

Occasional Papers from
The RHS Lindley Library



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Cover illustration:

× *Brassocattleya* John Linford gx

Award of Merit, 1930 (Black & Flory)

Drawing by Nellie Roberts, 1930

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The Royal Horticultural Society and its orchids: a social history

BRENT ELLIOTT

Lindley Library, Royal Horticultural Society, London

On 10 November 1896, the RHS Orchid Committee petitioned Council (the Society's governing body) for permission to hire an artist to paint award-winning orchids, and approval was given at the meeting on 15 December. A 24-year-old artist named Nellie Roberts¹ was hired for the post, and began work as from the meeting of 12 January 1897. Thereafter every orchid that was given an award by the Society's Orchid Committee, whether species, cultivar, or hybrid, had its portrait painted, so that future generations of judges would have a record of what had been considered award-worthy in the past, as a basis for deciding whether orchids put forward for awards represented a true advance on their predecessors.

The Manchester and North of England Orchid Society was founded the following spring, and immediately instituted a similar procedure for painting orchids to which it gave awards (for over three decades both societies were giving First Class Certificates and Awards of Merit² to orchids, a duplication which has naturally led to intermittent confusion over the status of particular awards). Instead of directly employing an orchid artist, however, the North of England Orchid Society specified that the exhibitor had to bear the costs of the painting ("Argus", 1897: 166). This may be one reason why their collection of orchid paintings, which was built up over a period of a

¹ Or Nelly Roberts, the version recorded on her birth and death certificates (Oder, 2009: 35); but since she was commemorated in the name of *Odontoglossum Opheron* gx 'Nellie Roberts', it seems appropriate for this article to use the spelling familiar to the Orchid Committee.

² The awards of First Class and Second Class Certificates were instituted for the RHS Fruit Committee in 1858, and extended the following year for the Floral Committee. In 1887 the Second Class Certificate was renamed the Award of Merit, to avoid the derogatory implications of the phrase "second class".

quarter-century, now numbers some 700 portraits, as opposed to the 7,000 in the RHS collection (Barnes, 2008). Among the artists who painted orchids for the North of England Orchid Society were Frederick Bolas, Elizabeth Shaw, and Minnie Walters Anson, whose work will also be found in the art collections of the RHS Library; Nellie Roberts also sometimes made portraits for the rival society.

The minutes of Council give no indication of how Nellie Roberts had been selected, but it is possible to guess. She had been painting orchids for Sir Trevor Lawrence, the Society's President and first Chairman of the Orchid Committee, for some years, so it was probably on his recommendation that the Committee recruited her. Lawrence had previously employed two artists of great importance for the portrayal of orchids: John Nugent Fitch and J. L. Macfarlane. Fitch was famous as the lithographer for *Curtis's Botanical Magazine*, and illustrated Warner and Williams' *Orchid Album* (1882–1889). He contributed an illustration of a hybrid orchid to Reichenbach's *Xenia Orchidacea* in which the habit of the plant was omitted, and only the details of the flower shown: the first orchid cultivar portrait which was not modelled on standard botanical illustration. Similarly reductive drawings of orchids in Sir Trevor Lawrence's collection now survive in the RHS Library art collections. Fitch was followed in Lawrence's employment by John Livingston Macfarlane, who had emerged as an artist and lithographer in the 1870s, contributing illustrations to Moore and Jackman's *Clematis as a Garden Flower* (1872), Thompson's *Gardener's Assistant* (1878), and Paul's *Rose Garden* (1881), as well as a few orchid portraits for Sander's *Reichenbachia* (1888–1890). Macfarlane standardised the model provided by Fitch: a life-sized portrait of the flower only, seen straight on, the background frequently tinted in an aureole around the flower in order to set off any pale details. Nellie Roberts followed Macfarlane's example, even copying his style of lettering.

Once she had been hired by the RHS, there was an effort to make the depiction of cultivars retrospective, and during her early years

with the Society she painted portraits of 26 orchids that had been awarded before her term of office started, going back as far as 1866 (*Cattleya warneri*); but many of the earlier hybrids had already disappeared from cultivation.

She also frequently painted duplicate portraits, so that the owner or exhibitor could keep one, a tradition continued by her successors; every so often these duplicate portraits come on the market, prompting queries as to whether they have been stolen from the RHS Library. Many orchid growers built up extensive collections of cultivar portraits; one was exhibited at a London flower show in 1997 by its then owner Sylvia Purt, and subsequently purchased by the Library. There are no doubt important collections still surviving in private hands, although others have been scattered or lost, most famously the collection built up by Sir Jeremiah Colman, destroyed in the Gatton Park fire of 1934 (Anon., 1934a: 66).

Nellie Roberts served as the orchid artist for nearly 60 years, from 1897 to 1953. When she retired, she was awarded the Veitch Memorial Medal. Her lifetime's work for the Society, however, was not rewarded with a prosperous old age, for when she died in 1959 she was buried in a public grave in Streatham Cemetery, with no monument (Oder, 2009: 38). Since 1953 there have been eight successors to her role:

1954–1966 **Jeanne Holgate**, a teacher at the Royal College of Art. She received four Gold Medals, and was presented with a silver trophy by the 5th World Orchid Conference in 1966. In 1967 she moved to America, where she taught flower painting at Longwood Gardens and continued her career as a botanical artist to great acclaim, returning to England in the late 1970s.

1967–1980 **M. Iris Humphreys**, who had begun her career in the 1930s painting portraits of the hybrids raised by Charlesworth and Co. In 1936 her husband, J. L. Humphreys, moved to the firm of Armstrong and Brown, subsequently becoming Director; when he

retired in 1980, she retired from the RHS as well (Rittershausen, 1981). In 1977 she received the Westonbirt Orchid Medal (which her husband had received five years before). In addition to her work for the RHS, she also made many illustrations for the *Orchid Review*, and the 1982 volume of that magazine was dedicated to her.

1980–1981 **Jill Coombs**, who won three Gold Medals from the RHS.

1981–1986 **Gillian Young**, the daughter of Ron and Edna Ratcliffe of Ratcliffe Orchids. She trained at the Oxford School of Art, and published *Orchids in line* in 1975.

1987 **David Leigh**, who had contributed a series of ‘Orchid portraits’ to the *Orchid Review* in 1985, in which year he was awarded a Silver-Gilt Grenfell Medal. He has worked as an orchid breeder for the firm of Keith Andrews, and as Show Secretary for the British Orchid Growers’ Association. In 1990 he published *Orchids: their care and cultivation*.

1987–2004 **Cherry-Anne Lavrih**, who had studied at the Kingston School of Art, and Brighton College of Art, winning the David Murray Landscape Painting Award from the Royal Academy in 1966. For a time she was head of the art department at Whyteleafe Grammar School for Girls. During the 1980s she made illustrations for the *Kew Magazine* and *The Plantsman*. The longest-serving orchid artist apart from Nellie Roberts (Anon., 1990).

1997–2005 **Gillian Barlow**, who had trained at the Slade, and received a Silver-Gilt Medal at her first RHS exhibition in 1991 (and Gold thereafter). She was appointed Deputy Orchid Artist in 1997, to substitute for Cherry-Ann Lavrih when occasion required.

2006– **Deborah Lambkin**, who trained at the National College of Art and Design in Dublin, and has worked for *Curtis’s Botanical Magazine* and other publications.

The orchid award portraits now number around 7,000, and form the largest single group among the RHS Lindley Library's art collections. This article is intended to provide some background to the creation and development of the collection, and to use it to throw some light on the history of orchid growing in Britain.

Necessary preliminaries

Long before there were specialist societies devoted to orchids, the Horticultural Society was associated, for good and ill, with the introduction and promotion of orchids in Britain. Among the collectors whom the Society sent overseas from the 1820s to the 1850s, George Don, John Forbes, James Macrae, and Carl Theodor Hartweg, and the Society's last collector, John Weir, in the 1860s, all sent back orchid species of importance from Africa and the Americas.

The garden at Chiswick became famous for its orchid collection, which was eventually to be sold in 1856 at a time of financial crisis. An immense specimen of *Laelia superbiens*, sent from Mexico by Hartweg, became for a long time the showpiece plant of the Chiswick conservatory. The first Lindley Medals were awarded for orchids (to James Veitch and William Bull); in 1911 Gurney Wilson could write an article about the Society's medals, referring to them simply as the "orchid medals" (Wilson, 1911). In 1852 alone £189 was given in awards to orchids, more than to any other class of plants except general stove plants (despite the major orchid exhibitors grumbling about the medals being reduced in value). On the other hand, the attention lavished on orchids at mid-century was censured by those who thought the Society had more important things, such as fruit, that it should be attending to, "instead of idly waiting till somebody sends them 'one or two new things' ... [and behaving] as if there were no plants worth cultivating but Orchids, and as if there were no world outside the walls of Chiswick Gardens" ([Johnson], 1854: 152). So the Society and its cultivation of orchids were a continual focus of public attention, one way or

another, and some important developments in orchid culture were either pioneered or publicised by the Society.

At the beginning of the nineteenth century it was commonly assumed that many orchids were parasitic upon trees, and as late as 1822 William Herbert was still giving instructions for training “parasitic” orchids in glasshouses (Herbert, 1822). A decade later, John Lindley was explaining that such orchids were epiphytic rather than parasitic (Lindley, 1831; Gordon, 1849). The Society’s founder, Sir Joseph Banks, had effectively invented the hanging basket as a means of growing orchids, as described in the *Botanical Register*: “The most successful mode of treating plants of this nature in these climates, has been devised by Sir Joseph Banks... The method he pursues, is, to place the plants separately in light cylindrical wicker baskets or cages of suitable widths, of which the frame-work is of long slender twigs wattled together at the bottom and shallowly round the side, the upper portion being left open that the plant may extend its growth in any direction through the intervals, and yet be kept steady in its station, the ends of the twigs having been tied together by the twine that suspends the whole to the woodwork of the stove...” (Ker Gawler, 1817). Paxton later gave instructions on making orchid baskets for orchids so that “they can readily be slung from the roof of the house” (Paxton, 1839a), and also tackled the aesthetics of this new greenhouse feature by recommending Loddiges’ practice of growing epiphytes on portions of logs covered with selaginella (Paxton, 1839b).

John Lindley’s involvement with *Orchidaceae* began with his work for William Cattley, after whom he named the genus *Cattleya*. He was the first botanist to work out a classification of orchids, and wrote prolifically on the subject, his most notable works being the *Sertum Orchidaceum* (1838) and *The Genera and Species of Orchidaceous Plants* (1830–40). He has been called the father of modern orchidology, and the American Orchid Society has named its scientific journal *Lindleyana* in his honour. Among the orchid genera named by Lindley were

Table 1. **Orchid genera named by John Lindley**

<i>Acacallis</i>	<i>Dilochia</i>	<i>Oeceoclades</i>
<i>Acampe</i>	<i>Dimorphorchis</i> *	<i>Oeonia</i>
<i>Acineta</i>	<i>Diothonea</i>	<i>Ornithochilus</i> *
<i>Aeranthus</i>	<i>Doritis</i>	<i>Otochilus</i>
<i>Aganisia</i>	<i>Earina</i>	<i>Panisea</i>
<i>Ansellia</i>	<i>Eria</i>	<i>Paphinia</i>
<i>Aspasia</i>	<i>Eriopsis</i>	<i>Pholidota</i>
<i>Batemannia</i>	<i>Erycina</i>	<i>Phreatia</i>
<i>Bifrenaria</i>	<i>Galeandra</i>	<i>Phymatidium</i>
<i>Brachycorythis</i>	<i>Govenia</i> (ex Lodd.)	<i>Physosiphon</i>
<i>Bromheadia</i>	<i>Grobya</i>	<i>Ponera</i>
<i>Camarotis</i>	<i>Helcia</i>	<i>Prescottia</i>
<i>Cattleya</i>	<i>Hexisea</i>	<i>Promenaea</i>
<i>Cattleyopsis</i>	<i>Huntleya</i>	<i>Schomburgkia</i>
<i>Chiloschista</i>	<i>Ipsea</i>	<i>Scuticaria</i>
<i>Chloraea</i>	<i>Lacaena</i>	<i>Solenidium</i>
<i>Chondrorhyncha</i>	<i>Laelia</i>	<i>Sophronitis</i>
<i>Chysis</i>	<i>Laeliopsis</i>	<i>Stenia</i>
<i>Cirrhaea</i>	<i>Lanium</i>	<i>Stenoglottis</i>
<i>Clowesia</i>	<i>Lycaste</i>	<i>Tetramicra</i>
<i>Clowesia</i>	<i>Macodes</i>	<i>Trias</i>
<i>Cochlioda</i>	<i>Microcoelia</i>	<i>Trichopilia</i>
<i>Coelia</i>	<i>Miltonia</i>	<i>Trigonidium</i>
<i>Coelogyne</i>	<i>Mormodes</i>	<i>Warrea</i>
<i>Cremastra</i>	<i>Mystacidium</i>	<i>Xylobium</i>
<i>Cryptopus</i>	<i>Notylia</i>	<i>Zeuxine</i>
<i>Cycnoches</i>	<i>Oberonia</i>	<i>Zygostates</i>

* originally a subgeneric section, raised to generic rank by others

Cattleya, *Coelogyne*, *Cycnoches*, *Laelia*, *Lycaste*, *Miltonia*, *Scuticaria*, and *Sophranitis*.

Lindley's first writings on orchids appeared in the years 1824–1825: a group of descriptions in his *Collectanea Botanica* (an account of the exotic plants grown by his patron William Cattley of Barnet), some articles in Hooker's *Exotic Flora*, and some descriptions in the *Botanical Register*, of which he would soon become Editor. Altogether, in these two years he coined the names of ten genera still considered valid today: *Aeranthus*, *Cattleya* (how unfortunate that in French it has become a vernacular name as "catleya", suppressing the link with William Cattley), *Cirrhaea*, *Coelogyne*, *Cryptopus*, *Eria*, *Notylia*, *Pholidota*, *Prescottia*, and *Xylobium*.

Sir Joseph Hooker once famously described England as "the grave of tropical orchids", because English gardeners tended to put them in their hottest glasshouses and keep up a high level of steam (Cooper, 1947). Sir Harry Veitch (Veitch, 1886: 120) blamed Lindley for this tendency, somewhat unfairly, because the recommendation of high steam was begun by Loddiges' nursery, and Lindley also recommended a resting period, so that high steam was not maintained consistently through the year. Lindley also came in for some blame from later growers for his recommendations on potting (Yearsley, 1977). While most of Lindley's writings on orchids during the 1830s and 1840s were taxonomic – he was the first botanist to devise a workable classification of orchids, and in his *Genera and Species of Orchidaceous Plants* he provided generic descriptions for the entire family – he took one of the first steps toward widening the general public knowledge of orchids by his article on the family in the *Penny Cyclopaedia*. Not the least of his achievements was the creation of the word "orchid" as a replacement for the more Latinate *orchis*.

The first book-length manual of growing orchids was J. C. Lyons' *Remarks on the Management of Orchidaceous Plants* (1843), a book of nearly 100 pages which was issued in a second edition two years

Table 2. Major publications by John Lindley on orchids

Year	Publication
1826	<i>Orchidearum Sceletos</i>
1830–1838	<i>Illustrations of Orchidaceous Plants</i> by Francis Bauer
1830–1840	<i>The Genera and Species of Orchidaceous Plants</i>
1837–1841	<i>Sertum Orchidacearum: a Wreath of the most Beautiful Orchidaceous Flowers</i>
1840	Orchidaceae. <i>The Penny Cyclopaedia</i> , vol. 16, pp. 476–479
1846	<i>Orchidaceae Lindenianae; or, Notes upon a Collection of Orchids formed in Colombia and Cuba, by Mr. J. Linden</i>
1846	Orchidaceae. In <i>The Vegetable Kingdom</i> , pp. 173–183 [with further editions in 1847 and 1853]
1852–1859	<i>Folia Orchidacea. An Enumeration of the Known Species of Orchids</i>
1857	A Note on <i>Spiranthes gemmipara</i> ; and Contributions to the Orchidology of India. <i>Journal of the Linnean Society</i> , vol. 1 pp. 168–190

later. Lyons' work has been rediscovered more than once as an object of historical interest (Wilson, 1943; Nelson, 1983), but it was a provincial Irish publication which attracted little publicity, so the degree of its influence on British orchid-growing is uncertain. More influential, because of its prestige, was *Paxton's Magazine of Botany*, whose sixth volume (1839) in particular contained much instruction on orchid culture. But the Society continued to publish material of importance, most notably the description, in the first volume of its new *Journal*, of John Dillwyn Llewellyn's remarkable orchid-house at Penllergaer, the first important example of interior landscaping in a British greenhouse, with its attempt to replicate the conditions described by Schomburgk in his account of plant collecting in Guyana (Llewellyn, 1846).

The RHS Orchid Committee

In 1885, the Society staged an Orchid Conference, and the programme was made the responsibility of a Committee, appointed on 10 March, consisting of R. H. Beddome, former head of the Indian Forestry Department; the Rev. J. T. Boscawen of Lamorran; Sir Michael Foster, Professor of Physiology at Cambridge; Sir Trevor Lawrence, whose orchid collection at Burford House was already famous; John Lee, the Hammersmith nurseryman; Major T. Mason, orchid grower at The Firs, Warwick; and Sir W. T. Thiselton-Dyer of Kew. The Conference was held on 12–13 May 1885, and its proceedings published as Volume 7 of the *Journal*. On 23 March 1886, Foster moved that the Scientific and Orchid Committees – by which latter title he must have meant the Conference Committee – liaise with the Committee for the forthcoming Provincial Show in Liverpool, with the aim of holding a conference on orchid nomenclature during the Show. By this time Alfred Smee, author of *My Garden*, was on the Committee, and Professor Reichenbach was invited to attend from the Continent. Thereafter this original “Orchid Committee” seems to have lapsed.

On 12 March 1889, James Douglas suggested “the formation of an Orchid Committee to be drawn from the Fruit & Floral Committees”. A sub-committee, consisting of the President, T. B. Haywood, and Douglas, drew up a list of names, and on 26 March its existence was formalised. The new Committee was given “power to recommend certificates &c in the same way as the other Committees”. The list of names was not quoted in Council minutes, but at the first meeting, held on 9 April, the following were in attendance: Sir Trevor Lawrence in the Chair, with Lewis Castle, author of *Orchids*; John Dominy, the Veitch foreman who had produced the first orchid hybrid; Maxwell T. Masters, editor of the *Gardeners’ Chronicle*; H. M. Pollett, the horticultural printer and amateur orchid grower; Frederick Sander, the orchid collector and nurseryman at St Albans; and three head gardeners, Edwin Hill of Tring Park, James O’Brien of Westonbirt

Table 3. Chairmen of the RHS Orchid Committee

1887	Sir Trevor Lawrence, President of the RHS
1890–1905	[Sir] Harry Veitch, nurseryman at Chelsea
1905–1916	J. Gurney Fowler, accountant and orchid grower
1917–1941	Sir Jeremiah Colman of Gatton Park, author of <i>Hybridisation of Orchids</i>
1942–1952	A. Gurney Wilson, editor of <i>Orchid World</i>
1953–1958	C.H. Curtis, editor of <i>Orchid Review</i>
1959–1963	Lord Digby, of Minterne Manor
1964–1972	John Gilmour, superintendent of Cambridge Botanic Garden
1973–1985	Maurice Mason, of Talbot Manor, Norfolk
1986–1997	Alasdair Morrison, chairman of the British Orchid Council and the World Orchid Conference
1997–2006	Henry Oakeley, psychiatrist and authority on <i>Lycaste</i>
2007–	Johan Hermans, orchid grower and authority on the orchids of Madagascar

(who was to act as the Committee's Secretary for many years), and Henry Ballantine of The Dell, Englefield Green.

Members of note have included Sir Isaac Bayley Balfour of the Edinburgh Botanic Garden; R. E. Holttum of the Singapore Botanic Garden; Sir Frederick Moore of Glasnevin; Joyce Stewart, the authority on African orchids and former Director of Horticulture to the RHS; John Blowers, former editor of the *Orchid Review*; the nurserymen Ray Bilton, J. Charlesworth, J. Cypher, Sydney W. Flory, Maurice and Philippe Lecoufle, Stuart Low, A. A. McBean, Alan Moon, Brian Rittershausen, David Sander, and Sir Harry Veitch; Prince Tadashige Shimadzu [*sic*; "Shimazu" by modern standards of transliteration], who served on the Committee from 1921 to 1931, while attached to the Japanese embassy; and a goodly selection of the major amateur orchid growers of the past century: Stephenson R. Clarke of Borde Hill, Sir Jeremiah

Colman of Gatton Park, De Barri Crawshay of Sevenoaks, Frederick J. Hanbury of East Grinstead, Sir George Holford of Westonbirt, H. D. McLaren (later Lord Aberconway) of Bodnant, Maurice Mason, Albert Pam of Wormleybury, Pantia Ralli of Ashted Park, Lionel de Rothschild of Exbury, Baron Schröder of The Dell, Englefield Green, Eric Young of Mont Millais, and the prickly K. D. Morgenstern, who was at one point expelled from the Committee over his offensive behaviour (though he was to leave a large collection of orchids to Wisley). Two great gardens have been represented on the Committee simultaneously by both the owner and his orchid grower: The Dell, Englefield Green (Baron Schröder and his grower Henry Ballantine), and Westonbirt (Sir George Holford and James O'Brien, and later his successor H. G. Alexander).

The beginnings of orchid breeding

The breeding of the first hybrid orchid was the work of John Dominy (Fig. 1, p. 15) of the Veitch Nurseries in Chelsea; he had been experimenting with orchid hybridisation since 1852, but it was not until October 1856 that he succeeded, and James Veitch was able to show Lindley a *Calanthe* that had resulted from the cross of *C. masuca* and *C. furcata*. The plant was named *Calanthe* × *dominyi* (Fig. 2, p. 16), and it proved to be a robust creature, still flowering busily forty years later (Anon., 1909). In today's orthography, its name is rendered as *Calanthe* Dominyi gx¹. Lindley's response, however, was not one of pleased excitement; Sir Harry Veitch later recalled him saying, "You will drive the botanists mad!" (Veitch, 1886: 29), and over a year

¹ It is worthwhile explaining here about the orthography of hybrid orchids as it developed during the twentieth century. The *Code of Nomenclature for Cultivated Plants* (1953) introduced the concept of a grex, from the Latin for a flock, herd or swarm (abbreviated "gx"; Latin plural *greges*, but grexes is equally acceptable in English). This is a collective term for the progeny of an artificial cross between specified parents at species level, or involving other grexes; while originally intended for broader usage, the term is now used exclusively for orchid crosses. The grex epithet follows the generic name; in modern usage, it can be distinguished from a cultivar name by the absence of inverted commas, and from a specific epithet by its initial capital and non-italic typeface.



Fig. 1. John Dominy (1816–1891). Hybridist for James Veitch and Sons, Chelsea. Carte de visite photograph by H. Barrett of Southampton, 1873 .



Fig. 2. *Calanthe Dominyi* gx. Chromolithograph from Célestin Cogniaux, *Dictionnaire Iconographique des Orchidées* (1903).

passed before he described the plant in the *Gardeners' Chronicle* ([Lindley], 1858).

The probable reason for Lindley's anticipation of madness was that it seemed to confirm a suspicion that had previously been mooted but dismissed: that orchids might hybridise in the wild, and that some things that had been classified as species might not be species after all. The existence of orchids that were apparently intermediate forms between other species was well known. Lindley himself, in 1852, had explicitly called for the recognition of natural hybrids among orchids ([Lindley], 1852), and in 1853 had described *Phalaenopsis intermedia* as probably "a natural mule between *P. amabilis* and *P. rosea* [now considered a hybrid of *P. aphrodite* and *P. equestris*]" (Lindley, 1853: 162–3). (John Seden, another Veitch hybridist, made precisely this cross in 1886 in the first successful attempt to duplicate a natural hybrid in the propagating house.) So we may speculate that Lindley did not feel threatened with madness himself, but was aware of potentially strong feelings on the part of his colleagues.

And strong feelings there were. Dominy produced more *Calanthe* hybrids in the late 1850s and early 1860s, as well as hybrid forms of *Goodyera*, *Cattleya*, *Laelia*, and *Anoectochilus*. After nearly a dozen hybrids had been produced, James Bateman spoke at an RHS meeting about Dominy's latest offering: "Mr. Bateman said that he had hoped that Orchids constituted a Royal race into whose preserves the hybridist would not dare to enter ... In the case before him [*Calanthe* × *veitchii*], however, he was forced to admit, though it nearly choked him to do so, that a magnificent result had been obtained." (Anon., 1865).

Dominy created a total of 25 orchid hybrids by the time of his retirement in 1880, and for the first decade and a half of orchid breeding he was the only breeder to achieve any success. In the early 1870s his first rivals appeared on the scene, as other nurseries and amateur gardeners began to emulate his practice, among them his

successor at the Veitch Nurseries, John Seden, who was the first to breed a hybrid using an already existing hybrid as one of the parents. By 1887 Reichenbach could say that "All Orchidic England is now engaged in the procreation of mules." Meanwhile, the interest had begun to develop in other countries: in 1881 came the first hybrid bred outside England. By the beginning of the twentieth century instruction in hybridising was being published in magazines, and amateur competition in breeding was flourishing. So impressive were the results that William Watson could say, "Is nature's way the wrong way after all? We have ceased to follow her in the treatment of many garden flowers and fruits, with the result that nature is left a long way behind. It is certain that she cannot grow seedling Orchids as they are now grown by the up-to-date breeders" (Watson, 1905: 348). Indeed, some growers regarded themselves as simply speeding up the normal work of evolution (Anon., 1914a); see J. P. Kotsybar's views on orchid evolution for a modern variation on this theme (Kotsybar, 2006).

The commercial distribution of orchids

The breeding of orchid hybrids by nurseries can be written as a straightforward story of progressive development; but there would have been no point, other than curiosity, in hybridising if there had not existed a market for the results. Orchids were already big business before the first hybrid was raised. Loddiges' was the first nursery to issue a catalogue devoted solely to orchids, in 1839; like all nursery catalogues at the time, it was simply a stock list, without descriptions or cultural instructions, but it ran to 25 pages and included over 1,000 species. Another feature lacking was prices: we do not know what Loddiges' buyers paid for their specimens. But the audience would have been limited to people with glasshouses, and in the 1830s, before the abolition of the tax on glass, that meant the nobility, aristocracy, and the wealthier businessmen. (And, of course, botanical gardens, but they will be disregarded in what follows.)



Fig. 3. *Paphiopedilum* Baron Schröder gx 'Veitch's'. Drawing by Nellie Roberts, c.1898–1910. Drawing made though no award given.

No catalogue was published of Sir Joseph Banks' private collection, but his may well have been the first important private collection of exotic orchids in Britain. By the 1830s, we can specify a certain number of other growers of comparable importance: the Duke of Devonshire, who employed Paxton at Chatsworth, and who was able to send the young Edward Milner on an expedition to India to collect orchids and other tropical plants; Louisa Lawrence at Drayton Green, whose son Trevor Lawrence was to create the RHS Orchid Committee; Sigismund Rucker of Wandsworth; William Gordon of Haffield, whose gardener Donald Beaton published his experiences in orchid cultivation in *Paxton's Magazine of Botany*; John Clowes of Broughton Hall, who published a catalogue of his collection in 1842; and James Bateman of Knypersley Hall, Staffordshire, whose independent wealth allowed him to hire collectors like Thomas Colley and George Ure Skinner (Bateman, 1868) to send him orchids from Central America.

For those who could not afford to hire plant hunters, there were two ways of acquiring orchids, other than through personal contact with other growers. One was purchase from nurseries – in the beginning this effectively meant Loddiges. The second was bidding at auction. The firm of J. C. Stevens was conducting natural history auctions by 1834, and during the later nineteenth century frequently held auctions purely of orchids (Yearsley, 2005); its major rival in those years was Protheroe and Morris. High prices were being reached in the auction rooms from an early date. "Good prices were obtained as early as 1830, such as £26 for *Sobralia macrantha*; £10 for *Arpophyllum giganteum*; £15 for *Laelia superbiens*, and £17 for *Barkeria spectabilis*" (Castle, 1889: 51). J. J. Blandy spent £900 in 1846 on buying Barker's collection, and thereafter there was a steady rise in prices. In 1856 the Horticultural Society, in one of the first of its catastrophic sales, auctioned its orchid collection (300 lots) and received £554, with a further portion raising £470 in 1859. The highest price obtained for a single orchid in this sale was £68 5s. 0d., from the Duke of Devonshire for a plant of *Phalaenopsis amabilis*.

The 1850s saw the beginnings of a boom in glasshouse building, as the tax on glass and duties on brick and wood had been abolished, thus making it possible for the middle classes to build greenhouses more cheaply – though building was only part of the story, for there were still the annual heating bills to consider. But the 1850s also saw a swing away from the high tropical emphasis in the planting of glasshouses that had characterised the previous couple of decades, the age of Chatsworth and Kew. The great, highly publicised glasshouses of the 1850s were the Crystal Palace, Enville Hall, and at the end of the decade, the Temperate House at Kew – all characterised by more temperate planting. The 1860s saw Paxton's "Glasshouses for the Million" project, the marketing of a prefabricated structure for greenhouses, with the aim of spreading the capacity for exotic gardening throughout the middle classes. Fortunately for the aspiring greenhouse owner, the 1860s and 1870s also saw the growing popularity of cool-house treatment for orchids, a movement inaugurated by James Bateman in an RHS lecture in 1863 (Bateman, 1863); the number of comparatively temperate *Epidendrum* and *Odontoglossum* species arriving in Britain steadily increased, and F. W. Burbidge produced a practical manual on *Cool Orchids, and how to Grow them* (1874).

And the number of nurseries that could supply orchids was increasing. Loddiges' closed in the early 1850s, but in 1853 James Veitch arrived in Chelsea, and other nurseries devoted to exotic plants for the greenhouse arose in competition, most notably William Bull, also in Chelsea, Benjamin S. Williams in Holloway, James Cypher in Cheltenham, and the firms of Hugh and Stuart Low. These firms dealt in a wide range of tender plants, the 1860s and 1870s being the great age of foliage plants, but orchids were an important part of their enterprise. The last quarter of the century saw the rise of firms that specialised solely in orchids: most notably J. W. Moore in Leeds, Charlesworth in Heaton Bradford, and Frederick Sander in St Albans, who owed his start to the patronage of Baron Ferdinand de Rothschild (Swinson, 1970).

In 1852 B. S. Williams published the first edition of his *Orchid-Grower's Manual*, which over the course of seven editions grew from 108 to 796 pages, and remained the best practical manual until changes in greenhouse heating and technology relegated it to the library shelves. His great rival, James Veitch & Sons, published *A Manual of Orchidaceous Plants*, with a text by Adolphus Kent, in ten parts between 1887 and 1894: a more botanically oriented work but full of cultural instruction. Frederick Sander also tried his hand at a major work on orchids, but the result, *Reichenbachia*, while boasting texts by the period's greatest authority on orchids, H. G. Reichenbach (Elliott, 1994) and plates mostly by Henry G. Moon, was a massive folio work that could enter the homes of only the wealthy. The number of gardens being described in the press for the content of their orchid houses solely increased to such an extent that from 1885 into the 1920s the indexes to the *Gardeners' Chronicle* listed the descriptions of orchid collections under a separate subheading. The 1890s saw the beginnings of specialist magazines devoted to orchids: Richard A. Rolfe founded the *Orchid Review* in 1892, followed by Gurney Wilson who started the short-lived *Orchid World* in 1910.

The newest species, and for some decades all new hybrids, continued to be costly. In 1883 Sir Trevor Lawrence set the standard for the highest price paid for a single orchid (235 guineas for an unnamed *Aerides*, later named *Aerides lawrenceae*, from Frederick Sander). By the Edwardian period this figure had long been exceeded. When Norman Cookson offered duplicates from his orchid collection at Oakwood in 1904, 78 lots were sold for a total of £5,000 (Stables, 1937: 315). Around the same time A. A. McBean bid against Baron Schröder for a plant of *Odontoglossum crispum* 'Pittianum': "we were hoping to purchase the plant at round about 700 gns., so imagine the tension when the price soared to 1,000 gns., and the bidding still going strong! My last bid was 1,125 gns., followed by 1,150 gns. in the Baron's interest. The auctioneer

remarked, 'it is against you, McBean,' to which I replied, 'Thank God for it, Sir.'" (McBean, 1937).

F. W. Burbidge summed up the orchid-collecting situation in the 1880s: "In South America it often happens that *Odontoglossums*, although perfectly wild on the trees, yet belong to some proprietor or native collector, who sells them, or the right of collecting them, to those interested. These are collected sometimes by climbing, sometimes by the lasso... In extreme cases, the trees are felled or burnt down, a plan not recommendable, as in that case thousands of young seedlings in all stages are destroyed, since the largest plants only are worth the trouble and expense of carrying away" (Castle, 1889: 102). Note that the qualms expressed over this tree-felling were not of an ecological nature. George Don had felled trees for their epiphytic orchids in Sierra Leone when collecting for the Horticultural Society in the 1820s; Carl Theodor Hartweg, collecting for the Society in Mexico, cut down a tree for a particular *laelia*, in order to beat his rival George Ure Skinner to it (Elliott, 2004: 199, 204). These men were operating on a small scale; Benedict Roezl, a freelance collector, extended the scale to what amounted to deforestation. It would not be until well into the twentieth century that these actions came to be regarded as environmental damage rather than merely commercial rapacity.

In the early hours of 8 February 1913, a pair of suffragettes broke into the orchid house at Kew, breaking glass, tearing plants to pieces, causing about £150 of damage, and leaving a "Votes for women" card. Late in March, Olive Hocken was arrested for this offence and others, including an arson attack on a mansion at Englefield Green. What is particularly interesting is the response that Mrs Pankhurst made, in a speech at the London Pavilion two days after the Kew incident: "There were people who said it was wrong to destroy in a single night choice flowers which had taken years to reach that pitch of perfection, but how many lives were sacrificed in collecting the plants from the swamps where they grew, and what a

useless sacrifice that was as compared with the great benefits which they hoped would come out of the destruction of these Orchids at Kew? Was it not necessary for women to do these things in order to call attention to the horrors that people had to suffer in the production of these beautiful flowers?" (Anon., 1913). It is possible that she had in mind here the fate of the RHS's last collector, John Weir, who spent his last years paralysed as a result of an unknown infection caught while collecting in South America (Elliott, 2004: 206). But what comes across most obviously is a resentment against what seemed a profligate use of wealth.

Orchid registration

The RHS began compiling a list of award-winning orchids as early as 1899. As the genealogy of orchids became ever more complicated, Richard A. Rolfe proposed the compilation of a stud-book, imitating the breeding-line anthologies used in horse-racing, and the RHS agreed to finance it. *The Orchid Stud-book*, by Rolfe and C. C. Hurst, was published in 1909. In the end the Society refused to adopt its nomenclature – it “would only make confusion worse confounded” – but recognised its value as a model, and appointed Rolfe as the Society's Orchid Recorder, though no usable results had appeared by the time Rolfe died in 1921.

Meanwhile, in 1906, the firm of Frederick Sander at St Albans, probably the world's largest orchid nursery at the time, issued its first list of orchid hybrids. It did not attempt to list individual cultivars, only crosses (or grexes, as a later terminology would have it). *Sander's List* became the orchid grower's indispensable guide, culminating in the production of a cumulative edition in 1947. But as Sander's commercial empire shrank and the funds for its continuation dwindled, the firm asked the RHS in 1949 to take on the duties of registration; the Society began by grant-aiding Sander's to cover the production costs, before finally agreeing in 1954 to take over registration altogether. It bought the Register from Sander's in 1960, and since then has issued supplements are ever-narrowing



Fig. 4. *Disa Diorex* gx 'Clio'. Award of Merit, 1898 (James Veitch & Sons).
Drawing by Nellie Roberts, 1898.

intervals, first ten years, then five years, then three years, to cope with the ever-increasing volume of orchid breeding. Today the Orchid Hybrid Register is also available online; it is now run by the RHS International Orchid Registrar and advised by an international group of specialists.

Multigeneric hybrids

It was not long after producing his first hybrid that Dominy turned his attention to hybridisation across generic boundaries. In June 1862 a First Class Certificate was awarded to *Goodyera* × *dominyi*, announced as a cross between *Goodyera discolor* (now *Ludisia discolor*) and *Anoetochilus lowii* (now *Dossinia marmorata*): the interest of the cross was not the flower but the variegated leaves, making it an oddity in the history of nineteenth-century orchid breeding, and it disappeared from cultivation before long. If the ancestry as reported was correct, this would have been the first bigeneric orchid hybrid; note that no attempt was made to give it a name reflecting the two genera, but that it was firmly incorporated within the genus of the seed parent. Dominy made another cross between the same genera the following year, and various crosses between *Cattleya* and *Laelia* species, and between *Phaius* and *Calanthe*, during the same decade.

In 1883 Gremli proposed the novel name *Aceras-Herminium* (renamed *Aceraherminium* in 1929) for a naturally occurring orchid hybrid. In 1887 Seden raised a cross between a *Zygopetalum* and a *Colax*, and named the result *Zygo-colax*. A little flurry of other joint names was proposed that year, including *Phaiocalanthe* for what was by then a long-established cross, and the practice of amalgamating the names of both parents, rather than assimilating the hybrid to one genus only, was established. The first trigeneric hybrid, the result of breeding a species with an existing bigeneric hybrid, was achieved in 1892, when ×*Laeliocattleya* Schilleriana gx was crossed with *Sophronitis grandiflora* at the Veitch Nurseries; names for the cross proposed over the next few years included *Catlaenitis*, *Sophrocatlaelia* and *Sophrrolaeliocattleya*, this last eventually being preferred. In 1897

Table 4. Bi- and multi-generic orchid hybrids which received RHS awards in the 20th century

<i>Laeliocattleya</i> ¹	1887	<i>Aeridovanda</i>	1918	<i>Vascostylis</i>	1964 (3)
<i>Phaiocalanthe</i> ¹	1887	<i>Charlesworthara</i>	1919 (3)	<i>Asconopsis</i>	1968
<i>Sophrocattleya</i>	1887	<i>Rolfeara</i>	1919 (3)	<i>Degarmoara</i>	1968 (3)
<i>Zygocolax</i>	1887	<i>Potinara</i>	1922 (4)	<i>Kagawara</i>	1968 (3)
<i>Brassocattleya</i>	1889	<i>Burrageara</i>	1927 (4)	<i>Christieara</i>	1969 (3)
<i>Epicattleya</i>	1889	<i>Renanthopsis</i>	1931	<i>Mokara</i>	1969 (3)
<i>Epilaelia</i>	1894	<i>Doritaenopsis</i>	1935	<i>Beallara</i>	1970 (4)
<i>Sophrolaelia</i>	1894	<i>Renantanda</i>	1935	<i>Beardara</i>	1970 (3)
<i>Sophrolaelio-cattleya</i> ²	1897 (3)	<i>Vandaenopsis</i>	1935	<i>Devereuxara</i>	1970 (3)
<i>Brassolaelia</i>	1902	<i>Colmanara</i>	1936 (3)	<i>Sarconopsis</i>	1971
<i>Phaiocymbidium</i>	1902	<i>Miltonidium</i>	1936	<i>Sartylis</i>	1973
<i>Odontioda</i>	1904	<i>Sanderara</i>	1937 (3)	<i>Downsara</i>	1975 (4)
<i>Odontonia</i>	1905	<i>Ascocenda</i>	1949	<i>Odontorettia</i>	1975
<i>Schombocattleya</i>	1905	<i>Renanopsis</i>	1949	<i>Bakerara</i>	1976 (4)
<i>Angulocaste</i>	1906	<i>Vandachnis</i>	1949	<i>Zygonisia</i>	1976
<i>Brassolaelio-cattleya</i> ³	1906 (3)	<i>Holttumara</i>	1958 (3)	<i>Dracuvallia</i>	1978
<i>Diacattleya</i>	1908	<i>Miltassia</i>	1958	<i>Maclellanara</i>	1978 (3)
<i>Miltonioda</i>	1909	<i>Rhynchovanda</i>	1958	<i>Aspodonia</i>	1980
<i>Oncidioda</i>	1910	<i>Kirchara</i>	1959 (4)	<i>Euryangis</i>	1980
<i>Odontocidium</i>	1911	<i>Iwanagara</i>	1960 (4)	<i>Hamelwellsara</i>	1980 (5)
<i>Vuylstekeara</i>	1911 (3)	<i>Renanstylis</i>	1960	<i>Banfieldara</i>	1982 (3)
<i>Adaglossum</i>	1913	<i>Renanthoglossum</i>	1963	<i>Alexanderara</i>	1983 (4)
<i>Wilsonara</i>	1916 (3)	<i>Aliceara</i>	1964 (3)		

All the hybrid genera shown in this table result from the crossing of two natural genera unless otherwise specified. Where a hybrid genus has more than two ancestors, the number is shown in parentheses. Dates are those of the publication of the name.

¹ Crosses between *Laelia* and *Cattleya*, and between *Phaius* and *Calanthe*, were made in the 1860s but published under the generic name of the seed parent.

² *Sophrolaeliocattleya* was first published as *Catlaenitis*, 1895.

³ *Brassolaeliocattleya* was first published as *Brassocatlaelia*, 1897.

×*Laeliocattleya* was crossed with *Brassavola* to yield ×*Brassocatlaelia*, and the variant names *Laelia-Brasso-Cattleya*, *Brasso-Cattleya-Laelia*, and *Brassolaeliocattleya* followed. As with the previous example, *Brassolaeliocattleya* won out. *Diacatlaelia*, a few years later, was similarly standardised to *Dialaeliocattleya*.

But the confusion over the standard of nomenclature struck a warning note, and the possibility of increasing numbers of complex hybrids led the RHS Orchid Committee to formulate a simple rule for the future. In 1909, the Committee recommended that all future multigeneric hybrids be given arbitrary names, consisting of the name of some famous orchid grower or botanist with the termination *-ara*. The next trigeneric hybrid to be produced (*Cochlioda* × *Miltonia* × *Odontoglossum*, 1911) was accordingly named *Vuylstekeara*, after the Belgian grower Charles Vuylsteke. After some controversy, the principle was accepted worldwide.

The same year that ×*Vuylstekeara* was bred, the first hybrid with four genera in its ancestry appeared, and was named *Adamara* – later renamed *Yamadara*. Over the next half-century several tri- and quadrigeneric hybrids appeared; it was not until 1969 that the first hybrid from five genera was bred (×*Dewolfara*), followed in 1983 by six (×*Brilliandeara*), in 1991 by seven (×*Masonara*), and in 1994 by nine (×*Sallyyeeara*). The fascination of what's difficult will no doubt ensure that the ancestral chains will continue to grow into the foreseeable future. It is to be noted that these extreme combinations are usually created by amateur breeders rather than nurseries, and that they tend not to succeed in the commercial market; as yet no orchid with more than five genera in its ancestry has received an award from the RHS.

Multigeneric grexes have a taxonomic fragility that will cause increasing problems in the future. In the early twentieth century, a number of hybrids were created between *Vanda* and *Euanthe*, and the cross was given the name *Vandanthe*. The genus *Euanthe* is no

longer recognised, having been sunk into *Vanda*; so all orchids bred as *Vandanthe* now belong in *Vanda*. Similarly, hybrids in the trigeneric cross $\times Vandantherides$ (*Vanda* \times *Euanthe* \times *Aerides*) are now incorporated in the bigeneric $\times Aeridovanda$. The current reclassification of *Orchidaceae* on the basis of DNA research, mainly being published in *Genera Orchidacearum*, is having far-reaching consequences for the status of many hybrids. Orchidists are currently coping with the reclassification of a large number of *Laelia* and *Sophronitis* species into *Cattleya*, with comparable consequences for such formerly standard hybrid genera as $\times Brassolaeliocattleya$ and $\times Potinara$. The *Oncidiinae* are next for review. In what follows I shall, for historical reasons, continue to use the older names for hybrid genera.

Into the twentieth century

At the beginning of the twentieth century, orchid breeding was the rich man's hobby, and famous orchid collections flourished at both great estates and suburban villas. Among the most famous raisers of orchids before the First World War, apart from the nurseries, were Sir Trevor Lawrence (Fig. 7, p. 32) at Burford Lodge, Surrey (Wilson, 1910), and Baron Schröder (Fig. 6, p. 32) at The Dell, Englefield Green (Anon., 1893a); both were important figures in the RHS, Lawrence as President and Schröder as a Council member; both men staged displays of orchids at the RHS Temple Flower Shows for several years, initially no doubt because the first Temple Show was a hastily convened event, and they helped to fill gaps, but afterward in a spirit of genial competition. Among other orchid raisers of note whose names and collections featured regularly in the press in the years before the First World War, we can find several whose estates fall into the country house category: Sir Jeremiah Colman of Gatton Park, Surrey, who later published the record of his breeding experiments in a privately issued volume (Colman, 1932; Anon., 1915a); F. DuCane Godman of South Lodge, Horsham; and Pantia Ralli, of Ashted Park, Surrey (Anon., 1915b). But many other prominent collections were found in suburban villas, most notably Joseph Chamberlain's at Highbury, Birmingham, but also those of

J. Gurney Fowler of Glebelands, South Woodford (Wilson, 1911a); H. T. Pitt of Stamford Hill, whose collection Gurney Wilson described as being as famous among orchidists as the Bank of England was among financiers (Wilson, 1912: 82); Samuel Gratrix of Manchester (Wilson, 1911b); Sir Frederick Wigan of East Sheen (Anon., 1893b); De Barri Crawshay of Sevenoaks (Wilson, 1911c); Norman Cookson of Wylam, Northumberland (Anon., 1907); Richard Isaac Measures of Cambridge Lodge, Camberwell (Measures, 1894), and Robert Henry Measures of The Woodlands, Streatham (Measures, 1899), both of whom published lists of their orchids in limited editions. The postwar years would add such breeders as Stephenson Clarke of Borde Hill, who acquired F. D. Godman's collection; Robert Strauss of Stonehurst (Blowers, 1966); and Sir William Cooke of Wyld Court, Newbury (Anon., 1929).

The larger estates would have a professional orchid grower as the head of that department of the garden, and some of these men developed considerable reputations. James O'Brien became famous as the orchid grower at Westonbirt, before going freelance; Joseph Chamberlain's orchid grower H. A. Burberry wrote a practical manual that went into three editions; Baron Schröder's orchid grower J. E. Shill was one of the first gardeners to be made Associate of Honour; and above all H. G. Alexander, O'Brien's successor at Westonbirt, turned the orchid collection into a commercial business after his employer's death.

Orchid nurseries multiplied in the Edwardian period, some newly started, others taking over from established firms. The houses of William Bull and B. S. Williams died not long after their founders. J. W. Moore of Leeds was taken over by Mansell & Hatcher; Flory & Black (later to become Black & Flory) acquired the Veitch orchid collection when Sir Harry Veitch closed the family nursery. McBean's, and Armstrong & Brown (Armstrong having worked for Sander), came to prominence after the turn of the century. Of the longer-established firms, Charlesworth moved from Heaton Bradford, first to Clapham



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Fig. 5. *Phalaenopsis* Mrs James H. Veitch gx. Award of Merit, 1899 (Veitch).
Drawing by Nellie Roberts, 1899.



Fig. 6 (above). **Baron Henry Schröder (1824–1910).** Photographic portrait published in the *Journal of Horticulture*, 28 April 1910.

Fig. 7 (right). **Sir Trevor Lawrence (1831–1913).** Original drawing for cartoon by 'Spy' [Sir Leslie Ward], published in *Vanity Fair*, 26 January 1899.



and then to Haywards Heath in 1908, while Sander's remained the wealthiest and most cosmopolitan, with branches in St Albans, Bruges, and New York before the end of the nineteenth century.

Increasingly, from the 1870s onward, gardening magazines and writers on orchids emphasised that, while one could pay hundreds of pounds for a single orchid, there was a wide range of plants available for a few shillings apiece, and plenty of scope for the ordinary citizen's greenhouse to be decorated with orchids. This sense of a

double market – the common range of species and hybrids propagated in bulk, and the wealthy enthusiast's range of hybrids commanding gigantic prices – continued in a steady state until the First World War, after which there was a gradual decline in the extreme prices. And while the major, encyclopaedic works on orchid growing issued by Williams and Veitch continued to be authoritative, it was increasingly small, sometimes pocket-sized works of practical instruction that spread the secrets of orchid-growing to a comparatively mass audience. Burbidge's little book on cool orchids was followed in 1879 by James Britten's *Orchids for Amateurs*, in its turn adapted by William Watson into *Orchids: their Culture and Management* (two editions, 1890 and 1895). H. A. Burberry, Joseph Chamberlain's orchid grower at Highbury, published an *Amateur Orchid Cultivators' Guide Book*, which went into three editions between 1894 and 1900. The interwar years saw the flurry subside, with a handy manual by Sander's nursery the only British publication of note, but after the Second World War popular guides by Charles H. Curtis, David Sander, P. R. C. Rittershausen, John Blowers, and Peter McKenzie Black (of Black & Flory) carried the cause forward from the 1950s to the 1970s.

Charles H. Curtis, the editor of the *Orchid Review*, is of particular importance in this sequence of popularisers, for he took propaganda for orchids into the new medium of television. On Sunday, 18 December 1937, he had a twelve-minute slot in a broadcast from Alexandra Palace, in which he talked about the basics of orchid cultivation, and emphasised the fact that, while one could pay over £100 for an orchid at auction, there were plenty of affordable orchids costing only a few shillings (Anon., 1938: 4–5)

The age of international competition

The first orchid hybrid to be bred outside England came in 1881, and before long orchid breeding was in vogue on the continent of Europe, and in America. Belgium (where Sander had opened a branch in 1894, at Bruges) was initially the most prolific of European

countries in orchid production, and the country whose orchidists contributed most to British flower shows. The Marquis de Wavrin exhibited orchids at the Temple Flower Show in the Edwardian period, and other Belgian breeders like Jules Hye de Crom and Firmin Lambeau (Anon., 1911) brought their orchids to the RHS shows in London in order to compete for prizes, as did commercial enterprises like those of Charles Vuylsteke at Lochristi, and Theodore Pauwels, who had begun his career collecting orchids for Frederick Sander before setting up in business for himself. After the First World War, the number of Europeans exhibiting orchids at RHS shows declined, with some notable exceptions: Vacherot & Lecoufle in France, Franz Wichmann of Celle, and Artur Elle of Hambühren.

In the United States, the orchid nursery business was kickstarted by Frederick Sander, who opened a branch at Summit, New Jersey, in 1880, only to be bought out by Lager and Hurrell in 1896 (Hey, 1958c). By the turn of the century, home-grown rivals were springing up. In 1902, an American nurseryman summed up the current situation: "times have changed in the last ten years. It is hard to say when we are going to stop. Orchid plants number well up in the millions; flowers are cut and sold in much greater number, at a profit to the grower of tens of thousands of dollars, and still the demand is ever increasing" (Karlstrom, 1902: 266). American developments had little direct impact on Britain, if only because of distance; one American exhibitor, C. G. Roebling, exhibited at RHS shows in the Edwardian period. But the arrival of rapid air transport in the 1940s changed all that. Clint McDade, the proprietor of Rosemount Orchids in Tennessee, bought the Orchidhurst nursery of Armstrong & Brown in 1945, and while he kept it going as a small firm, he transferred the major collection to America, and was quoted as saying that "America is fast dethroning England from its position as king of the Orchid world" (Anon., 1946: 84, 112). McDade and his western rival, Rod McLellan, who in 1953 founded a nursery at "Acres of Flowers" in San Francisco, made fortunes from the use of orchids as cut flowers, a practice that had been slow to develop in



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Fig. 8. *Cypripedium* [*Paphiopedilum*] *San-ac-derae* gx. Award of Merit, 1907 (Norman Cookson). Drawing by Nellie Roberts, 1907.



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Fig. 9. × *Odontioda* Vuylstekeae gx. No award, because shown under wrong name by mistake. 1911 (De Barri Crawshay). Drawing by Nellie Roberts, 1911.

England. McLellan's firm did not exhibit at RHS shows until late in the century, after McLellan's death, but other American breeders, like Arthur Freed, specialising in *Phalaenopsis* in the 1950s, and Fred A. Stewart, specialising in *Cymbidium* in the 1960s and 1970s, received awards from the Society. The use of airlines to ship orchids to England was becoming standard practice by the mid-1950s (Cook, 1954).

But a glance at the successive volumes of Sander's List shows that the major impetus in orchid breeding, by the later years of the twentieth century, was coming not from the United States but from the Pacific Rim of Asia. Orchid growing spread through the British colonies in southern Asia. In India, by the Edwardian period, extensive collections were being fostered by men like Dooly Chand and S. P. Chatterjee (Power, 1914). In Japan, orchid breeding, like golf, became a mark of western sophistication; Prince Shimadzu, as already noted, served on the RHS Orchid Committee while his diplomatic duties kept him in London.

The most intriguing story to emerge from the imperial orchid-growing phase came from Singapore. In 1893 H. N. Ridley of the Singapore Botanic Garden sent an orchid to England, with the story that it had been bred by a Miss Joaquim, "a lady residing in Singapore, well-known for her success as a horticulturist", as a cross between *Vanda hookeriana* and *Vanda teres*, "two plants cultivated in almost every garden in Singapore" (Ridley, 1893). *Vanda* Miss Joaquim gx (Fig. 10, p. 38) proved a success in Britain; it was awarded a First Class Certificate when exhibited by Sir Trevor Lawrence in 1897. The question has of late been fiercely debated whether it was a natural hybrid or a deliberate cross (Hey *et al.*, 2000; Wright, 2000; Wright, 2004). In 1981, *Vanda* Miss Joaquim gx was chosen as the national flower of Singapore (Alphonso, 1981), and it is now the world's most commercially successful orchid.



Fig. 10. *Vanda* Miss Joaquim gx. First Class Certificate, 1897 (Sir Trevor Lawrence). Drawing by Nellie Roberts, 1897.

The close of the twentieth century

One of the great features of the early orchid magazines had been the descriptions, usually illustrated, of private orchid collections. The second half of the twentieth century saw these dwindle. This reflected partly the deaths of the older generations, and also partly the changing economic circumstances. By mid-century the feverish bidding of a McBean and a Schröder was a thing of the past. It was considered remarkable when in 1958 two bulbs of *Cymbidium* Rosanna gx 'Pinkie' were sold by Sanders for 250 guineas; most of that year's auction prices for individual cultivars were in the £5–£12 range (Hey, 1958 a–b). The middle years of the century saw only two private growers emerge who engaged in collection or breeding on the level, and with the attendant publicity, of their predecessors: Maurice Mason of Fincham, Norfolk and Eric Young of Jersey.

Some private collections which had achieved great fame during their owners' lifetimes were transformed into commercial companies by their successors: Robert Strauss's collection became Stonehurst UK, Sir William Cooke's became Wyld Court Orchids, and Eric Young's became the Eric Young Orchid Foundation. Apart from these, the most important new firms in the second half of the century were Keith Andrew's Dorset Orchids, Ratcliffe Orchids in Hampshire, and Burnham Nurseries in Devon, the Rittershausen family firm. Sander's nursery had temporarily closed its Belgian branch during the First and Second World Wars, but both times resumed business at the war's end. The Bruges nursery was finally closed in the 1970s; by that time David Sander had moved the parent firm from St Albans to Selsfield, and continued it on a diminished basis for several years. Armstrong and Brown, Mansell and Hatcher closed; Charlesworth was taken over by McBean's in the 1970s, and McBean's nearly closed in the 1990s but survived. Wyld Court Orchids closed in 1990, to be metamorphosed into Wyld Court Rainforest, and eventually into Karl Hansen's Living Rainforest, with ecological goals taking over from orchidaceous.

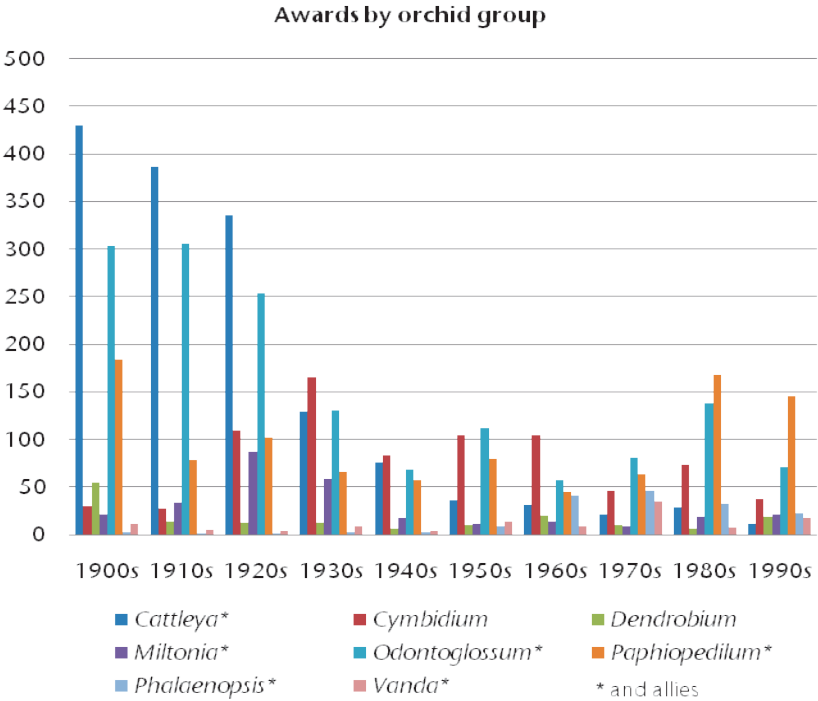


Table 5. Number of RHS awards by orchid group

	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s
<i>Cattleya</i> *	430	387	336	130	76	36	31	21	29	11
<i>Cymbidium</i>	30	28	109	165	83	105	105	46	74	37
<i>Dendrobium</i>	55	14	13	13	7	10	20	10	7	19
<i>Miltonia</i> *	22	34	87	59	18	11	14	9	19	22
<i>Odontoglossum</i> *	303	306	254	131	68	112	58	81	138	71
<i>Paphiopedilum</i> *	184	79	102	66	57	80	45	64	168	146
<i>Phalaenopsis</i> *	3	1	2	3	3	9	41	46	33	23
<i>Vanda</i> *	12	5	4	9	4	14	9	35	8	18

* and allies

In 1950 the British Orchid Growers' Association (BOGA) was formed, and the first British Orchid Show was held in the RHS Halls in March 1951 (Rittershausen, 2000). As the century drew near its end, attendances at the annual Orchid Show increased greatly, and it seemed as though the spread of orchid-growing through the wider population was on a growth curve with no end in sight. Brian and Wilma Rittershausen published *Popular Orchids* in 1970, initiating over thirty years of books popularising orchid growing. Burnham Nurseries, the Rittershausen family nursery, also staged an event not seen since the nineteenth century: the exhibiting of a gigantic *Grammatophyllum* in 1982 (see the cover of the November 1982 issue of *The Garden*). BOGA was becoming increasingly involved in small, grass-roots orchid fairs and training demonstrations.

Changing fashions in orchid breeding

The RHS orchid portrait collection, with around 7,000 images of orchids that have received awards at the Society's shows, is a rich resource in tracing the fashions in orchid breeding during the twentieth century. A large and magnificent tome could be written using this material, and indeed one has been written, Mark Griffiths' *Orchids* (2002). What follows is a brief survey of the significant trends in the popularity of different genera of orchids, which have, in Lewis Castle's expressive phrase, been "petted and neglected" over the past century or so (Castle, 1889: 5).

The nineteenth century had seen an interest in a wide range of species, and the early hybridists had experimented with many genera, but three categories of orchids easily dominated breeding at the beginning of the twentieth: cattleyas, odontoglossums, and paphiopedilums. *Cattleya* and its hybrid genera were wildly popular, in terms both of commercial production for a comparatively mass market, and as a favoured stock for breeding: the large-bloomed laeliocattleyas and brassolaeliocattleyas were possibly the most prestigious of orchids until well into the interwar years, and accounted for the greatest bulk of Nellie Roberts' painting at the start of her career. Plants in

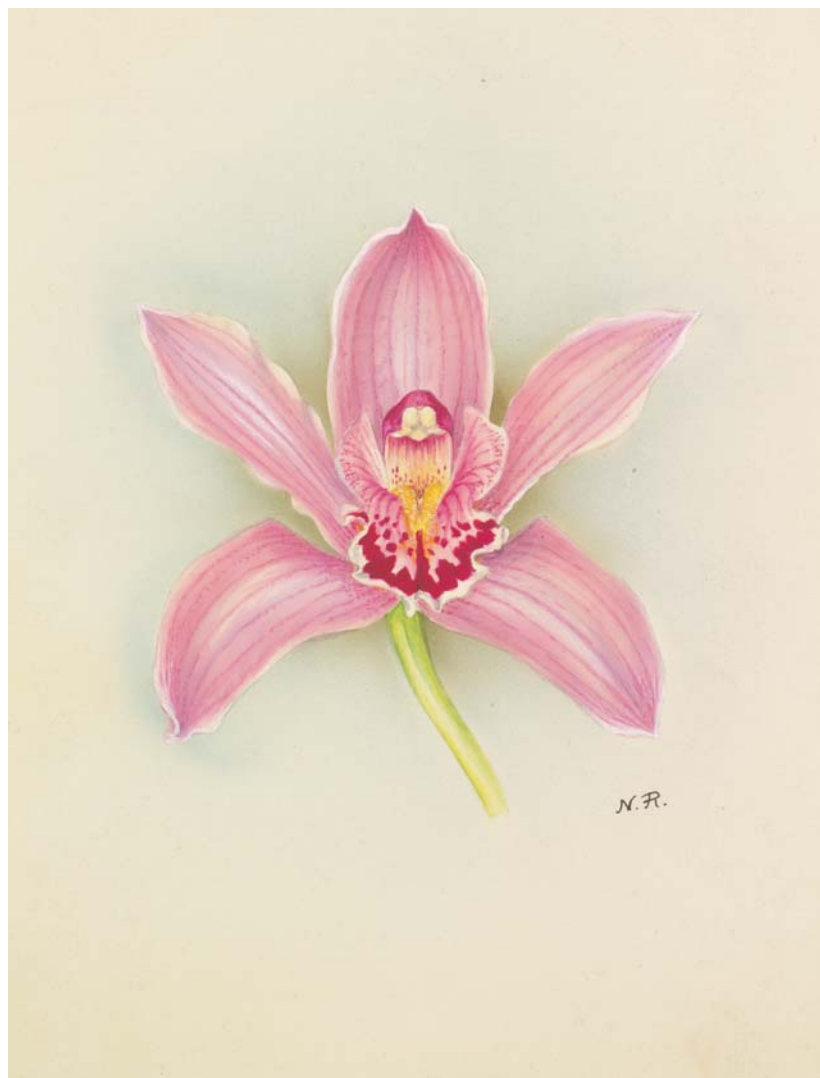
the *Cattleya* alliance received 44 awards in 1897 alone, 38 in 1898, 58 in 1899, and 47 in 1900, easily outpacing any other category.

Second to these was the *Odontoglossum* alliance. De Barri Crawshay caused a fuss when he declared in 1904 that the next stage was to breed red odontoglossums; and soon after, Charles Vuyksteke exhibited the first odontioda, \times *Odontioda* Vuylstekeae gx, at the Temple Show, fulfilling Crawshay's prophecy. Within a few years breeders all over Europe were turning their hands to *Odontioda* (Crawshay, 1910).

The third category was Asiatic slipper orchids, then still known as *Cypripedium*. Breeding in all other genera was small-scale by comparison, but *Dendrobium*, *Cymbidium*, *Miltonia*, *Calanthe*, and *Zygopetalum* all had reasonable levels of hybrid production, and there was a flurry of interest in *Masdevallia*, possibly associated with Florence Woolward's book (Woolward, 1890–1896).

After the First World War, the enthusiasm for the *Cattleya* alliance was still high initially (336 awards in the 1920s, as opposed to 430 in the 1900s), but began to decline precipitately: 130 awards in the 1930s, 76 in the 1940s. The large and showy blooms that had been the height of fashion at the century's start were coming to seem ostentatious, and eventually vulgar. Unlike some Edwardian favourites, the cattleyas never made a significant comeback. "Let's face it – the *Cattleya* still has a bad reputation", said one grower in the 1960s (Ferrer, 1967), and by the 1990s cattleyas were struggling to keep the number of awards in double figures. The fall from favour of the *Odontoglossum* alliance displayed a parallel curve. The fad for *Masdevallia* was now over, along with the popularity of *Zygopetalum*. \times *Vuylstekeara*, on the other hand, climbed into popularity between the wars: 38 awards before the Second World War.

The *Orchid Review* in 1916 noted that dendrobiums were not as popular as they had been a short while before (Barker, 1916: 101) – despite



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Fig. 11. *Cymbidium Alexanderi* gx 'The Princess'. Award of Merit, 1924 (J. & A. McBean). Drawing by Nellie Roberts, 1924.

the fact that the majority of articles in that issue were on *Dendrobium*. The genus subsided from its Edwardian peak (55 awards in the 1900s), but remained steady for the rest of the century at a lower level. *Calanthe* initially retained its earlier popularity, but it started to fall off in the later 1930s. The interest in *Miltonia* hybrids, which had been perceived as monotonous before the War, was suddenly sparked in 1922, when Charlesworth's *Miltonia* Lord Lambourne gx received a First Class Certificate: "The whole flower was brilliantly coloured to what seemed an impossible degree" (Black, 1928: 228), and the miltonias gained their highest number of awards in the 1920s and 1930s (87 and 59 respectively). An even more impressive rise was shown by *Cymbidium*, with 109 and 165 awards in the two decades. The florist R. F. Felton predicted, just before the First World War, that cymbidiums would one day be the most popular orchids as cut flowers, and McBean's was particularly associated with the rise of *Cymbidium* (Anon., 1934b), but the single most important event in the breeding history of the genus took place in 1922, when H. G. Alexander produced *Cymbidium* Alexanderi gx 'Westonbirt', exploring the progeny of which seems to have happily occupied growers for the rest of the century (Humphreys, 1972).

After the Second World War, the popularity of \times *Vuylstekeara* fell away: no awards at all in the 1950s or 1980s, and only a smattering in other decades. The decades from the 1950s to the 1970s saw interest in the *Paphiopedilum* and *Odontoglossum* alliances fall to its lowest level. *Cymbidium* remained consistently popular: over 200 awards between 1950 and 1970. A little surge of interest hit *Renanthera* and its associated hybrid genera, which had struggled into the 1950s with a grand total of five awards; 21 awards came their way between 1959 and 1985, after which they retreated. *Phalaenopsis*, which had received little more than a dozen awards in the first half of the century, moved forward into popularity, with over 40 awards a decade in the 1940s and 1950s, and smaller but respectable totals thereafter. *Vanda*, and the *Lycaste* / *Anguloa* alliance, started their climb into public esteem.



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Fig. 12. *× Vuylstekeara Cambria* gx 'Melba'. Award of Merit, 1944 (Charlesworth).
Drawing by Nellie Roberts.

In the closing years of the century, the *Paphiopedilum* alliance returned to something resembling its former strength, in part because *Phragmipedium* suddenly swept into popularity in the 1990s. Miltonias recovered from their 1970s dip; calanthes, *Phalaenopsis* and *Odontoglossum*-based hybrid genera remained high. Some Edwardian favourites returned. *Calanthe*, after languishing for most of the century, began to pull in awards in the 1990s, while the *Masdevallia* / *Dracula* group, which had last received an award before the First World War, began to attract attention from the 1970s, partly because of the discovery of a number of new species in South America, but also probably because of a delight in grotesquerie. The Veitch Nurseries had bred the first *Disa* hybrid (*Disa* Veitchii gx, naturally) in 1891, and a half-dozen hybrids followed by 1922; nearly 60 years passed before another *Disa* hybrid was reported, and then in the 1980s the number of new hybrids multiplied (Cywes, 2006). *Lycaste* and *Anguloa*, which had been slowly gathering strength since the War, reached their peak of popularity in the 1990s. African (Stewart, 1985) and Borneo species attracted increasing attention.

There is always a time-lag between an award for a new hybrid and its commercial distribution; and frequently the orchids that are most commercially successful have little to do with the efforts at orchid breeding that have been the subject of most of this essay. *Phalaenopsis*, for example, experienced a surge of interest among breeders in the 1980s, with over 60 awards made in that decade; since then there have been no more than five in a year. But *Phalaenopsis* is probably the most popular orchid genus at the present time, in terms of gross sales in nurseries, shops, and market centres. Public interest in orchids may well never have been higher than at present, but most of that interest is directed not at the hybrid orchids in the glasshouse tradition, but in hardy orchids for the garden, and in species.

The loss of native British orchids has long been a matter of concern to gardeners without having any effect on orchid breeding. Those



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Fig. 13. Orchid stand at the Chelsea Flower Show, 1956.

who have been concerned with the creation of new orchid hybrids have tended to take no interest in native species. There is a story that Joseph Chamberlain, sometimes claimed to have done more than anyone else to popularise orchids in the later nineteenth century (Anon., 1914b), if only by always having an orchid in his buttonhole when appearing in public, once tackled Sir John Lubbock in the House of Commons to learn the identity of a strange new orchid he had in his buttonhole – only to find out that it was a common British species. When we hear that in a landscaping project in Alsace thousands of European orchids were used to plant motorway verges (Sprunger, 2001), we have a glimpse of one probable future for orchids in Britain. But there is no foreseeable end to the process of orchid breeding. Preferences in genera, in pattern and shape, in flower size and colour, will continue to shift, but a century and a half

after the first artificial orchid hybrid was created, the tradition of hybridisation is still going strong.

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Occasional Papers from the RHS Lindley Library: future issues

Volume 3. The reception of Charles Darwin in the British horticultural press

Most people think of Darwin in terms of zoology, though he devoted most of his last twenty years to botany, and drew on plants as well as animals for illustrations of his evolutionary theory. But even those who are aware of his contributions to botanical science may be startled to learn that one of his obituaries claimed that “No man has done more to raise horticulture” than Darwin. For over forty years he was a contributor to the horticultural press, and his successive works were reviewed and debated in the gardening magazines. This article shows the development of his reputation as an important figure in horticulture.

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