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Studies in the history of British fruit.
Part 2



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Cover illustration:

Pear 'Williams' Bon Chrétien', drawn by Hooker.

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Orchard archives: the National Fruit Collection

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The National Fruit Collection is a collection of living fruit trees and bushes growing at Brogdale Farm near Faversham in Kent: the largest collection of temperate fruits on one site in the world. In total it conserves some 3,500 cultivars of over 2,000 apples, around 500 pears, 336 plums, 322 cherries, over 100 black, red, white and pink currants, nearly 150 gooseberries and smaller collections of grapes, nuts, medlars, quinces and apricots. There is no equivalent in Europe. Although collections of a comparable size are maintained in the United States, these tend to focus on one fruit and are dispersed across the States with, for example, the apples in New York and the pears in Oregon far away on the Pacific Coast. The Collection at Brogdale has the additional advantage of being open to the public. Visitors have likened it to a “Victoria and Albert Museum of fruit”, a “fruit school room” and, not surprisingly, a “fruit lover’s paradise”. While the colours, forms and tastes of the fruits themselves and the stories they tell amply justify such tributes, its fundamental purpose is to conserve the genetic material contained in the cultivars. The National Fruit Collection is now owned and funded by the Department for Environment, Food and Rural Affairs (Defra) as a scientific resource, to provide a gene bank for fruit breeders and form the UK’s contribution to an international programme for the global protection of crop plants and future food security, the International Treaty on Plant Genetic Resources for Food and Agriculture.

The National Fruit Collection began nearly ninety years ago at the Royal Horticultural Society (RHS) gardens at Wisley in Surrey. There its daughter collection continues the Society’s support of fruit collections that stretches back to its own foundation as the Horticultural Society of London two centuries earlier. In many ways, the Brogdale Collection has its origins in 1823 when the Society commenced a fruit collection at its garden at Chiswick, then outside London, although in fact there

¹ This paper is adapted from a talk given by Dr Joan Morgan at the RHS/Europom Conference held at RHS Garden Wisley, 22 October 2010.



HUGH ERMEN

Fig. 1. Part of the present apple collection in the National Fruit Collection, Brogdale, Kent.

was very little, if any, continuity of material between them. Even so, the background to today's collections is closely bound up with the story of nineteenth-century horticulture. The reason for the creation of both the Chiswick orchard and the National Fruit Collection was the same: to resolve the confusion of different names acquired by cultivars as they were propagated and distributed from country to country, region to region, and through nurserymen re-introducing old cultivars under new names. That a tree was the true cultivar was crucially important, since planting the wrong one resulted in years of disappointment and loss of potential return for the market grower and private gardener. The solution lay in a collection of cultivars, verified as correct through checking against published descriptions, and at the same time documenting the new introductions. The intention was that this would then serve as a living reference library for sorting out synonyms as well as identification of unknown samples and a verified source of scion wood for the propagation of new trees: roles which the present collections continue to fulfil.

“Resolution of synonymy in fruit varieties” formed one of the Horticultural Society’s research programmes in 1815 (Elliott, 2004: 251–67), prompted by the first of the waves of new and improved cultivars that would revolutionise Victorian fruit cultivation and provide us with many of our most valued fruits. In these studies the Society acted as the focal point for Europe and served as an entrepôt distributing scions of the latest introductions, sending them even across the Atlantic to its American sister societies under the energising presidency of Thomas Andrew Knight, a Herefordshire squire and acclaimed fruit breeder. The finest fruits were recorded by one of Britain’s leading botanic artists, William Hooker, making this period a golden age of fruit paintings and exquisitely illustrated Pomonas. As a result of the Society’s activities, fruits achieved prominence and began to be planted widely: for example, after being commended by Fellows, ‘Keens’ Seedling’ went on to become the first of the commercially important modern large-fruited strawberries and ‘Williams’ Bon Chrétien’ the world’s most widely grown pear. ‘Williams’ Bon Chrétien’, a painting of which by Hooker is reproduced on the cover of the present volume, also nicely illustrates the issue of synonyms. It was raised in England and so named at a Society meeting; but in America, because its label was lost, it was given the name ‘Bartlett’, after the man who bought the property on which the tree grew. Although the two names were later discovered to refer to the same cultivar, it remains ‘Bartlett’ in the US and Canada and ‘Williams’ in the rest of the world.

Work on fruit identities reached a new level of investigation when the Society acquired a garden at Chiswick outside London in 1822 and could itself plant a collection of trees, rather than relying on Fellows’ gardens and opinions. Similar large fruit collections existed elsewhere, particularly in Belgium, Paris and New England, but none was quite the equal of the Society’s. After visiting Chiswick in 1845, an appreciative American nurseryman, Charles Hovey, commented that “No one who is not conversant with the subject of identifying fruits and detecting synonyms, can form an idea of the care and labor which has been expended by Mr. Thompson during the period he had charge of the Society’s collection” (Hovey, 1845: 129). Robert Thompson’s catalogues of Chiswick’s fruits formed landmarks in fruit history, particularly that of 1831, which recorded the names, with some detail, plus synonyms of

1,400 apples, 622 pears and similar lists of all fruits then grown, including 56 pineapples.¹

The Society's fortunes, however, went into decline during the 1850s. It recovered, but fruit studies were not pursued again with the same level of commitment. Fruit, nonetheless, was kept on the agenda by the pomologist Dr Robert Hogg, the backbone of the Society's Fruit Committee and at one time of the whole Society (Elliott, 2010).² Confusions created by synonyms remained a problem, as Hogg's *Fruit Manual* of 1884 demonstrated in its comprehensive records of every fruit cultivated in British gardens and orchards. 'Warner's King', for example, was known at the beginning of the century as the 'King' apple in London but 'Weaving' in Kent, the village where it arose, and later 'Killick's' after a nearby fruit farmer who grew it with great success. Then a Hertfordshire nurseryman gave it the prefix 'Warner's' and another in Chester renamed it 'David T. Fish' in honour of a distinguished head gardener. Part and parcel of the problem of synonyms and more pressing was the question of which were the best cultivars to grow and in particular to plant "for profit". Market fruit production was expanding with the vast improvements in transport and communications that resulted from the growth of the railways, but growers lacked direction, with no central focus for fruit studies. The Society no longer took the lead and its Chiswick fruit collection failed to keep up with the numerous new introductions, while the area of orchards steadily expanded beyond the belt of market gardens around cities. Farmers, for instance, in the cider county of Herefordshire could broaden their horizons and invest in the more profitable fresh fruit for markets that were previously beyond their reach but now easily accessible by train. With this in prospect Hereford initiated its own research. Shows were organised every year to explore

¹ *A Catalogue of the Fruits cultivated in the Garden of the Horticultural Society of London*, 1st ed 1826; 2nd ed 1831, 3rd ed 1842, supplement 1853. In the 1831 edition, in the form of tables and using abbreviations, Thompson covered every one of the Collection's fruits giving their synonyms, the colour, shape, size, use, texture, quality, season of the fruit, situation in which it would succeed and any further pertinent remarks.

² Hogg's *Fruit Manual*, 5th edition (1884), covered, for example, 717 apples and 647 pears.



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Fig. 2. Top. The RHS National Apple Congress of 1883, staged in the Chiswick vinery. Bottom. The 1934 RHS Autumn Show, which also marked the fiftieth anniversary of the 1883 Apple Congress and 1885 Pear Conference.

local fruits and some of the best new apples and pears, which were recorded in the glorious *Herefordshire Pomona* (1878–1884), co-edited by Hogg.¹

The *Pomona*, published in annual instalments, served as a trigger for a nation-wide survey and the National Apple Congress of 1883, hosted by the Royal Horticultural Society, although at first the Society displayed a reluctance to be associated with so mundane a subject, wondering “whether it was or was not departing from its dignity in allying itself with an exhibition of Apples.” But it was an exceptional year for fruit with almost every tree cropping, which allowed the fruit experts, led by Hogg, to undertake the Congress’s ambitious project of examining almost the entire British apple population. With apples gathered from all over the country, the aim was to unravel the synonyms used in different regions and arrive at a consensus among the exhibitors as to which were the top cultivars. They repeated the exercise for pears at the National Pear Conference in 1885 and held a further Apple and Pear Conference in 1888. From the mass of samples and exhibits sent in by head gardeners, nurserymen and amateurs and laid out on tables in the Chiswick vinery and further marquees, they identified some 1,500 apple cultivars in 1883 and over 600 pear cultivars in 1885, while the exhibitors selected the leading apples and pears (Barron 1887, 1888; Morgan, 1983).

Commercial fruit growers were desperately in need of guidance if they were to modernise their orchards and effectively compete with the imports that flooded in not only from the Continent but also the United States, following the arrival of steam ship transport. Colonial Canada sent apples and then the furthest reaches of the Empire – South Africa and Australasia – began exporting fruit to the UK, but the southern hemisphere was not a substantial competitor with cargoes arriving at the very end of the English season. The Society now put its weight behind a Fruit Crusade to promote home-grown fruit through the fruit shows of the 1890s, staged to demonstrate to the British public just what quality could be grown in our much maligned climate and oust the “Yankee” apples (Morgan & Richards, 2002: 114–123). However, by and large, fruit growing

¹ Hogg and Bull’s *Herefordshire Pomona* (1878–1884) was based on fruits exhibited at annual shows held in Hereford, organised by the Woolhope Naturalists’ Field Club.

for market was the poor relation of Victorian horticulture, which revolved around the needs of the private garden. Head gardeners voted on which were the best ones to plant in 1883 and 1885 with little input from market growers, yet their objectives differed in many respects. Estate gardens maintained large collections in order to sustain the demand for successions of handsome, well-flavoured fruits for the dessert, the grand finale of fresh fruit served at the close of the formal dinner. Its dominating influence still endures in our categorisation of all fruits into dessert, that is, cultivars of the finest eating quality, and culinary for the kitchen. Of course, the market man also wanted to grow good fruits, but needed to concentrate on a few reliable, heavy-cropping sorts to make any profit.

By the turn of the century, with farmers and landowners diversifying and investing in fruit as a result of declining returns from mainstream agriculture, the area devoted to orchards and soft fruit plantations had increased enormously, and information about which cultivars to plant was needed with increasing urgency. The area doubled in the two main counties supplying London markets, that is, the Middlesex Thames Valley and Kent between 1873 and 1898. East Anglia came into market fruit for the first time, the West Country invested in orchards for fresh fruit as well as liquor and in one way or another almost every county grew fruit (Béar, 1899: 1–57). They planted the gardeners' and nurserymen's recommendations and three, among many others, that remain market leaders: 'Cox's Orange Pippin', voted the best apple of southern England in 1883; 'Bramley's Seedling', which came to prominence at this Congress; and the 'Conference' pear, introduced at and taking its name from the 1885 Conference.

The modern English fruit industry was born. But it gradually distanced itself from the private garden to carve out an independent path. Casting aside the old authorities, commercial fruit growing allied itself instead with the new biological sciences of genetics, entomology, microbiology and soil science, which were harnessed at three fruit research institutes set up in the early 1900s, initially through private funding and later government backed – the National Institute for Cider Research, Long Ashton, near Bristol (1903); the John Innes Horticultural Institute, Merton, South London (1910); and the University of London's Wye College, Kent, whose Fruit Experimental Station at East Malling became East Malling Research Station in 1921. All three institutes embarked on fruit breeding



Fig. 3. The 'Cox's Orange Pippin' apple, drawn by Elisabeth Dowle. England's most loved apple – the top dessert cultivar in 1883, voted the best-flavoured apple of all at the RHS fruit shows of the 1890s, and our main market apple until recent times.

programmes. To complete the underpinning of the English fruit industry, Commercial Fruit Trials were established at the RHS Garden, Wisley, Surrey, in 1922 as a joint undertaking between the Society and the Ministry of Agriculture. Their aim was evaluation of cultivars for the fruit industry and side by side with these trials a new fruit collection was established.

Here, at Wisley, we have the origin of the National Fruit Collection, where it formed an adjunct to the Trials and fulfilled a long established role as a living reference library. The Wisley estate had been donated to the Society in 1903, but it appears that Chiswick's fruit collections were so neglected that there was no mass transference of material from Chiswick to Wisley. Fruit trees were planted or grafted in 1905,¹ but formal records began in 1915, and this acquisition of fruit trees, plants and scion wood commenced in earnest after 1922 with the launch of the Trials. A key player in their formation and the associated fruit collection was Edward Bunyard. He is best known now as the author of *The Anatomy of Dessert* (1929), a lyrical account of the flavours of all fruits and their cultivars that were worthy of serving at the dessert. But Edward was much more than the author of this endearing book, and was well placed to appreciate the commercial growers' needs in his roles as a Kent fruit nurseryman and Britain's leading pomologist, while also a member of the RHS establishment: chairman of the Society's Library and Fruit and Vegetable Committees and, from 1923, a member of Council, its governing body. From these positions of influence he brought together the old expertise and the new developments at a time when the English industry faced tremendous competition from European, colonial and American imports, yet at the same time encouragement from nation-wide campaigns to "eat more fruit". Edward was head of the family business (the nursery George Bunyard & Co. Ltd) at Allington near Maidstone, but he always styled himself a pomologist. As the author of the *Hand Book of Hardy Fruits* (1920, 1925), he took on Dr Hogg's mantle of authority, bringing the records up to date, although in a less discursive and encyclopaedic style. His pomological work was based on the nursery's fruit collection, which was probably the largest in the country. There was no Society collection,

¹ Dr Emma-Jane Lamont, curator of the National Fruit Collection for Imperial College at Wye, found that there were accessions in 1905 and entered these in the National Fruit Collection Accession Book.

nurseries such as Laxton's and River's maintained large collections, and the fruit institutes were building up their resources, but none was comparable with that at Allington. Bunyard worked hard to make this collection "true to name" for the nursery's good reputation as well as his own studies. At heart he was a collector and indulged his passion, conserving old cultivars and making bold introductions: the Nursery's 1924 catalogue, for instance, includes the now infamous 'Golden Delicious' many decades before it became well known this side of the Atlantic (Morgan, 2007).

As part of an international fellowship of fruit men Bunyard's contacts lay not only on the Continent but also in America with Dr U.P. Hedrick, director of the New York Agricultural Experimental Station at Geneva, set up some forty years earlier. A fruit collection commenced there in 1883 and provided the basis of the series of seven erudite pomonas, *The Fruits of New York*, covering every main fruit and published between 1905 and 1925.¹ Such levels of government support for pomology were unheard of in England. Bunyard ached with envy and reflected that "never has pomology been so well supported as it is today in America". He was keenly aware of the progress going on in other countries and conscious of the omissions at home, particularly that research undertaken at English fruit institutes was not being published beyond their own annual reports, yet of wide general application. Bunyard took the lead and founded a discussion and information forum, the quarterly *Journal of Pomology*, which he edited, published and financed for three years from 1919–1921 until it was taken over by the research institutes, no doubt to the relief of the nursery's bank manager.

In the first issue of the *Journal of Pomology* in 1919 we find an airing of the notion of fruit trials and a collection in an editorial piece, undoubtedly by Bunyard. He wrote of the need for an independent evaluation of cultivars since there was always the possibility of some paternal bias on the part of the breeder, whether a nurseryman, amateur or professional. Bunyard drew attention also to the difficulty of deciding with certainty that a fruit was new rather than an old one. For "even if we assume the existence of Pomologists so skilled in fruit knowledge that they would undertake to recognise any of the 5,000 or more Pears that have been introduced, it

¹ The first volume of *The Fruits of New York* covered apples, followed by grapes, plums, cherries, peaches, pears and "small fruits".

is quite certain that a Committee of such men or super-men could not be expected to recall at any moment these varieties from their inner consciences." Here was the essence of the new Trials: rigorous evaluation, possible only with a fruit collection (Bunyard, 1920).

Bunyard, very likely, put together the proposal for a "Trial of Fruit" presented to the RHS Council on 13 December 1921. He was nominated along with three Council members to form a Committee to confer on the subject with the Ministry of Agriculture. The Ministry's negotiator was Sir Daniel Hall, soil scientist, pioneer of university agricultural education, and Wye College's first Principal with a meteoric career that took him to become the government's Chief Scientific Advisor. The outcome and statement of their aims ran as follows: "the primary object in the testing of new varieties of fruit is to show their potential value for market purposes in order to bring prominently before growers varieties of exceptional promise at the earliest possible moment, and to afford them an opportunity to see them growing on sufficient scale. Other objects are to define the characters of varieties under trial and to compare them with known varieties, so that accurate descriptions may be made, synonyms determined and the nomenclature of the fruits made more exact" (RHS Council Minutes, 13 December 1921; see also Chittenden, 1935: 3–4; Anon., 1922).¹ In the latter objective, which could have come straight from Edward's pen, was the implicit assumption of a fruit collection.

The Trials, their accompanying collection, and a nursery ground for propagating trees were established on Society land at Deers Farm in Wisley village. Alongside these, "a collection of standard varieties" in the 1920s comprised 340 apples, 145 pears, 65 plums and damsons, and a range of soft fruits (Anon., 1922). RHS staff carried out the trials assisted by a grant from the Ministry of Agriculture. Overall administration lay with a Joint Committee of ten, consisting of five leading figures from the scientific community and fruit industry and five representatives from the Society, under the chairmanship of William Bateson, director of the John Innes Institute, who had coined the term genetics; on his death in 1926 he was succeeded at John Innes and on

¹ The objectives are also included in the Minutes of the Commercial Trials, 18 September 1922; minutes held in the National Fruit Collection Library. I thank Mary Pennell of the National Fruit Collection, FAST, the University of Reading and Defra for making these available to me and other records from the Library and archives.



the Committee by Sir Daniel Hall. They embarked on trials of apples, pears, plums and soft fruit. After some years of observation the best cultivars were then sent out for further evaluation at ten sub-stations in different parts of the country. By the end of 1931 with the first trials of strawberries, currants and raspberries completed, and 110 apples under investigation, the first report was published and an exhibit of apples from the Trials staged at the November Imperial Fruit Show held in Manchester (Anon. 1932a, 1932b). One important fruit, however, could not be trialled at Wisley – cherries, which did not thrive in its sandy, acid soil. Following Bunyard’s suggestion made to the RHS Council in September 1932, it was agreed that cherries would be trialled at the Kent Farm Institute at Borden, near Sittingbourne, opened in 1930 (RHS Council Minutes, 23 September 1932). At Wisley the area of land occupied by fruit at Deers Farm expanded to 38 acres by 1934 and Bunyard was pressing for more. He negotiated additional land for a “standard collection of pears” at a Council meeting on 4 June 1935. Although, with visions of Wisley becoming one great orchard, “Mr Bunyard was asked to keep within limits” (RHS Council Minutes, 4 June 1935).

The standard pear trees were planted in the heart of the gardens, not at Deers Farm, but in the area that is now the new rose garden leading up to the Bowes-Lyon Pavilion and probably also extended further on either side. Records, surviving at Wisley, include a “map” of the standard pear collection showing around 131 trees of about 80 well-known cultivars. They must have been magnificent, soaring up into the sky and a prominent feature making a bold and stately statement of the Society’s renewed interest in fruit. More pears were grown as cordons, probably at the top of the slope, with again two trees of each, planted in 24 rows bringing the total number up to 257 cultivars in 1938. Those in the cordon collection were much more diverse and included a number from Russia. These were among the first of the many accessions from around the world that now make the Collection particularly fascinating for students of fruit history.

Fig. 4 (opposite). Plan of the “Old Pear Collection”, or “standard pear collection”, at RHS Garden Wisley, from the original dated 1947. This was no longer present by the early 1950s when a rose garden had been established on part of this site. (My thanks to Robin Stapleton, past director of National Fruit Trials, for this information, to Jim Arbury, fruit superintendent at Wisley, for making the map and other records available, and to Dr Alex Alvergne.)

Pears from the USSR may have arrived as a result of the visit to Britain by the Russian botanist Nicolai Vavilov in August 1930 when he attended the Ninth International Horticultural Congress hosted by the RHS in London. Bunyard chaired the session at which Vavilov brought news of his pioneering work exploring forests of wild fruit species in search of the origins of our crop plants, which took him from the Caucasus across Central Asia to the foothills of the Tien Shan mountains in Kazakhstan on the borders of China. Collections of regional cultivars and promising seedlings were established at field stations across the USSR. At the London meeting he proposed the idea of “centres of diversity” for different fruits that has guided thoughts ever since. During conversations with Vavilov, Bunyard and Hall may have inquired about obtaining material from his collections in St Petersburg and elsewhere, resulting in the accessions recorded in 1936 of plums and cherries and in 1937 of some 13 pears with a number of these from the Caucasus, which is believed to be one of the centres of diversity for the pear (Vavilov, 1930).¹

Most of the material coming into Wisley, of course, was for the Trials and included the fruits raised, for example, by Laxton’s nursery which introduced new apples, pears, plums and other fruits almost every year during the 1920s and 1930s. The Canadian fruit breeder W. T. Macoun sent scions of his apples for trial in 1925 and in 1929 more apples came from the New York State Agricultural Experimental Station in Geneva.² Members of the RHS Fruit Committee decided which cultivars went into trial and also contributed to the collection. Fred Streeter, for example, head gardener at Petworth and the “Radio Gardener”, sent scions of old Sussex apples. The leading nurserymen, Edward Laxton, the Rivers family and Bunyard, gave many scions and trees, especially for the pear collection. A chance to gain many more came through the 1934 Apple and Pear Conference hosted by the RHS at the Crystal Palace, Sydenham, London, and masterminded by Bunyard. Their intention was to bring “before the apple-growing and the apple-eating public the results of our research at Wisley”, declared the President in his opening speech. Displays of apples under trial were staged at the accompanying Autumn Show but the highlight of the Show was an exhibition of apples gathered from all over the country. These

¹ Accessions from USSR in 11/2/36 and 1/4/36 are recorded as coming from Inst. Plant Industry, Leningrad via Hall and 7/4/37 from Prof. Popoff, Leningrad.

² National Fruit Collection Accession Book; see 1/9/25, 14/3/29.



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Fig. 5. John (“Jock”) M. S. Potter, manager of the Trials and collection at Wisley from 1936 and director of the National Fruit Trials 1946–1972.

presented the Fruit Committee with the opportunity to survey Britain’s apple population once again.

The plan to follow in the footsteps of their predecessors of 1883 was hatched the previous autumn when Bunyard reported to Council that H.V. Taylor, the Ministry’s Commissioner for Horticulture and a member of the Trials Committee, would use the services of his inspectors to collect local apples. Although the 1934 exhibition did not equal the numbers collected for the National Apple Congress a half century before, some 900 apple cultivars went on display. This provided the occasion not only to weed out synonyms but to add to the Wisley collection through identifying and tracking down little-known apples, while the exhibition’s inventory served as a future reference for regional fruits (Chittenden, 1935: 179–213).

By this time, Wisley’s collection was sufficiently noteworthy to form the basis of Taylor’s *The Apples of England* in 1936; he also published *The Plums of England* in 1948, with both volumes illustrated by colour photographs in the style of Hedrick’s New York series. “Knowledge of varieties, which is part of the inheritance of the country-bred man, is becoming rarer among our predominately urban population”, mused Hall in the preface to the apple volume. Taylor himself, as the son of a Somerset farmer, sympathised with the view that people were far too captivated by the flood of imported

American apples, which appeared “almost machine-made in their bright polish and shop finish” (Taylor, 1948: v–vi). Bunyard railed against them in his many articles and books, particularly the ubiquitous, bright red, but comparatively tasteless ‘Jonathan’, which was then planted across the globe and later followed by ‘Red Delicious’. He could see that rationalisation easily might go too far, and pressed on rediscovering and publicising old cultivars before they were forgotten. Bunyard died in 1939, leaving the fruit collection at Wisley in the safe hands of the young Scotsman John, or rather “Jock”, Potter, as he was always known.

Potter became the father of today’s collection, building it up to almost its present level over the next thirty or so years. He took over management of the Trials and all fruits at Wisley in 1936 on the retirement of A. N. Rawes, although as a young Wisley student Potter was already involved with the work. He told me that he regarded Bunyard as his mentor and Bunyard could not have had a more eager pupil. For Potter was an obsessive collector and, as well as gathering in all the new fruits, he aimed to find as many as possible of those documented by Hogg in his *Fruit Manual*. Fortuitously the war years provided many opportunities. With food in short supply every fruit tree became precious and people wanted to know what they had growing in their gardens and orchards. They sent samples in to Wisley for identification: a task that the Society’s Fruit Committee had long undertaken and which now became mainly Potter’s responsibility. If he identified or thought he had found anything new, he would ask the sender for some scion wood, in order to propagate a tree, confirm its identity, and bring it into the collection. So the numbers continued to expand. No brake was placed on Potter’s missionary zeal by the Trials Committee, who firmly stated that no reduction should be made to the collection in 1943 and again in 1944. In 1947 the Committee went one step further, stressing the need that the collection be as complete as possible and, with prophetic wisdom, that “there would be no comparable collection elsewhere and it would be of international importance”¹

The pages of the accession books record numerous contributions during these years, but the ones that stand out for their frequency are those made by Philip Morton Shand and his network of collectors. Shand was

¹ Minutes of the Commercial Trials June 1943, February 1944, July 1947.

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Fig. 6. Clockwise from top left. Philip Morton Shand, H. V. Taylor, John Bultitude, Edward Ashdown Bunyard.



Fig. 7. The 'Conference' pear, drawn by Elisabeth Dowle. The most widely planted pear in England by the 1920–30s, the standard by which all other mid-season pears were judged in the National Fruit Trials and now the main pear of England and northern Europe.

a linguist and writer on modern architecture, wine and food, with a deep passion for English apples. During the war years with the Admiralty in Bath, he spent his spare time tracking down “lost” apples. He rallied support for his cause through radio broadcasts and articles in the *RHS Journal*, and organised a band of friends to help; they included Sir Leslie Martin, the architect, Gerald Finzi, the composer, and a Miss Holliday in Yorkshire. Shand raised public awareness of the need to conserve fruits, beguiling his listeners and readers with descriptions of old cultivars that they might never taste again if something was not done to keep them alive in people’s minds and gardens. The apples flooded in to be identified. He took them along to Harry Lock, a well-known West Country fruit judge who was semi-retired from Long Ashton. Any that proved unusual were pursued, and graftwood was obtained and passed on to Wisley. Shand recalled taking “wood that was frequently not merely dishearteningly unpromising but to all appearances utterly sere and shrivelled” to Potter, who with “a wizard’s sleight of hand” grafted and propagated new trees (Shand, 1949: 91; Morgan & Richards, 2002: 102–104).

Almost weekly during the winters of 1945, 1946 and 1947, accessions came in from Shand’s group. No doubt many proved to be false claims and duplicates of ones already in the collection, but nonetheless their work added considerably to the numbers. Not content with collecting in Britain, Shand established contacts with nurseries and research institutes in Switzerland, France and Germany, whose contributions, during 1947–1950, greatly expanded the international character of the collection, bringing in hundreds of old cultivars of apples, more than a hundred pears and also plums. Ten years later in 1957, he was still sending in apples from Bulgaria and France. Shand may possibly also have had a hand in securing further old, regional fruits from Hungary and Romania in 1948, and in 1958 from all over Italy, from Turin, Florence, Bologna and right down the peninsula to Sicily.¹

¹ Accession Book of National Fruit Collection: Shand is credited as the initial source of material from an institute in Lausanne, Pépinières Moreau, Rhône, Pépinières Lepage, Anjou, and the Research Centre for the South West at Pont-de-la-Maye; Shand was possibly also responsible for contact in 1948 with the Centre for Research at Clermont-Ferrand. Subsequent contributions from these places are credited directly to them. Accessions in 1949 from Germany are due to Shand. Accessions

With the cessation of hostilities in 1945 and the future of postwar English fruit production under discussion, the Ministry of Agriculture and the RHS began critically examining the Trials. The Wisley site at Deers Farm was prone to frost so the results were not as meaningful as they might have hoped. Furthermore, Wisley in Surrey was hardly at the centre of commercial fruit production, which had its largest orchards and plantations in Kent. A new site was desirable, but first the Ministry took over all the funding, employing Potter in 1946 as Executive Officer, along with two assistants, of the renamed National Fruit Trials – that is, the whole enterprise, the trials and the collection. Potter, problematically, still lived in a Society house, but it was decided that this should be recompense for the services he gave the Society, not least in identifying all the parcels of fruit which the Ministry refused to have anything to do with. But a new location was urgently needed, since by 1952 there was no room at all left at Wisley, not even any space for propagating material for the trials. The current ten-year contract between the Ministry and the Society came to an end in 1956 and Potter believed that he could transfer everything to a new site by this date as well as clear the land at Wisley – the Committee minutes record purchase of a chainsaw in 1955 to assist in the evacuation programme.¹

In 1952 the Ministry bought Brogdale Farm, outside Faversham in Kent, in the centre of the East Kent fruit industry, the oldest fruit growing area in Britain. They considered other places – Blaise Farm at Offham near to East Malling Research Station was one, Wye College Farm² another, and considered looking in Essex and Suffolk, but settled on Brogdale, a fruit and dairy farm of 183 acres with 85 of these planted with young cherry trees. The sale included extensive farm buildings and a splendid Georgian farmhouse together with six cottages and a bungalow for the final price of £35,000.³ At the end of October the National Fruit Trials took possession to form one of the new horticultural experimental stations set up by the Ministry (MAFF) as part of its development and advisory

from Budapest and Bucharest in 1948 and from Italy in 1958 are credited to the institutes.

¹ Minutes of Commercial Fruit Trials, 28 August 1952, 12 December 1952, April 28 1955.

² My thanks to Brian Self for this information.

³ Sale document details are held in the National Fruit Collection Library. See also Potter (1972).



TOP. CROWN COPYRIGHT, SUPPLIED BY NATIONAL FRUIT COLLECTION LIBRARY, BROGDAL. BOTTOM. JOAN MORGAN.

Fig. 8. Top. National Fruit Trials main building, photographed in 1972. Bottom. The present cherry collection of the National Fruit Collection, Brogdale, Kent.



Fig. 9. Fruit exhibit staged by the National Fruit Trials and RHS Wisley Garden as part of the RHS Autumn Show 1983, which celebrated the centenary of the National Apple Congress of 1883.

services.¹ The barn was converted into offices, the cottages occupied by staff and Brogdale farmhouse became the residence of the director, Potter, until his retirement. By 1960 the re-propagation and transfer of the trials and collections from Wisley to Brogdale were complete. In the meantime, Potter made a selection of the best cultivars of all fruits for English gardens to form the Wisley Collection.

At Brogdale the number of trials soared – 80 were under way during the 1970s, not only of cultivars, but of other aspects of cultivation and fruit production, such as rootstocks, crop management, storage and mechanical harvesting, with some 30 staff employed. At the same time its fruit collection continued to expand, largely through contributions from UK fruit breeders at the English research institutes and fruit breeders across the world from America to Japan. Everything that went on trial was added to the collection, if of merit, as before. Assessment of Plant Variety Rights for fruit, which was undertaken at Brogdale after 1962, brought cultivars from all over Europe and, if granted rights, these were admitted to the collection. Very many more accessions came because the fruit breeders and research institutes sent, as well as cultivars for trial, anything that might be of interest from their own collections. For instance, Donald McKenzie, who selected the now well-known ‘Gala’ apple, began sending parcels of scions from New Zealand’s Havelock North Research Centre in 1950 and continued with dispatches in 1951, 1953 and 1961. The Institute of Plant Breeding in Wageningen, Netherlands sent apples in 1963 and 1964. Numerous plums came from Belgium, more plums and nuts as well as apples from Germany and even quinces from Izmir in Turkey.

Accessions were also received from private individuals, as had always been the case. Ben Tompsett, a Kent fruit farmer who was also a dedicated collector of trees, obtained Asian pears from Japan in 1971 and earlier Christopher Norbury, a Worcester fruit grower, secured new Italian pears.² During the late 1960s and early 1970s the cherry collection at the Borden Farm Institute, following its closure, was transferred to Brogdale,

¹ The Ministry of Agriculture Food and Fisheries; its National Agricultural Advisory Service (NAAS) became the Agricultural Development Advisory Service (ADAS).

² National Fruit Collection Accession Book for McKenzie: e.g. 9/9/1950, 18/8/1953, 27/6/1961; Tompsett: 8/4/1971; Norbury: 28/7/53; Izmir, 10/6/74.

expanding the breadth of the collection to include all the major tree fruits. The numbers almost matched those of today when Potter retired in 1972. Collecting continued under future directors and beyond: the cider apple and perry pear collection at Long Ashton was re-propagated and planted at Brogdale in the late 1980s, and gifts of wine grapes were also received.

Any collection, however, is only as good as its records, which were built up side by side with the living orchards together with a library of fruit books. Muriel Smith, who had joined the staff in 1954, published her famous *Apple Register* in 1971, the most comprehensive directory of apple cultivars ever produced. Miss Smith also compiled directories of the plum collection and British pears and formed a collection of plum stones and cherry stones as further aids to verification. John Bultitude, who had been a student at Wisley working with Potter before he joined the RAF, returned to the National Fruit Trials and produced, just before his own retirement, the apple identifier's bible, *Apples* (1983), with colour photographs by his Brogdale colleague Hugh Ermen, well known now for the apples he raised.¹ That year the two collections, at Wisley and Brogdale, joined forces to celebrate the centenary of the National Apple Congress with a spectacular display of apples and also some pears – about 300 cultivars in total – staged at the Autumn Show, which accompanied the RHS Apples and Pears Conference. Fruit and fruit-led exhibits from the research institutes, nurseries, individuals and the National Farmers Union entirely filled the RHS New Hall in Westminster, to which the Worshipful Company of Fruiterers added a display of their ceremonial plate (Napier 1984; Morgan, 1984).

Over the past twenty years or so both collections have been of enormous importance in fuelling public interest in fruit conservation and the rediscovery of regional fruits once long grown in an area but now scarcely known. This movement arose, in part, as a reaction to the increasingly narrow range of cultivars on sale in supermarkets, and as part of a more general concern over the loss of local landscapes following reductions in commercial fruit production and the adoption of more intensive systems based on dwarfed trees rather than the old, tall standards. Orchards and

¹ See Smith (1971) and Bultitude (1983). Morgan & Richards (2002) contains a directory to the apple collection of the National Fruit Collection at Brogdale.



Fig. 10. Muriel Smith, author of *The National Apple Register*, at work in the library of the National Fruit Trials, Brogdale, Kent, c.1970. (Crown copyright; supplied by National Fruit Collection Library, Brogdale.)

apples, in particular, are seen as part of the distinctiveness of a region: just as its foods, buildings and crafts contribute to the character of an area and community, so fruits help define a locality. We now mark and celebrate our national diversity on “Apple Day”, 21 October, introduced by Common Ground in 1990, while regional fruit societies, community orchards and projects rediscover their local specialties. With many of these fruits conserved in the National Fruit Collection and at Wisley, both collections have provided essential support, supplying reference material for identification of unknown samples and scion wood for producing new orchards. Old cultivars from all over Europe and further east had come into the Collection via fruit breeders, individuals and the Shand network, together with many from the US and Canada, as well as the former export apples of Australia, Tasmania and New Zealand. From this wealth of material the Collection has returned cultivars to their initial donors, such as Hungary, Romania and Ireland to name only a few. It acted also as a source of cultivars for America during the 1980s when little remained of the Geneva, New York, collection and fresh repositories

were established across the States.¹ And it was uniquely well placed to do this, since there is nowhere that has been collecting uninterrupted over the past ninety years. The Collection has entered the modern age with its own website. Its entire pear and apple collections have been DNA-fingerprinted by East Malling Research and these data provide another tool for identifying synonyms and duplicates, as well as means of verifying other collections; molecular work has also been used to identify differences in the cherry collection.²

The Collection's original *raison d'être*, however, the National Fruit Trials, closed in 1989/90, a victim of the Thatcher government's cuts to the Ministry of Agriculture and "near-market research", of which fruit trialling formed a part. But public pressure ensured that the fruit collection was saved, remained at Brogdale and became known as the National Fruit Collection; this year, 2012, marks the Diamond Jubilee of its establishment at Brogdale. Although the land and buildings were sold and passed into private hands, first to the Brogdale Horticultural Trust and in 2000 to Hillreed Land, the Ministry retains ownership of the Collection with a long lease on the land and provides the money for its curatorship and maintenance. The Trust, in partnership with Wye College (later Imperial College at Wye), secured the Ministry contract for the Collection: Wye undertook its curatorship and the Trust its maintenance, opening up the Collection to the public for the first time in 1990. Since 2008 the Ministry (now Defra) contract has been held by the University of Reading and Farm Advisory Services Team (FAST); Brogdale Collections is the charity responsible for public access and education, festivals, events and so on. Trialling of cultivars for the fruit industry is returning to Brogdale through FAST's own activities, while the Collection's roles as a public attraction and scientific resource are ongoing.

¹ Most of the material for the new repositories came from within the US but the National Fruit Collection provided some European cultivars; my thanks to Dr Joseph Postman, Curator of the National Clonal Germplasm Repository, Corvallis for this information and to Mary Pennell for finding the details.

² National Fruit Collection: www.nationalfruitcollection.org.uk. Molecular analysis of pear and apple collection undertaken by Dr Kate Evans and Dr Felicidad Fernandez, East Malling Research, Kent; molecular analysis on the cherry collection undertaken by Dr Ken Tobutt's group at East Malling Research; molecular work on pear and apple collection in progress and being undertaken by University of Reading.

Its founding fathers, Bunyard and Potter, did indeed create in the Collection a legacy of “international importance”, which carries on fulfilling its original aim of supporting the UK fruit industry and providing a living reference library. Even in our technological age, conservation of fruit cultivars can only be achieved through living trees since they do not “come true” from seed; although cryo-preservation of small shoots in liquid nitrogen is a conservation possibility, currently being investigated as additional back-up security for the Collection by the University of Reading. Today’s growers and supermarkets still find inspiration from the Collection’s immense diversity and cultivars that merit re-investigation for commerce, while fruit breeders employ its genetic potential to create new fruits. Alongside, pomology flourishes, especially among amateur enthusiasts who use the Collection, its trees, fruits and archives for their own studies and those of regional conservation groups. Long may it continue.

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Addresses of the two collections discussed

National Fruit Collection, Brogdale Farm, Faversham, Kent ME13 8XZ
 (www.nationalfruitcollection.org.uk; www.brogdalecollections.co.uk)
 Royal Horticultural Society Fruit Collection, Wisley Garden, Woking, Surrey
 GU23 6QB

Both collections are open to the public throughout the year.

English fruit illustration in the early nineteenth century. Part 2: Hooker, Withers and the Horticultural Society

B. ELLIOTT

The Lindley Library, The Royal Horticultural Society, London

William Hooker

William Hooker, who became probably the most eminent painter of fruit in nineteenth-century England, first appeared as a botanical artist in 1805, working with Richard Anthony Salisbury. Salisbury, a reputable botanist despite his quarrelsome nature and a tendency to coin new plant names for aesthetic reasons, lived at Mill Hill, north of London, on the estate which formerly belonged to Peter Collinson. In 1804 he was one of the founder-members of the Horticultural Society; the following year he began the publication, in parts, of a work entitled *The Paradisus Londinensis: containing Plants Cultivated in the Vicinity of the Metropolis*. Publication was to be completed in 1808; the work was both illustrated and published by William Hooker, described on the title-page as “pupil of Francis Bauer, Esq. Botanic painter to their Majesties”. The work consisted of 119 coloured plates of plants, with leaves of description by Salisbury. Most of the plants were greenhouse exotics, and the vast majority have now been renamed.

Biographical details about Hooker, beyond the facts of publication, are hard to establish; the principal account of his life is by W. T. Stearn, in the introduction to a volume of his selected illustrations (Stearn & Roach, 1989: 9–22). His birthdate, based on information from Salisbury, is given as 1779 (Salisbury: 85). I can confirm from the records available on ancestry.com that a William Hooker, son of John and Mary Hooker, was born on 7 February 1779, and baptised on 7 March at the Percy Chapel in Charlotte Street (no longer extant – demolished 1867). The date at which he studied under Franz Bauer is not known; he appears to have been Bauer’s only pupil (Lack, 2008: 10). His three publications in book form, for which he acted as publisher – the *Paradisus Londinensis*, Knight’s *Pomona Herefordensis*, and the *Pomona Londinensis* – show his address as 6 Frith Street in 1806; 75 John Street, Fitzroy Square in 1811; and 5 York Buildings, New Road, Marylebone in 1818.



Fig. 1. Apple 'Hawthornden', drawn by Hooker for the Horticultural Society, 1816.



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Fig. 2. Apple 'Hawthornden', from Hooker's *Pomona Londinensis*.

Hooker is first referred to in the minutes of the Society's Council in May 1807, when his bill for £25 1s. 6d. was approved. There is no record of his having been selected as an artist; it may be presumed that he was introduced to the Society by Salisbury. Other bills followed, including (in May 1811) a payment of £48 4s. 9d. for colouring plates – an indication that he was responsible, at least in the early years, for the hand-colouring of his plates in the *Transactions*. The plates were one of the major attractions of the *Transactions*, and newly elected Fellows had a tendency to purchase back numbers to make up their sets; in 1816 it was decreed that a stock of the plates should be kept available – 250 plain and 50 coloured – and the first volume was re-issued in what was called a second edition. The following year it was reported that the sale of the *Transactions* was very great, and that Hooker was being well paid for his work on colouring the new impressions. Only 14 plates bear Hooker's signature as artist (and another as engraver only), but he may have been responsible for others as well.

In April 1811 Hooker was elected as a Fellow of the Society; this was about the time that the publication of Thomas Andrew Knight's *Pomona Herefordiensis*, which he had illustrated, was completed, and his election may have been a testimony to the qualities of that work. In addition to the *Transactions*, he was from time to time commissioned to draw particular plants that were exhibited or described; in 1817, for example, he was commissioned to draw Scotch roses in various London gardens, and in 1821 the new primula that Captain Rawes had brought back from China (*Primula sinensis*), none of which were ever reproduced in the *Transactions*. In 1816 he made the first Royal Autographs – vellum sheets decorated with pictures of plants for royal patrons to sign. Beginning in that year he wrote four articles for the *Transactions*, all on fruits. His plates in the *Transactions* were regularly greeted with praise for his abilities, but as early as 1812 the Fruit Committee commended "Mr. WILLIAM HOOKER, whose great skill in his profession, and whose quickness in seizing the true characteristic marks of each tree or fruit, have been only surpassed, by the zeal, and diligence, which he has manifested in the pursuit" (Wilbraham, 1812: 62). He assisted, and occasionally substituted for, Joseph Sabine in examining and describing new fruits (Sabine, 1816: 217; Sabine, 1819: 397). In 1817 Salisbury could say that Hooker "knows Apples better than any of us" (Salisbury, 1817: 287).

Table 1. William Hooker's articles on fruit in the *Transactions*

Vol	Pages	Date	Title	Plate
II	250–51	1816	Account of a new pear... called Williams' Bon Chretien	Y
II	298–300	1817	An account of some specimens of apples which were imported this season by the Horticultural Society from Rouen in Normandy	
III	392–93	1819	Account and description of Wilmot's New Early Orleans plum	Y
IV	363–73	1820	Description of a mode of cultivating pines, as practised in the garden of Mr. Thomas Jenkins, F.H.S. at the Portman Nursery, New Road, Marylebone	

This promising career was curtailed by a mental breakdown, details of which are few. In January 1819 he was ill, and that summer he agreed to make enquiries about other artists who could take over from him. (No result was reported, but in April 1821 Elizabeth Francillon was paid for some unspecified work.) Hooker then disappeared from Council Minutes for a year and a half. In August 1822, he was instructing his apprentice, Samuel Galloway, to act on his behalf; in October it was reported that Hooker had returned home, and was able to work. In December, it was further reported that Hooker had guaranteed Galloway's expenses, with the interesting remark that "he was quite sane at the time". Whatever this tells us about his earlier condition, he evidently had a relapse, for in August 1823 Council learned that he had been "confined", and his effects had been sold, including a stock of plates for the *Transactions*. It had earlier been agreed that these plates were the Society's property (Council minutes, 4–16 May 1815), but this fact was apparently not made known to Hooker's custodians; Joseph Sabine tried to purchase them all, presumably at auction, but failed; but he was able to get 518 prints at a cost of £21 9s. 6d.

A paper by Robert Thompson, read to the Horticultural Society on 17 July 1832, refers to "the late Mr. WILLIAM HOOKER" (Thompson, 1832: 246); probably as a result, 1832 has usually been given as the date of Hooker's death. The minutes of Council, however, reveal that he had died at least six years earlier. The minutes for the meeting on 29 June 1826 contain

Table 2. Hooker's fruit plates in the Horticultural Society's *Transactions*

Subject	Cultivar	Volume & plate	Hooker drawings*
Apple	[Four New Seedling Apples] 'Breedon Pippin'; 'Lamb Abbey Pearmain'; 'Braddick Nonpareil'; 'Pitmaston Russet Nonpareil'	III: 10	
Apple	'Alexander'	II: 28 ter	IV: 1 [different]
Apple	'Baltimore'	III: 4	
Apple	'Gravenstein'	IV: 21	V: 3 [different]
Apple	'Ord'	II: 19	I: 2
Apple	'Spring Grove Codlin'	I: 12	
Cherry	'Black Eagle'	II: 9	I: 4
Cherry	'Florence'	II: 14	
Cherry	'Waterloo'	II: 21	
Grape	'Alexandrian Ciotat'	IV: 1	
Grape	'Black Corinth'	2nd ser. I: 9	VI: 8
Grape	'Esperione'	III: 2	III: 11
Grape	'Kishmish' [or 'Kishmush']	IV: 4	V: 10
Grape	'Pitmaston White Cluster'	III: 8	IV: 15
Grape	'Variegated Chasselas'	I: 15	
Grape	'Verdelho'	II: 8	
Longan	Fruit of the Longam [<i>sic</i>] (<i>Dimocarpus longan</i>)	II: 28 bis	
Loquat	Loquat (<i>Mespilus japonica</i>)	III: 11	
Melon	'Winter Melon'	III: 3 bis	

* Column 4 shows which fruits also appear in the Horticultural Society's fruit drawings. NB. Three of the plates are based on different drawings from those in the numbered series of fruit authentication drawings

Table 2. Hooker's fruit plates in the Horticultural Society's *Transactions* (cont.)

Subject	Cultivar	Volume & plate	Hooker drawings*
Nectarine	'Pitmaston Orange'	IV: 6	VI: 14
Peach	'Acton Scott'	II: 10	
Peach	'Braddick's American'	II: 13	
Peach	'Flat Peach of China'	IV: 19	
Peach	Mr Knight's new Peach, from an Almond	III: 1	
Pear	[Figures of two new Pears] The 'Forelle'; 'Bonne Malinoise'	V: 17	
Pear	[French Pears] 'Doyenné Gris'; 'Bezy de la Motte'; 'Orange d'Hiver'; 'Beurrée Rance'	V: 2	
Pear	'Elton'	II: 1	VI: 18 [different]
Pear	'Red Doyenné'	I: [13]	
Pear	'Seckle'	III: 9	VII: 8
Pear	'Williams' Bon Chrétien'	II: 16	
Plum	'Wilmot's New Early Orleans'	III: 14	V: 22
Strawberry	'Downton'	III: 15	V: 25
Strawberry	'Roseberry'	II: 27	III: 25
Strawberry	'Keens' [Seedling]'	II: 7	

the following passage: "Read a correspondence with Messrs Pinkett and Davis on behalf of the administrator of the late Mr Wm Hooker, relating to the account of the same with the Society" – and negotiations with his executors and his father over his unpaid fees carried on into the following year (Council minutes for 29 June 1826; 22 February, 17 May, 18 June, and 29 June 1827).

The fruit authentication drawings

On 17 May 1814, Council approved a suggestion that “it is expedient that the Society should possess a Collection of coloured drawings of the most approved Fruits in general...” A certain number of such drawings (not more than twenty, though the average number tended to be 25) was to be made annually, “uniform in size and plan to represent the mature fruit with a branch of the leaves of the Tree as well as sections of the Fruit, with the addition (in cases when it shall be of advantage) of a branch in the state of inflorescence”. This meant that the drawings had to be gradually worked on over the course of the year, and the year’s work was probably submitted in a single batch.

A committee was formed to supervise the fruit drawings programme, consisting of the President, Thomas Andrew Knight; the Treasurer, John Elliot; the Secretary, R. A. Salisbury; two other founder-members, Sir Joseph Banks and James Dickson; Thomas Cuffe (about whom little is known); the Cromwell Road nurseryman Joseph Kirke; William Padley, gardener at Hampton Court; the politician and book collector Roger Wilbraham; John Wilmot, the Isleworth market gardener; and Joseph Sabine, soon to become the Society’s Secretary, and one of the first to concern himself with the taxonomy of cultivated varieties.

A representative fruit drawing depicts the fruit as it is found on the plant, with a portion of the branch, leaves, and blossom; plus a cross-section of the fruit. Since the decision to initiate the project was taken in May 1814, and the drawings in the first volume are dated 1815, I infer that the fruits were drawn first, generally speaking in the autumn, and the details of flowers and foliage added the following spring. Altogether there are 137 fruit drawings signed by Hooker, and a certain number of unsigned ones that might also be his work; some drawings later in the sequence are unfinished.

The fruit drawings were regarded as one of the glories of the Society in its early years, and the preface to the third volume of *Transactions* (January 1820) drew attention to them:

The Collection of Drawings of Fruits, formed under the direction of a Committee, is already considerable, and by a perseverance in the plan proposed it will, ere long, surpass all others in point of numbers, as much as it already does in point of excellence. In justice they cannot



Fig. 3. Clockwise from top left. Apple 'Court of Wick Pippin': Hooker fruit drawing, 1816; *Pomological Magazine*, June 1828; *Pomona Londinensis*.

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omit to relate, that to the correct eye and skilful hand of Mr. WILLIAM HOOKER, the Artist regularly employed by the Society, they owe this invaluable assemblage, the importance of which, as standards of reference, will long be felt and acknowledged.

The production of fruit drawings continued after Hooker's collapse, and three other artists, whose work will be discussed below, were brought in in succession. Altogether ten volumes of drawings were compiled, nine devoted almost exclusively to fruit. In 1859, at a time of financial crisis, the Society's library was sold at auction, including all the drawings. Most, including Hooker's drawings of Scotch roses, have never returned, and it is to be hoped that they still survive somewhere out in the wider world. But in 1927 the fruit drawings were returned to the Society. E.A. Bunyard published an article in the *Journal* that year, giving a complete list of the drawings, so it will not be necessary to list them again here (Bunyard, 1927).

Hooker's collapse is reflected in the number of drawings completed. The totals per year are as follows: 25 in 1815, 1816, 1817, and 1818; 21 in 1819, with four unsigned and unfinished; 15 in 1820, with ten unsigned and unfinished; three in 1821, with some unsigned that might be attributed to him. The earliest of the unfinished drawings show the fruits complete, but lack the flowers; in 1820, portions of some of the drawings are left in pencil outline; in one very interesting case, a drawing of the 'Little Muscat' pear, all the elements of the drawing are there, but some of the pears on the branch have been left uncoloured. Some of the drawings in 1821 are so incomplete that they furnish too little stylistic evidence to be confidently attributed to Hooker.

In his engravings for Knight's *Pomona Herefordiensis* Hooker used a mixture of mezzotint and aquatint; with the *Transactions* aquatint was his favoured method. Gradually, in the later years of the fruit drawings, his style developed: he began introducing a form of stippling into his rendering of colour, which at times – when a rather monochrome colouring of the fruit allowed – virtually took the place of brushstrokes. He also began using touches of gum arabic to make the depicted fruit (grapes especially) shine, and the colour difference between the upper and lower surfaces of leaves became more emphatic. If he had continued his work into the 1820s, he might have moved in the direction of his successors, with a greater exploration of contrasts of colour and shade (see below).

The *Pomona Londinensis*

In 1818 a volume of descriptions and depictions of fruits was published under the title *Pomona Londinensis: containing Colored Engravings of the most esteemed Fruits Cultivated in the British Gardens, with a Descriptive Account of each Variety*. The authorship statement reads: “By William Hooker, F.H.S. Assisted in the descriptive part by the President and Members, and sanctioned by the patronage of the Horticultural Society of London.” Despite this statement, and Hooker’s dedication of the work to the Society, it is not referred to in Council minutes. The preface refers to the author in the third person, with no reference to the execution of the plates; this fact, and the rhetoric of the preface, suggest strongly that Salisbury was the principal author of the text, despite the author’s address as shown on the title-page being Hooker’s.

The work, of which only the first volume was published, contains 49 plates; 38 of them depict fruits also treated in the fruit authentication drawings, but generally without all the detail of the original drawing (e.g. flowers omitted). In some cases the images are different, with the authentication drawing made later. The preface emphasises that the work was intended to promote the best fruits rather than to be comprehensive in its coverage: “Of the plan of this POMONA... the professed object of the Author is, to select from, rather than add to, our already too extensive assortment of fruits, those which possess distinguished merit.” The sources of the fruits illustrated are specified in most cases, and yield the following totals:

Thomas Andrew Knight and/or the Horticultural Society (4).

Gentlemen and amateur growers: D. Beale of Edmonton (3), Benjamin Bousfield of Twickenham (1), John Braddick of Maidstone (2), Edward Hawthorn of Marsh Gate, Richmond (1), J. Heaslar of Paddington (1), Charles Hick of Highgate (1), George Owen of Camberwell (1); John Trevelyan of Wallington, Northumberland (1); J.R. Wheeler of Gloucester Place (3); Roger Wilbraham (1).

Nurserymen: Joseph Kirke, of Cromwell’s Garden Nursery, Kensington (4); Hugh Ronalds of Brentford (1); Ross of the Caledonian Nursery, Stoke Newington (1); John Wilmot of Isleworth (3).

Botanical institutions: Kew, superintendent W.T. Aiton (1); Hampton Court, head gardener Padley (11); Isaac Swainson's private botanic garden at Twickenham, in most cases as managed by his successor Canham (3).

Hampton Court easily led the field, functioning as it did as the royal kitchen garden. But since not only the nurseries but also several of the gentleman amateurs were engaged in the business of breeding new varieties, the list testifies to the interest in fruit culture in the early nineteenth century, extending down as far as a suburban villa owner in Paddington (Mr Heaslar of Alpha Cottages).

The later history of the fruit drawings

With Hooker no longer functioning as a fruit artist, the programme of depicting fruits did not wind down. A successor was found in the otherwise undocumented Charles John Robertson, who produced 27 drawings done mostly between 1820 and 1822, but with two later drawings in 1824 and 1825. Robertson made five plates for the *Transactions*, three of them of fruits; of these, only strawberry 'Wilmot's Superb' (vol. 6) is based on a fruit authentication drawing.

In 1822 the excellent Barbara Cotton contributed eight drawings of apples and peaches, which are stunning in their virtuosity but unfortunately were never published. (None of the three plates she contributed to the *Transactions* was of a fruit.) Finally, Augusta Innes Withers contributed twelve drawings in 1825–26, and 13 plates for the *Transactions*; eight of these plates correspond to drawings in the authentication series. After that there were no more commissions of fruit portraits.

The drawings of all three artists moved beyond Hooker's example in their treatment of colour and the texture of plant surfaces. Robertson, and to a greater extent Withers, made an expressive use of chiaroscuro, heightening the depiction of leaf veins and using gum arabic to render gloss. Cotton used grey tones to make the underside of leaves more emphatically different from the upper surface; her treatment of fruit surfaces required the opposite of shine, and no one has ever captured the bloom on the skin of a peach as well as she did.



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Fig. 4. Plum 'Purple Gage', from *Pomological Magazine*, July 1830.

Table 3. The plates in the *Pomona Londinensis*

Plate no.	Subject	Volume & plate Hooker drawings*
1	Nectarine 'Elruge'	III 16
2	Peach 'La Noblesse'	
3	Apple 'Ribston Pippin'	II 7
4	Plum 'Imperatrice'	II 23
5	Pear 'True St Germain'	
6	Pear 'Wormsley Bergamot'	
7	Cherry 'Elton'	III 7
8	Peach 'Galande'	V 15
9	Apricot 'Moor Park'	I 3
10	Grape 'Raisin de Carmes' [= 'Raisin de Cabo']	I 11
11	Pear 'Chaumontel'	IV 20
12	Apple 'Scarlet Nonpareil'	II 6
13	Apple 'Devonshire Quarenden' [sic] [or Sack Apple]	
14	Plum 'Coe's Golden Drop'	IV 23
15	Nectarine 'Violet Hâtive'	III 17
16	Peach 'La Bourdine'	
17	Pear 'Gansel's Bergamot'	II 21
18	Pear 'Aston Town'	IV 19
19	Pear 'Colmart'	III 18
20	Apple 'Kerry Pippin'	IV 4
21	Apple 'Yellow Ingestrie Pippin'	
22	Apple 'Wormsley Pippin'	VI 4
23	Peach 'Neal's Early Purple'	
24	Plum 'Catharine'	I 20

* Column 3 shows which plates depicted plants also shown in the Horticultural Society's fruit drawings

Table 3. The plates in the *Pomona Londinensis* (cont.)

Plate no.	Subject	Volume & plate Hooker drawings*
25	Gooseberry 'Wilmot's Early Red'	II 13
26	Apple 'Hughes' New Golden Pippin'	I 1
27	Pear 'Brown Beurrée'	I 161
28	Cherry 'May Duke'	
29	Nectarine 'Vermash'	I 13
30	Nectarine 'White'	IV 18
31	Cherry 'Black Circassian'	
32	Apple 'Court of Wick Pippin'	II 1
33	Apple 'Margil'	II 5
34	Plum 'Précoce de Tours'	I 22
35	Pear 'Crasanne'	I 17
36	Currant 'White Dutch'	I 6
37	Raspberry 'Yellow Antwerp'	I 24
38	Plum 'Green Gage'	I 21
39	Plum 'Nectarine'	III 23
40	Apple 'Syke House'	II 9
41	Peach 'Grimwood's Royal George' [or 'Gross Mignonne']	II 19
42	Apple 'Robinson's Pippin'	II 8
43	Apple 'Fearn's Pippin'	II 2
44	Apple 'Hawthornden'	II 3
45	Grape 'Black Prince'	I 9
46	Cherry 'Bigarreau'	III 6
47	Plum 'La Royale'	
48	Strawberry 'Wilmot's Late Scarlet'	
49	Nut 'Cob' or Cob Nut	II 18

The probable reason for the discontinuation of the fruit portrayals was the fact that the Society now had its own garden at Chiswick, with a growing collection of fruit trees. The first catalogue of the fruit collection was published in 1826, with Robert Thompson, the curator of the fruit department, assigning correct names to the different varieties and indicating which names should be treated as synonyms. 3825 cultivars were listed, and in some cases the reduction through synonymy was severe, most extremely in the case of nectarines, where 176 varieties were reduced to nineteen. I suspect that once one could walk out into the garden at the appropriate season and examine the fruit itself, the motive for painting the fruit dwindled; Thompson's results showed that the practical purpose behind the authentication drawings could be more than adequately met by a collection of the fruits themselves. Besides, both Robertson and Withers charged high prices, leading Council in one case to decline one of the former's drawings (Council minutes, 17 November 1819; 2 December 1825).

Lindley's *Pomological Magazine*

It is worth saying more about Mrs Withers, for she was the artist for the other major illustrated fruit publication associated with the Horticultural Society: the *Pomological Magazine*.

The principal biographical treatment of her, by the late Audrey Le Lievre, says: "Born Augusta Hanna Elizabeth Innes Baker in 1792, she was the daughter of the Rev. William Baker, who was incumbent of the parish of Stonehouse and Dowdesdwell in Gloucestershire, and one of the Prince Regent's many chaplains" (Le Lievre, 1989: 66). Her death certificate gives her second name as Joanna: "Hanna" may be a misreading of a flowery script. She married Theodore Withers before 1825, the year in which she first made drawings for the Society. In 1830 she was appointed Flower Painter in Ordinary to Queen Adelaide, and soon after began to teach painting professionally. J. C. Loudon drew attention to this in a note in his *Gardener's Magazine* for 1831:

To be able to draw Flowers botanically, and Fruits horticulturally, that is, with the characteristics by which varieties and subvarieties are distinguished, is one of the most useful accomplishments of young ladies of leisure, living in the country. It is due to Mrs. Withers of

Grove Terrace, Lisson Grove, to state that her talents for teaching these objects are of the very first order, as many of the plates in the *Transactions of the Horticultural Society* and the *Pomological Magazine* abundantly show (vol. 7: 95).

In addition to the Horticultural Society's publications, she produced illustrations for Bateman's *Orchidaceae of Mexico and Guatemala* (1837–43), Robert Thompson's *Gardener's Assistant* (1859), and Henderson's *Illustrated Bouquet* (1857–64). Her last years, however, were dismal, marred by poverty. "Being a gentlewoman", Le Lievre says, "she did not approach the Artists' Benevolent Foundation or the Artists' General Benevolent Institution for relief, but instead petitioned Queen Victoria" (Le Lievre, 1989: 68). As a result her old appointment of Flower Painter in Ordinary to the Queen was revived, but did not bring great financial advantage. Published dates for her death vary considerably. The year 1869, sometimes given as the year of her death, Le Lievre gives as the date of her husband's death; 1864, also often quoted as her death date, may have arisen from a misreading of 1869. Her death certificate (Holborn district) gives her date of death as 11 August 1876, her place of death St Luke's Hospital, and her age 85.

John Lindley and Robert Thompson, having dealt with Mrs Withers as an artist, employed her to produce the illustrations for an independently published work on fruit cultivars, entitled the *Pomological Magazine*. The last dated drawings in the fruit authentication sequence were made in 1826, and work on the *Magazine* must have begun soon after, for the illustrations continued the format of fruit and flower together, and the first part appeared in November 1827. Published in monthly parts with four plates per part, the series was brought to a close in December 1830, with a total of 152 plates. The preface described the object of the work as "firstly, to make the Public accurately acquainted with those varieties of Fruit which are of sufficient importance to deserve cultivation in Great Britain; and secondly, to reconcile the discordant nomenclature of nurserymen and other cultivators". That second aim places the *Magazine* as continuing the work of the fruit authentication drawings; the first aim gives a somewhat broader view of cultivation than Salisbury's desire to promote only the best cultivars in the *Pomona Britannica*.



Fig. 5. Gooseberry 'Compton's [sic] Sheba Queen', drawn by Withers for the Horticultural Society, 1825.



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Fig. 6. Gooseberry 'Crompton's Sheba Queen', *Pomological Magazine*, 1828.

The *Magazine* closed at the end of its third volume; a final preface, evidently contributed by Lindley, gave reasons:

This Work was originally commenced by two Officers of the Horticultural Society, in the hope of protecting the public, by means of accurate figures and descriptions, from the evil of making injudicious selections of Fruit-trees when planting Gardens; and of enabling purchasers to judge, when their trees arrived at a bearing state, whether the varieties that had been sold them were genuine or not...

Various causes have, however, induced that one of the Editors, upon whom at all times the greater part, and latterly the whole, of the labour of conducting the Work has fallen, to suspend it for the present, with the Third Volume, and the 152d Plate; with the intention, however, of resuming it whenever circumstances shall justify his doing so.

The *Pomological Magazine* was published by James Ridgway, probably the most eminent and satisfactory publisher of botanical colour-plate works at the time, with the works of Robert Sweet and the *Botanical Register*, which Lindley was currently editing, in his stable. Lindley took advantage of this quasi-independent status to aim a little shaft at his employer, Thomas Andrew Knight, whose theory of the inherent life-span of cultivated varieties had been publicised through the Horticultural Society's publications:

Those who read the account of the age of the parent tree of this excellent sort, and who express themselves in regard to it as being the best fruit of Apple kings, need not be alarmed at the statement of the old tree being in a state of decay, and producing latterly but sparingly, and the fruit becoming smaller than some had recollected to have seen it. Young trees may be found, free from canker, growing vigorously, and producing fruit perhaps superior to that ever produced on the original.

Are all sorts of trees equally subject to canker? – Some are more so than others. Do young trees, or seedlings lately raised, never canker? – Some of them will. The canker, therefore, does not depend entirely on the age of the variety. The nature, or the original constitution of the tree, or the quality of its sap or juices, is perhaps more the cause than

its age. Soil and situation, if unfavourable, will stamp the symptoms of decay in a few years.

There are no records to state the fact of any variety, worth cultivating, having *ceased to be*.

An *annual* plant, raised from seed this season, might henceforth be continued, by cuttings, so long as the earth and the elements continue nearly in the same state. Whether a *tree* may be also so continued, may be inferred (Lindley 1827–30: III 141).

All the plates in the *Pomological Magazine* are by Mrs Withers, apart from five by Charles M. Curtis.

Only one of the illustrations in the *Pomological Magazine* deals with the same subject as one of Mrs Withers' fruit drawings, but the engraving was based on a completely different drawing. The subject was a gooseberry which was identified on the 1825 authentication drawing as 'Compton's Sheba Queen', but in the *Magazine* (1828) the name was corrected to 'Crompton's Sheba Queen'. The engraving is of excellent quality as an engraving, but suffers badly in comparison with Mrs Withers' earlier drawing. Ruskin has a famous passage about the impossibility of conveying the light of nature in art: having said in the first volume of *Modern Painters* that "nature surpass[es] us in power of obtaining light as much as the sun surpasses white paper", he expanded in the fourth volume by saying:

Therefore the highest light an artist can ordinarily command for his work is that of white paint, or paper... And yet to express all this, we have but our poor white paper after all. We must not talk too proudly of our "truths" of art.¹

The two versions of Gooseberry 'Crompton's Sheba Queen' illustrate perfectly what Ruskin was talking about. In the *Pomological Magazine*

¹ The texts quoted come from *Modern Painters*: the first from part 2, "Of truth", section 2, chapter 1, "Of truth of tone" (1843); the second from part 5, "Of mountain beauty", chapter 3, "Of Turnerian light" (1856).

engraving, the white highlight on the gooseberry is represented by a gap in the colouring of the white paper. In the 1825 drawing, the highlight is depicted with an extraordinary translucency which suggests the use of a white underlay, almost enamel-like in its brightness, lightly washed with the yellowish green used for the skin. I know of no other botanical illustration which captures so well the quality of a translucent skin. (Hooker's gooseberry drawings are pallid by comparison: his highlights are the tone of the underlying paper.)

The *Pomological Magazine* was never resumed; but in 1841 it was re-issued as a three-volume book with the new title *Pomologia Britannica*.

Table 4. The plates in the *Pomological Magazine*

Volume	Plate	Subject	Cultivar	Date
III	133	Apple	'Adams's Pearmain'	August 1830
II	85	Apple	'Barcelona Pearmain'	August 1829
II	82	Apple	'Beachamwell Seedling' Apple [= 'Beachamwell']	July 1829
I	28*	Apple	'Blenheim Pippin' [= 'Blenheim Orange']	May 1828
I	10	Apple	'Borovitsky' [= 'Duchess of Oldenburg']	January 1828
III	121	Apple	'Bowyer's Russet'	May 1830
III	124	Apple	'Brickley Seedling'	May 1830
II	77	Apple	'Canadian Reinette' [= 'Reinette du Canada']	June 1829
III	136	Apple	'Cockle Pippin'	August 1830
III	104	Apple	'Cole' Apple	December 1829
II	58	Apple	'Cornish Aromatic'	January 1829
III	140	Apple	'Cornish Gilliflower'	September 1830
I	32*	Apple	'Court of Wick Pippin' [= 'Court of Wick']	June 1828
II	66	Apple	'Courtpendu' [= 'Court Pendu Plat']	March 1829
II	94	Apple	'Devonshire Quarrenden'	October 1829
III	113	Apple	'Downton Pippin'	March 1830
II	84	Apple	'Dutch Mignonne'	July 1829
I	46	Apple	'Early Red Margaret' [= 'Margaret']	September 1828
II	67	Apple	'Fearn's Pippin'	March 1829
II	89	Apple	'Forman's Crew'	September 1829
III	137	Apple	'Franklin's Golden Pippin' [= 'Franklyn's Golden Pippin']	September 1830

NB. Plates marked with an asterisk (*) are by Charles M. Curtis; the remainder are by Augusta Innes Withers

Table 4. The plates in the *Pomological Magazine* (cont.)

Volume	Plate	Subject	Cultivar	Date
I	39	Apple	'Golden Harvey'	August 1828
II	69	Apple	'Golden Reinette'	April 1829
III	98	Apple	'Gravenstein'	November 1829
III	152	Apple	'Gray French Reinette' [= 'Reinette Franche']	December 1830
I	34	Apple	'Hawthornden'	July 1828
II	53	Apple	'Hoary Morning'	December 1828
I	27	Apple	'Hubbard's Pearmain'	May 1828
III	132	Apple	'Hughes's Golden Pippin'	July 1830
III	100	Apple	'Irish Peach'	November 1829
III	107	Apple	'Kerry Pippin'	January 1830
III	117	Apple	'King of the Pippins'	April 1830
I	37	Apple	'Lemon Pippin'	August 1828
II	63	Apple	'Longville's Kernel'	February 1829
III	109	Apple	'Lucombe's Seedling'	February 1830
I	36	Apple	'Margil'	July 1828
II	79	Apple	'Martin Nonpareil'	June 1829
III	144	Apple	'Newtown Spitzenberg'	October 1830
II	86	Apple	'Old Nonpareil' [= 'Nonpareil']	August 1829
I	5	Apple	'Oslin'	December 1827
III	151	Apple	'Padley's Pippin'	December 1830
III	123	Apple	'Red Astrachan'	May 1830
I	17*	Apple	'Red Ingestrie'	March 1828
III	141	Apple	'Ribston Pippin'	October 1830
II	90	Apple	'Ross Nonpareil'	September 1829
III	125	Apple	'Royal Russet'	June 1830
III	145	Apple	'Saint Julian'	November 1830

Table 4. The plates in the *Pomological Magazine* (cont.)

Volume	Plate	Subject	Cultivar	Date
III	130	Apple	'Sam Young'	July 1830
II	87	Apple	'Scarlet Nonpareil'	August 1829
II	62	Apple	'Scarlet Pearmain'	February 1829
I	3	Apple	'Sugar-loaf Pippin'	November 1827
II	50	Apple	'Summer Golden Pippin'	November 1828
III	116	Apple	'Summer Pearmain' [= 'Royal Pearmain']	March 1830
II	81	Apple	'Sykehouse Russet'	July 1829
II	96	Apple	'White Astracan' [= 'White Astrachan']	October 1829
III	110	Apple	'White Spanish Reinette'	February 1830
II	80	Apple	'Wormsley Pippin'	June 1829
III	146	Apricot	'Breda'	November 1830
I	11	Apricot	'Hemskirke'	January 1828
III	142	Apricot	'Large Early'	October 1830
I	13	Apricot	'Roman'	February 1828
I	25	Apricot	'Turkey'	May 1828
I	2	Apricot	'Royal'	November 1827
I	42	Cherry	'Belle de Choisy'	September 1828
III	127	Cherry	'Black Eagle'	June 1830
I	44	Cherry	'Black Tartarian'	September 1828
III	138	Cherry	'Downton'	September 1830
II	92	Cherry	'Elton'	September 1829
II	93	Cherry	'Knight's Early Black'	October 1829
I	45	Cherry	'May Duke'	September 1828
III	115	Cherry	'Waterloo'	March 1830
I	43	Currant	'Black Naples'	September 1828

Table 4. The plates in the *Pomological Magazine* (cont.)

Volume	Plate	Subject	Cultivar	Date
I	48	Fig	'Brunswick'	October 1828
II	70	Filbert	'Frizzled'	April 1829
I	12	Gooseberry	'Crompton's Sheba Queen'	January 1828
I	22	Gooseberry	'Early Green Hairy'	April 1828
I	21	Grape	'Cambridge Botanic Garden'	April 1828
I	18*	Grape	'Common Muscadine'	March 1828
III	149	Grape	'Horsforth Seedling'	December 1830
II	56	Grape	'Miller's Burgundy'	December 1828
II	68	Nectarine	'Violet'	March 1829
I	40	Nectarine	'White'	August 1828
II	49	Nectarine	Common 'Elruge'	November 1828
II	55	Nut	'Cosford'	December 1828
III	147	Peach	'Barrington'	November 1830
I	26	Peach	'Bellegarde'	May 1828
I	9	Peach	'Catharine'	January 1828
II	61	Peach	'Chancellor'	February 1829
III	105	Peach	'George the Fourth'	January 1830
I	23*	Peach	'Grosse Mignonne'	April 1828
I	30	Peach	'Madeleine de Courson'	June 1828
I	15	Peach	'Malta'	February 1828
II	95	Peach	'Noblesse'	October 1829
II	54	Peach	'President'	December 1828
III	119	Peach	'Royal George'	April 1830
II	73	Peach	'Royal'	May 1829
III	97	Peach	'Spring-Grove'	November 1829
III	139	Pear	'Aston Town'	September 1830

Table 4. The plates in the *Pomological Magazine* (cont.)

Volume	Plate	Subject	Cultivar	Date
III	120	Pear	'Autumn Bergamot' [= 'Bergamotte d'Automne']	April 1830
III	118	Pear	'Belle et Bonne'	April 1830
II	83	Pear	'Beurré d'Aremberg'	July 1829
I	19	Pear	'Beurré Diel'	March 1828
III	131	Pear	'Beurré Diel' (from a standard)	July 1830
II	88	Pear	'Beurré Rance'	August 1829
III	143	Pear	'Bezy de la Motte'	October 1830
III	114	Pear	'Brown Beurré'	March 1830
II	59	Pear	'Capiaumont'	January 1829
II	76	Pear	'Dutchess [sic] of Angoulême'	May 1829
III	101	Pear	'Early Bergamot'	December 1829
II	78	Pear	'Easter Beurrée'	June 1829
III	128	Pear	'Flemish Beauty'	June 1830
III	112	Pear	'Forelle'	February 1830
I	35	Pear	'Gansel's Bergamot'	July 1828
II	65	Pear	'Gilogii'	March 1829
II	74	Pear	'Gray Doyenné'	May 1829
III	108	Pear	'Jargonelle'	January 1830
I	41	Pear	'Long-stalked Blanquet'	September 1828
II	51	Pear	'Madeleine'	November 1828
III	122	Pear	'Marie Louise'	May 1830
II	75	Pear	'Napoleon'	May 1829
II	64	Pear	'Passe-Colmar'	February 1829
II	71	Pear	'Princess of Orange'	April 1829
II	72	Pear	'Seckle'	April 1829
I	14	Pear	'Summer Bonchretien'	February 1828

Table 4. The plates in the *Pomological Magazine* (cont.)

Volume	Plate	Subject	Cultivar	Date
III	106	Pear	'Summer Francréal'	January 1830
III	102	Pear	'Summer Rose'	December 1829
II	60	Pear	'White Doyenné'	January 1829
III	126	Pear	'Winter Nelis'	June 1830
I	29	Pineapple	'Otaheite'	June 1828
III	134	Pineapple	'Ripley'	August 1830
I	1	Pineapple	'Waved-leaved'	November 1827
II	57	Plum	'Coe's' [= 'Coe's Golden Drop']	January 1829
I	33	Plum	'Imperatrice'	July 1828
III	150	Plum	'Isabella'	December 1830
III	111	Plum	'Kirke's' [= 'Kirke's Blue']	February 1830
III	99	Plum	'Lucombe's Nonsuch'	November 1829
I	6	Plum	'Mimms'	December 1827
III	103	Plum	'Morocco'	December 1829
III	148	Plum	'Nectarine'	November 1830
III	129	Plum	'Purple Gage'	July 1830
I	16	Plum	'Washington'	February 1828
I	38	Plum	'White Imperatrice'	August 1828
I	8	Raspberry	'Barnet'	December 1827
I	24	Raspberry	'Red Antwerp'	April 1828
II	52	Strawberry	'Downton'	November 1828
III	135	Strawberry	'Elton Seedling'	September 1830
I	7	Strawberry	'Grove-End Scarlet'	December 1827
II	91	Strawberry	'Keens' Seedling'	September 1829
I	47	Strawberry	'Old Pine', or 'Carolina'	1828
I	31	Strawberry	'Prolific Hautbois'	June 1828
I	4	Strawberry	'Sweet Cone'	November 1827
I	20	Strawberry	'Black Roseberry'	March 1828

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