joint owners dropped away, leaving BP, who sold the company in 1991. Now owned by an Italian company, and once again under its former name of Price's Patent Candle Co., it moved its head office to Bedford, and remains the largest candle manufacturer in Britain. (See www.prices-candles.co.uk/history/historydetail.asp; www.nationalarchives.gov.uk/a2a/records.aspx?cat=140-zp&cid=-1#-1; and Unilever Archives Historical Information Sheet: Price's Chemicals Ltd.)

GISHURST COMPOUND, PATENTED.—
 For preventing and destroying Red Spider, Scale, Mealy Bug, Thrip, and Green and Brown Fly.—See *Gardeners' Chronicle*, Nov. 6, 1858.—To be dissolved $\frac{1}{2}$ or $\frac{1}{4}$ lb., or less, in a gallon of soft water, and applied by means of a syringe or a soft brush.

THRIP (magnified). MEALY BUG (magnified).



On Orchids it may be used in a strong lather, applied by a shaving brush, but on tender young Geranium shoots a solution of 2 oz. to the gallon will be found sufficiently strong.

Sold in boxes at 1s. 6d. and 6s. each, with directions for use, and printed opinions of Mr. Rucker's Gardener, Lady Dorothy Neville's Gardener, Sir William Hooker, Mr. Rivers, Messrs. Francis & Arthur Dickson & Sons of Chester, and Messrs. Dickson & Brown of Manchester.

For Nurserymen the large size is recommended, but where the consumption is not large the compound will be found to keep its strength best in the small boxes.

Nurserymen and Seedsmen supplied by PRICE'S Patent Candle Company (Limited), Belmont, Vauxhall, London, S.

Fig. 5.
 Advertisement
 for Gishurst
 Compound from
Gardeners' Chronicle,
 26 February
 1859, p. 182.

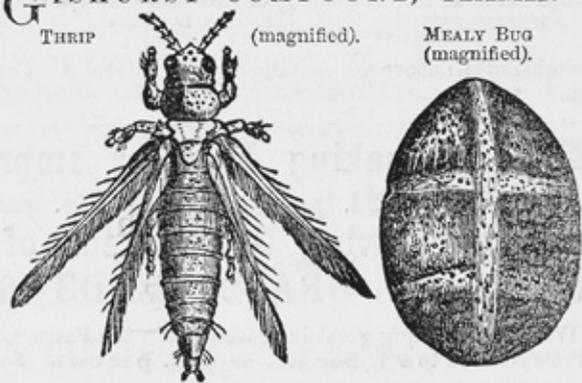
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great probability of an effectual remedy for mildew and red spider having been discovered wholly free from the objections attaching to sulphur either in powder or in a volatile state”.

At present our information amounts only to this: that Mr. WILSON, the very able and scientific manager of PRICE'S Candle Company, has prepared a soap, which being dissolved in water and applied with a syringe does effectually and without the least risk all that flowers of sulphur can do. It is said that one of the principal nurserymen near London has been trying the soapy water, of different strengths, and is very favourably impressed with its efficacy. Six ounces of the soap in a gallon of water killed mildew for the time and continued to keep it down when applied weekly.

GISHURST COMPOUND, PATENTED.—

THRIP (magnified). MEALY BUG (magnified).



GREEN FLY on Roses and Greenhouse Plants safely got rid of by syringing with PATENT GISHURST COMPOUND, 2 oz. to the gallon of water.

Extract from leading article in *Gardeners' Chronicle*, April 9, '59.

"That it really kills red spider, aphides, mealy bug, thrips, and scale, it is impossible to doubt in the face of reports of practical men, among whom we may mention Mr. D. Judd, of Althorp Gardens"—then follows a caution against the use of a too strong solution.

The Gishurst Compound is sold in boxes at 1s. 6d. and 6s. each, with directions for use, and printed opinions of Mr. Rucker's gardener, Lady Dorothy Nevill's gardener, Sir William Hooker, Mr. Rivers, and other eminent authorities. For Nurserymen the large size is recommended, but where the consumption is not large the compound keeps its strength best in the small. The undermentioned Seed Merchants, Nurserymen, &c., having taken in supplies are prepared to sell single boxes:

Barratt, Bury St. Edmunds	Hawkins, R. T., Weymouth
Bass & Brown, Sudbury	Henderson, E. G. & Son, St.
Bell & Co., Newcastle-on-Tyne	John's Wood, London
Brown, D., Norwich	Henderson, A. & Co., Pine-
Cattell, J., Westerham	apple Place, Edgware Rd.
Cripps, T., Tunbridge Wells	Hooper & Co., Covent Garden
Deane & Co., London Bridge	Jefferies, W. B., Ipswich
Dickson, Francis & Arthur and	Kennedy & Co., Dumfries
Sons, Chester	Mackie & Stuart, Norwich
Dickson & Brown, Manchester	Mann, J., Brentwood
Dickson, Hogg, & Robertson,	Matheson, R. C., Gloucester
Dublin	May, J. & Co., 1, Wellington St.
Dickson & Sons, Edinburgh	Pattinson & Son, Hexham
Epps, F., Ashford, Kent	Perkins, J., Northampton
Epps, Maidstone	

Nurserymen and Seedsmen supplied by PRICE'S PATENT CANDLE COMPANY (Limited), Belmont, Vauxhall, London. S.

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Fig. 6. Advertisement for Gishurst Compound from *Gardeners' Chronicle*, 16 April 1859, p. 333.

Alas, Lindley was betrayed by illegible handwriting, and gave the name of Wilson's product as "Gerhurst Compound" ([Lindley], 1858: 812)

In April 1859 Lindley returned to the subject, in a leader in the *Chronicle*.

Now that mildew, green fly, and all sorts of other pests are about to visit us, the time seems to have arrived for once more drawing attention to the substance called GISHURST COMPOUND. The preparation thus named is a soap of unknown composition, capable of being readily dissolved in water, in which state it is applied with a syringe or sponge to the plants infected. Although the winter is far from being the best season in which to test the merits of such a composition, yet it appears from many testimonials before us that it has already acquired a very high value in the estimation of practical gardeners. That it really kills red spider, aphides, mealy bug, thrips and scale, it is impossible to doubt in the face of the reports of practical men... (GC, 1859, p. 312)

He then gave brief instructions for dosages, based on letters received from a variety of gardeners:

MILDEW. 6 oz. to 1 gallon of water; 8 oz. is too much.

FERNS. A piece the size of a small hen's egg dissolved in a quart of water, applied with a brush, and afterwards cleaned with a syringe. ½ lb. to a gallon is too strong.

ORCHIDS. As with Ferns.

SOFT-WOODED PLANTS. ¼ lb. to a gallon. 6 oz. to the gallon for the most tender foliage.

HARD-WOODED PLANTS. More differences of opinion on this category: 1 lb. to a gallon (Lady Dorothy Nevill, Dangstein); ½ lb. (Daniel Judd, Althorp); 9 oz. (Bellis, Horton Hall, Chester).

And the correspondence began. Credentials came in from people like Thomas Rivers, the eminent nurseryman of Sawbridgeworth – "I have never yet found any remedy for the 'ills' of gardening so cheap and so easily applied" (Rivers, 1859) – Daniel Judd, head gardener at Althorp – "On the whole I consider the Gishurst compound the best thing ever invented or brought before the public for the uses for which it is recommended" (Judd, 1859) – and John Spencer of Bowood – "I consider you have invented

a valuable composition for assisting the gardener in keeping his plants, &c., free from those animal and cryptogamic pests..." (Spencer, 1859). Robert Errington, the head gardener at Oulton Park, and a well-known columnist in *The Cottage Gardener*, might have produced a credential, had he not died prematurely: "I was not long back in communication with Mr. Errington, whose lamented death is announced in last week's *Gardeners' Chronicle*, with a view to settle the question whether the substitution of Gishurst Compound for the soft soap be not in all cases an important improvement in winter and spring-dressing compositions. *The Inventor of Gishurst*." (Wilson, 1860).

Critics weighed in to disparage the claims made for Wilson's compound (which already, in its second year of production, was being abbreviated to "Gishurst" in the press). A pseudonymous correspondent argued that its use "played havoc with the paint and varnish" in his glasshouse; Lindley dismissed the complaint as the result of careless use, and concluded in a parenthesis, "[We think enough has now been said on this subject.]" (Judex *et al.*, 1859). Rash words. Wilson published a paper in the *Cottage Gardener* explaining that "Some considerable care is necessary in mixing the composition" (Wilson, 1859). And over the next few years, Wilson regularly contributed letters pointing out to critics that they had not followed the instructions properly. By 1862 he could quote letters from Australia about the successful use of Gishurst in that country. That there were problems in the use of Gishurst he did not deny; one of his notes (Wilson, 1861) was entitled "Removing the disagreeable smell from Gishurst Compound" (make up the formula 48 hours before use).

The first printed advertisement for Gishurst Compound appeared in the *Gardeners' Chronicle* for 26 February 1859 (p. 182); it cited the *Chronicle's* article of 6 November 1858, and provided magnified views of a thrips and a mealy bug. An augmented version appeared in the issue of 16 April (p. 333), listing 25 nurseries that acted as suppliers. After a while the mealy bug was dropped, as perhaps lacking visual interest or fright value, but for over a decade the illustration of the thrips appeared regularly. From 1874 the illustrated advertisements were phased out in favour of smaller, simply textual notices, which described Gishurst as "Used by many of the leading Gardeners since 1859" and "Has outlived many preparations intended to supersede it".

Gishurst Compound went on being sold well into the twentieth century (the minimum price for a packet rising from 1s. to 1/6 during the interwar years). It was finally superseded with the arrival of the synthetic pesticides which began to be produced during the Second World War. Sutton's were still offering Gishurst in the early 1950s, but by the centennial of its invention in 1958/9 it had vanished from their catalogues. Still, after nearly a century of continuous use, it is difficult to think of a pesticide that had a comparable career.

Plant breeding

The history of plant breeding has hitherto been investigated in a rather piecemeal fashion. The first accounts of the subject concentrated on theory – the realisation that flowering plants had distinct sexes (still a subject for dispute during much of the eighteenth century, and of hearty self-congratulation on the part of adherents of Linnaeus at the century's end, as anyone who looks at the huge coffee table books of Robert John Thornton will know); the first experiments at hybridisation, with *Dianthus* 'Fairchild's Mule' the first artificially raised hybrid to be documented, in 1717; and the attempts at working out both the mechanism of heredity and finding ways of predicting the results of crosses, up to the rediscovery of Mendel's work at the beginning of the twentieth century (Roberts, 1929; Zirkle, 1935; Olby, 1966). But since the world's most important food crops have hybrid origins, it is obvious that the practical history of plant breeding stretches back much farther than its conceptual history (Stearn, 1965); we may presume that this early history consisted simply of selecting and propagating the best offspring, but this time-honoured method, without deliberate crossing, continued to be practised into the twentieth century by breeders like William Wilks, whose Shirley poppies were the result of selection alone. Recently, we have seen good histories of plant breeding on a global and millennial scale from Noel Kingsbury and Peter Thoday (Kingsbury, 2009; Thoday, 2013). But for the world of ornamental plants, there is still no comprehensive history; the best work so far is the set of case studies published by Richard Gorer under the title *The Development of Garden Flowers* (Gorer, 1970).

The first programme of deliberate hybridising of a category of ornamental plants was carried out by the nurseryman William Rollisson of Tooting, starting in the 1790s, and the subject was Cape heaths; the results were

summarised in a paper published in Loudon's *Gardener's Magazine* when Wilson was a small child, listing the 285 cultivars Rollisson had by that time bred (Loudon, 1826). The *Transactions of the Horticultural Society* bristled with articles by enthusiasts such as William Herbert on the breeding of passion flowers, gladioli, and *Amaryllidaceae*, while early discussions of the mechanism of hybridisation trod inconclusively on Mendel's future territory.

During the first quarter of the nineteenth century most of the experiments in breeding ornamental plants were focused on greenhouse plants; in the second quarter, on producing bedding varieties of the new half-hardy genera being introduced from abroad (the 1840s saw the launch of compact bedding pelargoniums, petunias, and verbenas, followed by calceolarias and salvias, and later coleus and tuberous begonias, all of which were the subject of trials at the RHS garden at Chiswick); in the third quarter, the first artificial orchid hybrid was produced by the Veitch nurseries; in the fourth quarter, hardy perennials such as peonies, sweet peas, and delphiniums became the most fashionable categories for breeding.

"Mr. Wilson is an enthusiast, as all the flower world knows", reported the *Gardeners' Chronicle* in 1893, "and raises his own seedlings" (Visitor, 1893). There is not yet an easily searchable record of Wilson's awards for plants exhibited at RHS shows, but some of them were definitely cultivars of his own raising, and while some of them were the result of selection only, not crossing – e.g. *Phlox subulata* 'G. F. Wilson', which was to become one of the most popular phloxes in early twentieth-century Britain, "most useful for covering big drifts in the rock garden" (Symons-Jeune, 1953: 116) – others were definitely hybrids of his own creation.

Wilson's greatest achievement as a hybridist was with *Primula*. His primrose investigations seem to have begun in the mid-1870s; in 1876 he exhibited a hybrid primrose, not of his own raising but one that had been bred a decade earlier (B., 1876), and annoyingly given the name *Primula intermedia* – not to be confused with the natural hybrid *P. × intermedia* or any of the other things that have temporarily borne that name. On 23 February 1878 he exhibited the first of his own cultivars, 'Scott Wilson', and at a second showing on 9 March it was awarded a First Class

Certificate (votes unanimous). In 1889 Wilson received further awards for 'G. F. Wilson' and 'Quakeress'; 'Oakwood Blue' received its FCC on 12 April 1890. The Oakwood weather volumes record that in the following year, 'Oakwood Blue' flowered on 12 February; on 16 March it was taken up "for the Botanic" [Kew or Edinburgh?], and on 19 March it was painted by an unnamed artist – presumably H. G. Moon, for his plate of the flower was published in *The Garden* that June.

In the text to accompany Moon's plate, the writer ("T.A.", possibly Thomas Archer-Hind), said:

So far... the production of blue Primroses has been limited to a couple or so of raisers. The most successful of these is Mr. G. F. Wilson, who amongst many things has made the production of blue Primroses a specialty, being, it would seem, exceptionally favoured in natural situation, surroundings, soil, and those features in which the hardy Primrose may be said to delight. ... Oakwood Blue, is neither the first nor the latest of the Weybridge seedlings. It is several years since Scott Wilson was certificated by the floral committee of the Royal Horticultural Society, but Oakwood Blue shows a very marked advance on that variety, not only in greater robustness of habit, but also in density of colour and of substance in petal. ... the variety is pin-eyed, not of course a serious defect – in fact, not one at all to the ordinary observer, but the somewhat exacting florist could find fault with the, to him, deformity. We have not yet got to the stage when hardy Primroses, except on the exhibition table must be judged by florists' laws... (A., 1891).

'Oakwood Blue' soon became accepted as the best blue primrose available; in the tenth edition of *The English Flower Garden*, William Robinson, who had hitherto named 'Scott Wilson', switched to 'Oakwood Blue' as a recommended hybrid. As so often in horticulture, one must take colour terms with a degree of latitude; a writer in *Country Life* waxed lyrical on the distinction of shades of blue:

Blue the colour scarcely is, not the blue that draws us to the fragrant Violet or the Gentianella of high alpine pasture. The colour is a mingling of violet and blue, sometimes as intense as sapphire, sometimes clear as a summer sky. (Anon., 1897: 320).



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Fig. 7. *Primula* 'Oakwood Blue'. Chromolithograph after a drawing by H. G. Moon, from *The Garden*, 27 June 1891.

Wilson's main rivals in the production of blue primroses were the great nurseryman Max Leichtlin at Baden, and Richard Dean of Bedfont, one of the major gardening journalists of the late nineteenth century. Dean introduced such varieties as 'Blue Gem', but as a writer in *The Garden* (possibly Thomas Archer-Hind) said, "The surroundings there are very different from those at Weybridge; the soil is cold, of a stiff light yellow clay, subject to excessive moisture in the winter and baking hard in the spring; also much exposed to wind and sunshine. These are hardly favourable conditions for Primrose culture, and yet somehow Mr. Dean has never been excelled in the strength of his plants..." (A., 1891).

A later Director of Wisley, Frederick Chittenden, tried and failed to find evidence for Wilson's method in breeding 'Scott Wilson', and had to settle for getting an account from Leichtlin:

I simply wished to state that we were workers of the same strain, only by a different method, and by fertilizing the old blue Polyanthus I came quicker to the matter; after this trial I also took to the system of selection and did not try other crosses. I certainly never ventured to give advice to Mr. Wilson who was a cultivator far superior to myself. The Primroses of Messrs. Veitch came either from Mr. Wilson, or from Mr. Dean at Ealing, who raised a 'true blue.' I have never sent any to Messrs. Veitch. Mr. Wilson produced his strain from seedlings of Scott Wilson and he again selected seed from these and so got his blue race. Whether what I presently cultivate are superior I am unable to say because I was not for some years on a spring visit to England, but I cannot imagine that any purer blues can be seen than among mine (Chittenden, 1922, pp. 195–6).

Chittenden reported that blue primroses in the "Wisley strain" were still appearing spontaneously at Wisley, twenty years after Wilson's death; so it is apparent that, wherever he carried out his breeding experiments, he planted whatever he regarded as successful in his experimental garden.

By 1895 Wilson was turning his attention to auriculas, and one commentator said that "I do not see that a really blue Auricula is out of the range of possibility" (Cornhill, 1895: 358). Wilson did not achieve this goal.

Plant introductions

“Mr. Wilson is ready to welcome strange plants from all parts of the world” (Ellacombe, 1883).

I had lately a pleasant criticism on Oakwood, a first-class amateur lady gardener owning a beautiful garden, after having carefully looked over our plants, said, “I hardly know what this place should be called – it isn’t a garden.” I agreed it was not a garden. She then said, “It is a place where plants from all parts of the world grow wild.” This is exactly what I am aiming at, and if any success has been scored, it is in great part due to friends in many countries having helped with seeds and plants (Wilson, 1891d).

Wilson’s articles and the Oakwood weather volumes record that plants were provided for Wilson by Sir William Bowman, Canon Ellacombe, the Revd Henry Ewbank, Sir Joseph Hooker, Charles H. Hovey, James McIntosh, Frank Miles, Lady Dorothy Nevill, William Robinson, and Wolley-Dod (most likely Charles, but his son Anthony, the plant collector, might also be a source); there is a reference to Marianne North visiting Oakwood and transplanting moss, but it is uncertain whether she was bringing or taking. Nurseries from which Wilson obtained plants included those of Peter Barr, William Paul, James Smith of Darley Dale, Thomas S. Ware, Anthony Waterer, and on the continent André Correvon, Latour-Marliac, Max Leichtlin, Victor Lemoine, Eugène Verdier, Van Houtte, and Van Tubergen. His son Scott collected plants for him as well, in particular Alpine gentians. But there must have been many more sources not documented. (His earlier Heatherbank notices name Richard Dean, George Maw, and Thompson & Morgan as additional suppliers.)

Wilson seldom appeared in the gardening press as the first person to grow new introductions; the plants listed in his Wisley plant books range from British natives, through long-established garden plants, to plants introduced in the 1860s and 1870s, which Wilson may have attempted to grow at Heatherbank with limited success and wanted to establish better conditions for. It is worth noting, though, that seventeen plants were painted for reproduction in *The Garden* from specimens grown in Wilson’s gardens, in one case by Wilson’s wife (see Table 2 for details); this is not a large total compared to the totals for Robinson’s own garden at Gravetye Manor, let alone Kew, but it compares well with that for Munstead Wood.

One plant which Wilson seems to have been the first to exhibit was *Rheum moorcroftianum*, which he showed in 1895, the year of its introduction; Maxwell T. Masters commented that “If it be really what it professes to be, it should be quite hardy, as it comes from an altitude of 12,000 feet” (Masters, 1895). He was also growing *Veronica* (now *Hebe*) *colensoi* in 1893, the year it first flowered and was illustrated in *Curtis’s Botanical Magazine* (tab. 7296).¹ (Wilson’s plant lists show New Zealand veronicas more than once; these began to be introduced in the 1860s, and were still not widely grown in the late nineteenth century.) Again, Wilson was successfully growing *Shortia galacifolia* within a few years of its introduction: it was first exhibited in 1889, attracting much attention as the rediscovery of a lost plant, and when it flowered again at Kew in 1892, *The Garden* singled it out to encourage gardeners to try it (25 March 1892: 245). Wilson planted it in 1893, and in 1897 it was described as growing successfully in a dell with *Galax aphylla* and *Epigaea repens* to accompany it (Anon., 1897: 320). Jekyll recalled him being an early cultivator of *Primula japonica*: “It is still well-grown at Wisley, but it was a wonderful sight to see it for the first time some twenty years ago, when it was a comparatively new garden plant ... by the side of a shallow peaty ditch in shade in the lower ground” (Jekyll, 1937: 187).

He was also credited with being the first gardener to plant a hedge of *Rosa rugosa*; Jekyll remembered this, laden with hips, as one of her favourite images of Wisley (Anon., 1897: 320; Jekyll, 1899: 184). He may also have been the first to be noted for planting tropaeolums so that they would grow through hedges (Visitor, 1891; Anon., 1900b).

Some plant groups of special importance for Wilson

The range of plants grown, or at least experimented with, at Wisley during Wilson’s time was huge and diverse: agapanthus, *Arnebia echioides*, asters, begonias – second only to lilies as display plants at Heatherbank (Humphreys, 1876c) and tried at Wisley as well, *Choisya ternata*, cyclamens, daffodils, daphnes, delphiniums, gentians, gladioli, hellebores,

¹ Cheeseman later said that the *Botanical Magazine* illustration, which had been drawn from a specimen in Sir Joseph Hooker’s garden, was very different from the plant’s typical form in the wild. I think it likely that Wilson got his stock from Hooker, so he was probably also growing the atypical form.

Table 2. List of colour plates in *The Garden* based on plants from Wilson's gardens.

Date	Subject	Artist
8 July 1876	<i>Primula intermedia</i>	Anon.
12 August 1876	<i>Lilium krameri</i>	Mrs G. F. Wilson
8 November 1879	<i>Bletia hyacinthina</i>	Constance Pierrepont
31 January 1880	<i>Lilium hansonii</i>	Mrs Duffield
15 January 1881	<i>Galtonia candicans</i>	Mrs Duffield
19 March 1881	<i>Meconopsis wallichii</i>	Mrs Duffield
2 February 1884	<i>Lilium speciosum</i> 'Melpomene'	Anon.
8 March 1884	<i>Schizostylis coccinea</i>	Anon.
20 February 1886	<i>Salpiglossis sinuata</i>	Mrs Duffield
3 April 1886	<i>Alstroemeria</i> hybrids	Mrs Duffield
8 May 1886	<i>Lilium canadense</i>	Mrs Duffield
3 July 1886	<i>Lilium superbum</i>	Mrs Duffield
4 September 1886	<i>Hypericum</i> <i>oblongifolium</i>	Mrs Duffield
14 March 1891	<i>Lilium szovitsianum</i>	H. G. Moon
27 June 1891	<i>Primula</i> 'Oakwood Blue'	H. G. Moon
12 November 1892	<i>Hibiscus huegelii</i>	Champion Jones
3 November 1894	<i>Calochortus</i> spp.	Gertrude Hamilton

ixias (the Oakwood weather record for 1894 names ten cultivars, all long vanished: see Table 3), meconopsis, montbretias (*Crocsmia* hybrids), *Ophiopogon*, penstemons, pernettyas (now included in *Gaultheria*), *Petasites*, pinguiculas, polygonums, purple-leaf plums, *Rhexia virginica*, *Schizostylis*, Sikkim rhododendrons, scillas, soldanellas, trilliums, tulips, vacciniums. Not all of these ended up being referred to in the gardening press, so perhaps some of them were failures.

Among the categories of plant with which Wilson was associated, ferns, irises, lilies, and calochortus call for some extended comment.



Fig. 8. *Schizostylis coccinea*. Chromolithograph after a drawing by an unnamed artist, from *The Garden*, 8 March 1884.

Table 3. *Ixia* cultivars grown by Wilson.*

1	Pallas	Pale yellow
2	Flora	Violet striped
3	Niteus	Carmine purple
4	Plantus	Yellow black centre
5	Eveline	Violet eye
6	Hector	Wine red
7	Lady Slade	Rosy
8	Mars	Brownish red
9	Galathaea	White blue centre
10	Hubert	Brownish lilac black eye

* from the Oakwood weather volume for 1894.

Wilson grew many sorts of ferns, some in boggy conditions, others in dry; some have been mentioned earlier (Anon., 1884). In a very early article about Wisley, he recalled that “At a sale at Stevens’ two professional authorities advised my buying *Todea superba* [now *Leptopteris superba*]; it is now in perfection on a turf pit in a thick part of the wood” (Wilson, 1883a: 178). This New Zealand fern was introduced by the Veitch nurseries in 1861; Wilson’s purchase at Stevens’ may have originally been for Heatherbank, but he indicated that it had become part of the Wisley planting. In 1882 Wilson exhibited *Hypolepis millefolium*, and it received a Second Class Certificate (= Award of Merit).

Wisley became so well known for irises that one article about it was entitled “A Japanese Iris Garden” (Visitor, 1893). Two species in particular caught that writer’s, and the gardening public’s, attention: *Iris kaempferi* (now included in *I. ensata*) and *Iris laevigata*. Of the former, “in no other spot in England is got together such a splendid collection, or grown in a more natural way”. “Visitor” marvelled at Wilson’s growing *Iris laevigata* in water: “It was formerly considered fatal to permit this”. Wilson himself announced that *Iris kaempferi* also did well in water: “A few plants which I tried with the roots in the water look healthy, and are blooming well, and a visitor to our garden tells me that he has seen a sketch taken in Japan where the plants were quite in the water” (Visitor, 1893). Wilson’s



lesson about *I. laevigata* was absorbed by the gardening community, but his experiment with *I. kaempferi* ignored. Compare an experimentalist of a later generation, Christopher Lloyd, and his experiences: “Writing in *Country Life* on moisture-loving plants that yet will not tolerate total immersion, I cited *Iris kaempferi* as being particular about good drainage during its dormant season. Well, I mean to say, this is the pap on which all gardeners have been reared. *I. laevigata* goes under water; *I. kaempferi* stays above.” He was then challenged by a reader who had successfully grown *I. kaempferi* in the water, tried it himself with utter failure, attempted to explain the result by assuming the reader had confused *kaempferi* with *laevigata*, was disabused of this notion by photographic evidence, and concluded “This was too sickening, and I have been in a sulk about it ever since” (Lloyd, 1970: 364).

Fig. 9 (above). The “Japanese iris garden” at Wisley, wood-engraving from *Gardeners’ Chronicle*, 1893, p. 497.

Table 4. Lilies grown by Wilson at Wisley.

Wilson name	Current name where different
<i>Lilium auratum</i>	
<i>Lilium auratum macranthum</i>	<i>Lilium auratum</i> var. <i>platyphyllum</i>
<i>Lilium auratum pictum</i>	<i>Lilium auratum</i> 'Pictum'
<i>Lilium auratum rubro-vitatum</i>	<i>Lilium auratum</i> var. <i>rubrovittatum</i>
<i>Lilium auratum virginale</i>	<i>Lilium auratum</i> var. <i>virginale</i>
<i>Lilium batemaniae</i> [sic]	<i>Lilium</i> × <i>elegans</i>
<i>Lilium brownii</i>	
<i>Lilium canadense</i>	
<i>Lilium candidum</i>	
<i>Lilium cordifolium</i>	<i>Cardiocrinum cordatum</i>
<i>Lilium giganteum</i>	<i>Cardiocrinum giganteum</i>
<i>Lilium hansonii</i>	
<i>Lilium humboldtii</i>	
<i>Lilium krameri</i>	<i>Lilium japonicum</i>
<i>Lilium leichtlinii</i>	
<i>Lilium martagon dalmaticum</i>	<i>Lilium martagon</i> var. <i>cattaniae</i>
<i>Lilium odorum japonicum</i>	?
<i>Lilium pardalinum</i>	
<i>Lilium parryi</i>	
<i>Lilium parvum</i>	
<i>Lilium philadelphicum</i>	
<i>Lilium polyphyllum</i>	
<i>Lilium richardi</i>	?
<i>Lilium speciosum</i>	
<i>Lilium speciosum album</i>	<i>Lilium speciosum</i> var. <i>album</i>
<i>Lilium speciosum lancifolium</i>	?
<i>Lilium speciosum roseum</i>	<i>Lilium speciosum</i> var. <i>roseum</i>
<i>Lilium speciosum rubrum</i>	<i>Lilium speciosum</i> var. <i>rubrum</i>
<i>Lilium superbum</i>	
<i>Lilium szovitsianum</i>	
<i>Lilium tenuifolium</i>	<i>Lilium pumilum</i>
<i>Lilium</i> × <i>testaceum</i>	
<i>Lilium tigrinum</i>	<i>Lilium lancifolium</i>
<i>Lilium tigrinum flore pleno</i>	<i>Lilium lancifolium</i> 'Flore Pleno'
<i>Lilium tigrinum Fortunei</i>	<i>Lilium lancifolium</i> var. <i>fortunei</i>
<i>Lilium tigrinum jucundum</i>	?
<i>Lilium tigrinum splendens</i>	<i>Lilium lancifolium</i> 'Splendens'

Wilson's status as the "Lily King" was acknowledged in the gardening press (Anon., 1901: 103), and more than any other category of plant, it was lilies with which he was associated in the public mind: "in this class of plants he has obtained a world-wide renown. Probably every known species, or variety of species, has passed through his hands" (Douglas, 1880). One of Wilson's last publications was a talk he gave at the RHS Lily Conference in 1901, reminiscing about his experiences (Wilson, 1901). His opinions about the taxonomy of lilies were held in respect, whether he was asserting the likely hybrid origin of *Lilium krameri* or challenging the identification of lilies he had received (Humphreys, 1876a, 1876b). Take his account of the problems of identifying *Lilium hansonii*:

Its history is rather curious, and as it carries with it a lesson to be careful and patient in growing Lily bulbs with any suspicion of novelty about them, I give it. The bulb was bought by me at Stevens' [auction house] about nine years ago, and being unlike any I knew, was carefully potted and watched. Next year the bulb was found to be decaying, but with some small pieces growing; these were carefully repotted, and grew into bulbs, the first of which bloomed in 1875... I was then fishing in the Highlands; my gardener posted me a flower, saying that the Lily, besides being beautiful, had a smell like the white garden Pink... I directed that a flower should be sent to Kew, and the plant exhibited at South Kensington [at the RHS]. It was named *avenaceum* by the Kew authorities, and received a second-class certificate [equivalent to the modern Award of Merit] from the Floral Committee. On seeing the report, my friend Mr. Leichtlin asked if I had not made a mistake, as he had sent me a bulb of *L. Hansoni* which exactly answered the description of the Lily exhibited. My Lily book showed the root of *L. avenaceum*, and one of *L. Hansoni* which had not yet bloomed; when it did so it proved to be identical with the Lily called *avenaceum*. This last, though the flower agreed with the description of the true *avenaceum*, was unlike it in not having the Oat-like scales of the bulb from which its name is derived, and so was determined to be *L. Hansoni*. On the 18th of June, 1878, a fine pot was exhibited at South Kensington, and was then awarded a first-class certificate. We grew the bulb in two parts peat, one loam, and one road scrapings (Wilson, 1880a).

Lilies were a major feature of the garden at Heatherbank, before becoming even more important at Wisley, and in both gardens he began by growing



Fig. 10. *Lilium hansonii*. Chromolithograph after a drawing by Mrs Duffield, from *The Garden*, 31 January 1880.

lilies in pots so as to keep their roots clear from interference. He went on to develop a system of growing lilies in the ground in buried or partially buried casks with the bottoms knocked out, again so that the roots would not be affected by those of the trees and shrubs in their vicinity (Douglas, 1880; Wilson, 1891d). Sometimes the lilies were deliberately planted among trees for their protection, for example *Lilium* (now *Cardiocrinum*) *giganteum*, so the hollowed casks were necessary. “Mr. Wilson”, said James Douglas, “seems to instinctively select the position in his garden and grounds that exactly suits the requirements of the plants he cultivates, or if the essential conditions do not already exist he creates them in some way” (Douglas, 1880). And Gertrude Jekyll recalled Wilson’s cultivation of *Lilium pardalinum*, which had been introduced into England three years before Wilson bought the Wisley site:

“Those who had the privilege, some years ago, of seeing these swamp Lilies at Mr. Wilson’s wood garden at Wisley, when they were being tested for use in English gardens, will remember the astonishment that was produced by their size and vigour and beautiful effect in damp woodland” (Jekyll, 1901: 30; see Table 4 for a list of the lily species that Wilson is known to have grown at Wisley.)

Mariposa lilies were a late enthusiasm for Wilson; he reported that his interest in *Calochortus* had been prompted by a visit in 1891 from J.M.C. Hoog, of the Dutch bulb firm Van Tubergen, who had sought him out on the prompting of Max Leichtlin.

He said that in Holland they could grow *Calochorti* successfully in the open border, and there appeared to be no reason why I should not be able to do likewise. He gave every particular as to soil, situation, &c., and I agreed with him that I ought to succeed in their cultivation. I began in 1891. I think I may say that with many of the species and varieties I have succeeded; the growth has been strong, the flowers most beautiful and greatly admired by visitors... M. Hoog’s most important directions were to use very light soil and plant in the hottest position in the garden. This was done... It is possible that some species require stiffer soil than I have used, but this must be determined by experiment. The *Calochorti* are so very beautiful, that I think they will, when more generally known, be amongst the most admired of hardy plants in our gardens (Wilson, 1894e).



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Fig. 11. “Mariposa Lilies”, three cultivars of *Calochortus venustus*. Chromolithograph after a drawing by Gertrude Hamilton, from *The Garden*, 3 November 1894.

Wilson's article was illustrated by a painting by Gertrude Hamilton of three species; it was the most significant coverage *The Garden* ever gave to the genus, though in his short-lived periodical *Flora and Sylva* Robinson was to devote a major article to it. The *Gardeners' Chronicle* also devoted a special supplement to *Calochortus* in February 1902: it can definitely be said to be a cult plant of the Edwardian period; and Wilson was one of the first to promote it actively.

Microclimate and environment

"If we get the place", Wilson had thought on visiting the Wisley site, "I can make such a garden as has not been made before" (Wilson, 1883a). "There is a great variety of soil and situation", reported Canon Ellacombe in 1883, "so that a fitting place can be found for any plant, whether it requires sun or shade, dry soil or moisture, good friable loam or peat, or even marsh" (Ellacombe, 1883). Wilson replied that:

the only credit I can properly claim is that, from being an old inventor and experimentalist, I could see and use our advantages of soils and situations. ... It is an enormous advantage to be able in the same garden to try a plant under half a dozen conditions; perhaps only in one it shows itself in full health and beauty, but this tells what it, and probably plants with similar natural habits, like best. (Wilson, 1883b).

It was for this reason that Wilson continually referred to Wisley as an experimental garden, and despite whatever claims for its beauty were made by visitors and gardening writers, it was the successful culture of different plants in disparate conditions that was singled out as Wisley's distinguishing mark.

So what were the "half a dozen conditions" that the Wisley site offered, that so excited Wilson when he first visited it? He enumerated eight different soil types, each or most of which had multiple degrees of exposure and humidity:

In the 7 acres taken out of the farm, parts of which are now cultivated, we have eight distinct soils – black bog, rich bog earth, light ditto, strong loam, rich light loam, thin sandy loam, black garden soil, and gravel; all situations, from extreme of bleakness to perfect shelter; and degrees

of moisture, from deep bog to dry sunny banks: these gives the means of trying endless experiments at small cost (Wilson, 1883a: 178).

Alas, the vocabulary of modern soil science had yet to be developed; the concept of pH is little more than a century old, and was not standardised until the 1920s. The Horticultural Society's Chemical Committee had done valuable work on soils and fertilisers in the 1840s, and the degree of alum in the soil needed to change the colours of hydrangea flowers had been calculated, but if Wilson the industrial chemist undertook experiments on soil chemistry he did not publish the results. Lindley, after a decade's work on the part of the Chemical Committee, cautioned that "the influence exercised by soil upon vegetation is due as much to its physical conditions as to its chemical nature" (Lindley, 1855: 529), and Wilson's list of soil types suggests that he took Lindley's argument to heart. (He did not include peat in this list of soil types, so references to plants growing in peat (Castle, 1888b) suggest that he stocked parts of the garden with peat supplied from elsewhere.)

Lindley, drawing on the work of Dean Herbert, further argued that gardeners should not be unduly concerned about imitating the environmental conditions in which a plant was found in the wild: "PLANTS DO NOT GROW NATURALLY IN THE SOIL BEST SUITED FOR THEM... the reason why many plants are found in peculiar places is not at all because they prefer them, but because they alone are capable of existing there, or because they take refuge from the inroads of stouter neighbours who would destroy them". At a time when natural theology was emphasising the perfect adaptation of plants and animals to their environment, Lindley suggested a proto-Darwinian view of nature as characterised by imperfect adaptation. The lesson for the gardener was to experiment, and to "distinguish between natural *accidents*, such as soil, and natural *habits*, such as manner of growth coupled with atmospheric peculiarities" (Lindley, 1855: 535).

Wilson definitely worked on this principle, though he gave the credit for proclaiming it not to Lindley but to an unnamed Dutch botanist (Suringar?):

It is usually said, "Find the native habitat of a plant, and reproduce it as nearly as you can; if a Lily be found in shady places, grow it in

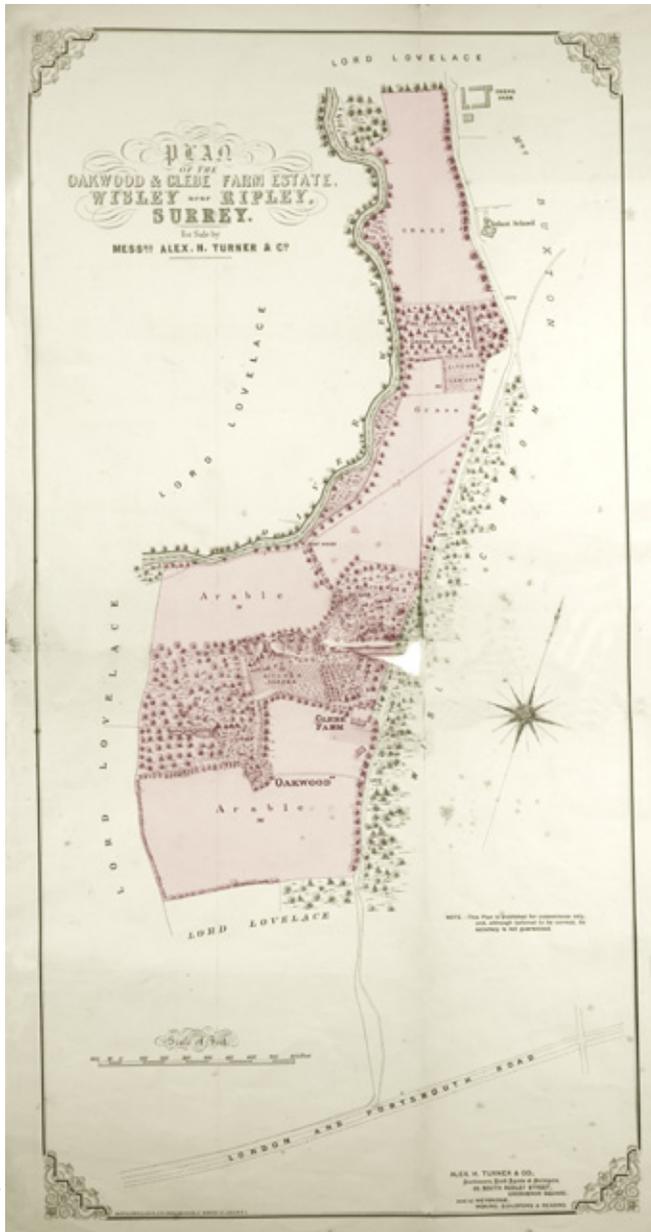
shade”; but a distinguished Dutch chemist-botanist, who has himself done great things as regards the introduction of different plants, especially into Java, once showed me that this was not a universal law, or rather that what appears to be the reproduction of the habitat is really not so, and that one unattainable condition sometimes changes the whole circumstances so completely that he had known plants which, in their own country, flourished in shade, when transported, thrive best in sun (Wilson, 1901: 380).

This principle may partly underlie Wilson’s insistence on trying plants in multiple situations. His success rate was much remarked on by horticultural correspondents; James Douglas summed it up by saying that he “seems to instinctively select the position in his garden and grounds that exactly suits the requirements of the plants he cultivates, or if the essential conditions do not already exist he creates them in some way” (Douglas, 1880). At Wisley, another commentator claimed,

he has succeeded in establishing a vast number of rare plants of other countries, and so far rendering them at home, that they not only exhibit their greatest beauty in uncurbed luxuriance, but testify of their appreciation of the arrangements made for their comfort by coming up from seeds in some cases by the thousand, and in vigour quite equal to that which they would exhibit in their native American woods, Swiss mountains, or Japan swamps or plains (Anon., 1886).

Wilson’s own advice was to “try experiments for yourself, plant a few bulbs in very different situations – the first year will tell you in which direction to steer” (Wilson, 1901: 380).

The word “microclimate” did not enter the scientific vocabulary until the twentieth century, but informal notions of climatic variation were part of the cultural apparatus of gardeners in the latter part of the nineteenth. The second quarter of the century had been the great period of hardiness experiments, when many plants that had formerly been treated as greenhouse exotics, from South African bulbs to camellias and rhododendrons, were tried in the open air and proved hardy. Some adventurous souls sought methods of altering the garden climate locally. Take the case of Col. Trevor Clarke, a colleague of Wilson’s on the RHS



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Fig. 12. Plan of Wilson's estate at Wisley, as offered for sale in 1902.

Council, and one of the most vigorous experimental hybridists of his day.¹ In order to grow tropical plants in the open air, he created a border heated by underground pipes running from a small boiler, which kept the soil temperature at 70–75°F throughout the year and allowed him to grow cannas, hedychioms, eucomis, ficus, and a range of other plants with a reasonable survival rate over the winter (Clarke, 1862). The RHS followed his example by creating a “geothermal border” at its garden at Chiswick, the year before Wilson became Treasurer (Council minutes, 20 March and 7 August 1865); how long it lasted is uncertain.

The most significant experiment in what could be called microclimate management in the middle of the nineteenth century was that of James Bateman, in his garden at Biddulph Grange in Staffordshire. The garden had been created during the 1850s, and was publicised in two major articles by the landscape gardener Edward Kemp, complete with detailed plans, in the *Gardeners' Chronicle*, in 1856 and 1862. Kemp announced that the “great and true secret” of the design of Biddulph was:

the preparation of a suitable home for nearly all the hardy members of the great plant family, which the curiosity or taste of man has discovered or cultivated...

The principal consequences have almost necessarily arisen out of the adoption of the rule of action just mentioned; and these are the creation of a great deal of picturesqueness, and variety of outline, and the production of an unusual number of separate and independent areas, each of which has a character of its own (Kemp, 1856: 679).

¹ Clarke, horrified by the effects of the cotton famine caused by the American Civil War, and the resulting unemployment in the industrial north, devoted much of his career to an ultimately unsuccessful attempt to breed strains of cotton that could be grown commercially in England. See his lecture to the RHS on cotton breeding, reported in the *Gardeners' Chronicle*, 22 April 1865: 366. On that occasion he also showed a collection of plants raised “from Jungle earth imported from India ... a method preferred by him to that of importing the usual ‘collection’ of Indian seeds”: perhaps an object lesson of the sort of over-reliance on native soil type against which Lindley warned in his *Theory of Horticulture*.

Varying degrees of shelter were provided by the subdivision of the garden into separate enclosed sections, separated by masses of rockwork, connected by circuitous paths or even by tunnel; one section was devoted to Chinese plants. Bateman's was not only an experimental but also a domestic garden, and the different areas of the garden were decorated with furnishings and garden buildings in different styles (Chinese, in the area called "China"); Wilson had no interest in introducing stylistic variety into Wisley, but he would have taken an interest in the segregation of areas for different types of plants. Bateman overlapped with Wilson on the RHS Council and on the Scientific Committee; there was plenty of opportunity for Wilson and him to share observations. Certainly the tenor of Lewis Castle's description of Wisley in the 1880s carries a suggestion of Biddulph: "Conventional paths and edgings are carefully avoided, the ground rises into innumerable mounds of varying height, or sinks into little dells and rivulets in the woodland portion" (Castle, 1888a). And at Heatherbank Wilson developed a feature that was probably copied directly from Biddulph: a rootery. At Biddulph the rootery was part of one of the rocky outcrops subdividing the garden, and consisted of a number of stumps upended so that the roots were exposed. "One hears frequently an outcry against rooteries, that is, places for the great roots of elm and oak ... levelled to the ground by storms ... But at Heatherbank there is a model rootery, the home of hardy azaleas, primroses, ivies, and many other plants as interesting..." (Anon., 1900: 305). The rootery was fully mature by the mid-1870s, and was the subject of three articles in *The Garden* in 1874 (Humphreys, 1874a–b, Wilson, 1874); Noel Humphreys' two articles included illustrations of spring flowers on the root-work.

One of the features of Wisley was the oak wood itself, which, said Wilson, "had not been disturbed for many hundreds of years, during which time oak leaves and bracken decaying had made a great depth of vegetable soil" (Wilson, 1900). On the more open hillside Wilson made more systematic and short-term experiments in areas he called the nursery and trial ground: these were subdivided by "scores of separate cribs hurdled off" (Anon., 1884), with the partitioned areas providing protection for categories of plants (*Meconopsis* species singled out in the article quoted). In addition, mounds were constructed or assembled in various areas for particular groups of plants, such as sedums, saxifrages,

and sempervivums (Castle, 1888b), or tuberous begonias in the shade of a large rhododendron (Anon., 1884). One commentator referred to a general “plan of planting a genus of plants, composed of many species, on mounds of earth and rock” (J.D., 1889).

In other parts of the garden he constructed special features to allow him to grow particular categories of plants. By 1884 he had developed a bog garden, with gaultherias, vacciniums, andromedas, and other plants growing wild, and a new fern rockery on which “*Allosorus crispus*, and other generally called ‘miffy’ plants are doing well” (Anon., 1884); that species (now *Cryptogramma crispera*) he found to succeed best “with a piece of sandstone placed on its crown; this protects it, and it comes out with renewed vigour beyond”.

In 1888 Wilson added a “miniature mountain, modelled partly after a very old friend in Perthshire, Schiehallion” – not a feature whose location can be traced at Wisley today. The west side was planted with seedling conifers from Himalayan seed, probably supplied by Anthony Waterer; the north side, with bog myrtle (*Myrica gale*) which Wilson had brought from Perthshire, and with menziesias transplanted from an old heath bed; the east side, with heaths provided by James Smith of Darley Dale (Wilson, 1888a). Rocky outcrops were provided at different points for alpine plants which included lewisias, androsaces, not to mention primulas.

Water gardening

One particular environment with which Wilson experimented must be dealt with separately. Even before his purchase of Wisley, Wilson had been busy devising a means for all interested gardeners to try their hands at bog gardening, and he explained his innovation in letters and articles in the *Gardeners' Chronicle* and *The Garden* (Wilson, 1876a, 1876b, 1877). His device was a miniature floating bog garden that could be installed in any garden pond:

To make a bog without some help from Nature is by no means easy, and when made requires attention. Now, any one with an open tank supplied with water can put into it an inexpensive raft, which will enable water, bog, marsh, and damp soil plants to grow, thrive, and take care of themselves.

The first raft which I tried was a very small and rough one; it required some management and checks to prevent the plant pans from slipping off, but our last one will carry a bog to place the pans on. The raft ... is sunk so much as to have about 2 inches of water over it; it is weighted with stone till receiving its full load of pans. Where plants require less depth of water, pieces of plank under the pans raise them up to the right height. We have as yet tried but a few plants, but such as have somewhat different requirements: – Buck-bean (*Menyanthes trifoliata*), *Sarracenia purpurea*, *Mimulus*, *Saxifraga peltata*, *Pinguicula*, Bog Myrtle, *Cypripedium spectabile*. We shall of course cover with many more plants. Probably a more ornamental raft might be made like a floating island – a round raft, with sides covered with moss and soil – but in this case the water should come out through the bottom through a great number of small holes, to prevent the soil working through. The tank and raft is an Elysium for toads, which are constantly giving their good diving and swimming lessons (Wilson, 1876b).

After a year's experience, he returned to the matter with a further refinement:

After a time, when the wood had become saturated with water, and its floating power thus lessened, we nailed large pieces of Cork underneath the raft; this enabled it to carry a heavy load. The plants now growing on the raft number twenty... As I believe this raft to be a good idea, and that it will prove a real boon to the gardening world, I should like my name to be associated with it, and therefore propose to name it the "Wilson Raft." (Wilson, 1877).

We have no idea how popular the Raft became with the gardening public; I do not recall coming across a single account of such a raft in any garden but Heatherbank. (Not even at Wisley.) But its reputation lingered; in 1884 a visitor to Heatherbank reported that "On the pond still floats the Wilson raft with its living freight of Iris, Bog Myrtle, and other marsh plants" (Anon., 1884).

Wisley had its ponds, and Wilson created a birch-fringed water garden, that developed such a reputation that Selfe-Leonard could illustrate it as

Table 5. *Nymphaea* cultivars grown by Wilson*

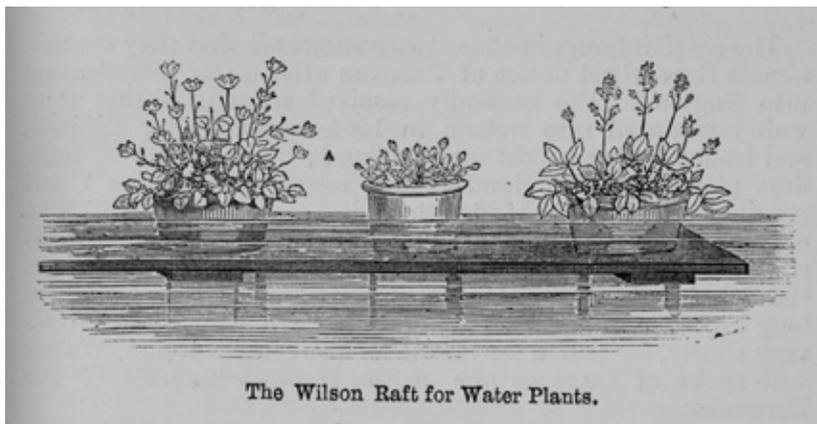
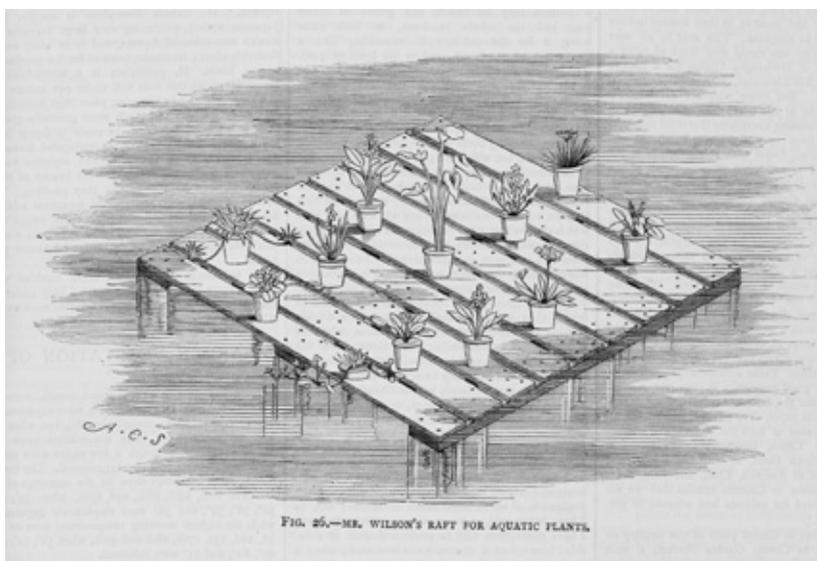
1	'Laydekeri Purpurata'
2	'Laydekeri Rosea'
3	'Marliacea Albida'
4	'Marliacea Carnea'
5	'Marliacea Chromatella'
6	'Marliacea Rosea'
7	'Odorata Exquisita'
8	'Odorata Rosacea'
9	'Odorata Sulphurea Grandiflora'
10	'Pygmaea Alba'
11	'Pygmaea Helveola'

* from Wilson's plant notes, *Country Life* 1897 and 1899: names have been given in modern orthography.

a model to be followed (Selfe-Leonard, 1901: 48), and *Country Life* could devote an article to it under the title "Making a Water Garden" (Anon., 1899). "The culture of water flowers", wrote the anonymous author, "is a new and delightful feature of modern gardening", not because the Victorians had failed to attend to pond gardening in general but because the pond had been transformed by the arrival of the new hardy hybrid waterlilies that had emerged from Latour-Marliac's nursery at the beginning of the 1890s (Robinson 1893, incorporating Marliac's own account of his work). Wilson received his first lot of Marliac and Laydeker hybrids in May 1894, and having succeeded with these, he added more in June 1898. (See Table 5 for the cultivars recorded as growing at Wisley.)

Wilson's last statement on water gardening was a rueful and troubled one:

Oakwood being in parts naturally moist soil, the late rains have done much good, but the garden has been drier than it has ever been before in the twenty-three years since it was begun. Ponds that were never very low before shrunk so much that the loam began to sicken, and we had to protect the Marliac Water Lilies (Wilson, 1902a).



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Figs 13, 14. 'Mr Wilson's raft for aquatic plants', from the *Gardeners' Chronicle*, July 22, 1876. Below. 'The Wilson Raft for Water Plants', from *The Garden*, 1877.

But today it is Wilson's water garden that is the most recognisable feature of his garden still surviving.

The wild garden

As early as 1883, Canon Ellacombe described Oakwood as "Mr. Wilson's wild garden": but what exactly did he mean by this phrase? William Robinson's book *The Wild Garden* had been published in 1870, but Robinson's own definition of the term was not universally accepted. In the fourth edition (1894), he felt compelled to clarify his intentions in a preface:

There has been some misunderstanding as to the term 'Wild Garden.' It is applied essentially to the placing of perfectly hardy exotic plants under conditions where they will thrive without further care. It has nothing to do with the old idea of the 'Wilderness.' It does not mean the picturesque garden, for a garden may be highly picturesque, and yet in every part the result of ceaseless care.

What it does mean is best explained by the winter Aconite flowering under a grove of naked trees in February; by the Snowflake, tall and numerous in meadows by the Thames side; by the blue Lupine dyeing an islet with its purple in a Scotch river; and by the blue Apennine Anemone staining an English wood before the coming of our blue bells. Multiply these instances a thousandfold, given by many types of plants, from countries colder than ours, and one may get a just idea of the 'Wild Garden' (Robinson, 1894: xiv–xv).

Robinson's wild garden, from one point of view, could be considered as a labour-saving garden: put the plants in and let them get on with it. Robinson's early works tended to make cost-effectiveness for the suburban householder one of the criteria of effectiveness for the garden. But the main point is that Robinson's wild garden was conceived as an exercise in naturalisation, and not as a visual style. It did not have to look "wild". Robinson and his coevals waxed enthusiastic about what we would now call "invasive plants", and shun if not actively prohibit: giant hogweed and Japanese knotweed are two of the subjects about which they were enthusiastic.

Note that Robinson's recommendation avoids any notion of an overall plan, and concentrates on the details of individual plant groups as his aesthetic



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Fig. 15. Water scene in Wisley Garden, halftone print after a photograph by F. Mason Good, from *Gardeners' Magazine*, 12 December 1903, p. 827.

ideals. The early literature on the wild garden followed Robinson in this. The coverage of Wilson's garden at Heatherbank followed this trend: the three illustrations that were published (see p.7 above) all showed details of flowering plants with no views of a wider scope. And the attention of visitors to Wisley was always being drawn to particular details of planting, at the expense of more general views: "It is troublesome to fix upon any one point at Wisley. In every nook some plant is hiding" (Anon., 1897: 319).

This approach gradually changed. Some of Robinson's examples were on a grander scale than others: at Cliveden, in the early 1860s, John Ingram landscaped a valley with thousands of anemones and other spring flowers, in what Robinson thought as "one of the finest things that has been done in the way of landscape gardening near London for many years past" (Robinson, 1872: 235). By 1879, Robinson was urging that "To do it rightly, we must group and mass as Nature does. Though we may enjoy a single flower or tuft here and there, the true way is natural fringes and masses of plants, one or two species prevailing in a given spot" (Robinson, 1879: 485). William Paul had already been recommending the arrangement of trees and shrubs in the wider landscape by colour, and a fashionable garden of the 1880s such as Waddesdon Manor had its roadsides flanked by triangular blocks of different species (Anon., 1885: 821). Wilson could certainly create large-scale colour effects at Wisley: he "counted eight shades of pink [hepaticas] and as many of blue; these, with two sorts of white, give an effect which could hardly be beaten in Switzerland" (Wilson, 1887).

Where the plantsmen of the mid-century thought in terms of lines and patterns – "Who could sleep half the time without a long row of *Eschscholtzia* after once seeing it that way?", wrote Donald Beaton (Beaton, 1857: 114) – those of the 1880s thought in terms of drifts and broad expanses. So Gertrude Jekyll, choosing her fondest memories of Wisley, singled out a plantation of *Primula denticulata*, "both grouped and thinly sprinkled, just as nature plants – possibly they grew directly there from seed" (Jekyll, 1899: 184). (Even at Heatherbank, Wilson had allowed his primroses "to seed at will all over the place" (Douglas, 1880), and portions of that garden also qualified as wild garden.) But Wilson's practice may not have been uniform; the following late account suggests that Wisley may have included areas of planting in lines: "Long lines of



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Fig. 16. View in Wisley Garden, halftone print after a photograph by F. Mason Good, from *Gardeners' Magazine*, 12 December 1903, p. 826.



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Fig. 17. Carte-de-visite photograph of Wilson by Richard Allen & Son of Nottingham, dated 1873.

Gentianella bordering a cultivated strip of Apple trees lead to a region of many-acred cool meadow generously planted with Michaelmas Daisies and many other good things, all holding their own will among the strong meadow grasses” (Anon., 1900a).

Wisley was not only a wild garden; it was also a “garden in a wood”, as an anonymous contributor to *Gardening World* emphasised (Anon., 1886). Woodland gardening was something different from the Robinsonian wild garden, however much the distinction might be elided in ordinary parlance. The ornamentation of woodlands with exotic plants, especially plants other than trees, began to develop in the second quarter of the nineteenth century, particularly after the discovery that *Rhododendron ponticum* could grow in ordinary soil and did not need the creation of a special peaty environment for it. The naturalising of bulbs in lawns, already apparently an established custom in Scotland, was being experimented with in various English gardens in the 1850s, and in the early 1860s the newly established bulb firm of Barr & Sugden was offering “Paxtonian packets” of mixed annual seeds for sowing along woodland paths for a richly floriferous effect. With activities such as these flourishing, Robinson had no chance of dictating the meaning of the phrase “wild garden” (Elliott, 1986: 93–4, 194–6).

Lewis Castle remarked on Wilson’s tendency to allow plants to spread of their own accord, with the minimum of directive interference once initial planting had been carried out. “Digging in banks and mounds occupied with valued plants is tabooed, and the result is that seedlings are springing up in all directions, and one is almost afraid to step lest some precious gem that is being daily watched may be crushed” (Castle, 1888a). One writer described the principle as “the let-alone system” (J.D., 1889). In 1895 John Cornhill, revisiting Wisley, remarked on changes and the intensification of wild gardening there:

the aspect of Oakwood has been changed during the last few years – so much so, indeed, as to be scarcely recognisable to anyone who has not seen it for some time. Ten years ago the greater portion was a wild garden pure and simple, but this has been changed, though in such a manner that whilst the needs of each plant are well provided for, the natural features of the place are rather heightened than destroyed. It now consists of, so to say, a series of gardens differing from each

other both as regards general appearance and the character of their occupants. Therein the spade, fork and hoe are almost unknown, the cultural system apparently consisting in creating suitable conditions, placing the plants there, and allowing them to grow as they would in their native haunts, the attention given consisting merely in pulling out weeds and keeping rampant growing things within due bounds (Cornhill, 1895: 358).

So the Robinsonian meaning of “wild garden”, with its emphasis on naturalisation and low maintenance, was still much in force.

But the other meaning of “wild garden”, the garden that looked wild, was equally as applicable to Wisley, and noted in the press: “it was not a garden to plan by rule and compass” (Castle, 1888a); “Nothing harsh and formal spoils the garden”, wrote *Country Life* (Anon., 1897: 320). This did not mean, however, that there was a total absence of artificial-looking features, that might sit oddly in a garden deemed to look “natural”: the artificial mountain, the hedges, the rootery, and the hurdles in the trial grounds. From some points of view, Wisley was aesthetically deficient in its concentration on experimental horticulture. Gertrude Jekyll reminisced about an encounter with Wilson in which she remonstrated with him over his inattention to the wider spectacle:

I remember being struck with this on several occasions when I have had the happiness of visiting Mr. G. F. Wilson’s garden at Wisley, a garden which I take to be about the most instructive it is possible to see. In one part, where the foot of the hill joined the copse, there were hosts of lovely things planted on a succession of rather narrow banks. Almost unthinkingly I expressed the regret I felt that so much individual beauty should be there without an attempt to arrange it for good effect. Mr. Wilson stopped, and looking at me straight with a kindly smile, said very quietly, “That is your business, not mine.” (Jekyll, 1899: 184).

And with that I will end this examination of the significance of Wisley during the lifetime of George Fergusson Wilson. He was modest about his

own accomplishments, and in the early days of Wisley, when all was still anticipation, he said:

the only credit I can properly claim is that, from being an old inventor and experimentalist, I could see and use our advantages of soils and situations. ... In horticulture, as in other branches of science, of course the great thing is to accumulate facts, but one often comes on most unexpected results (Wilson, 1883b).

Over the next twenty years, Wilson's garden developed a unique reputation as an experimental garden, in which the best possibilities were sought for the treatment of plants in a British environment. That was its standing at the time that Sir Thomas Hanbury presented it to the Royal Horticultural Society as an experimental garden.

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