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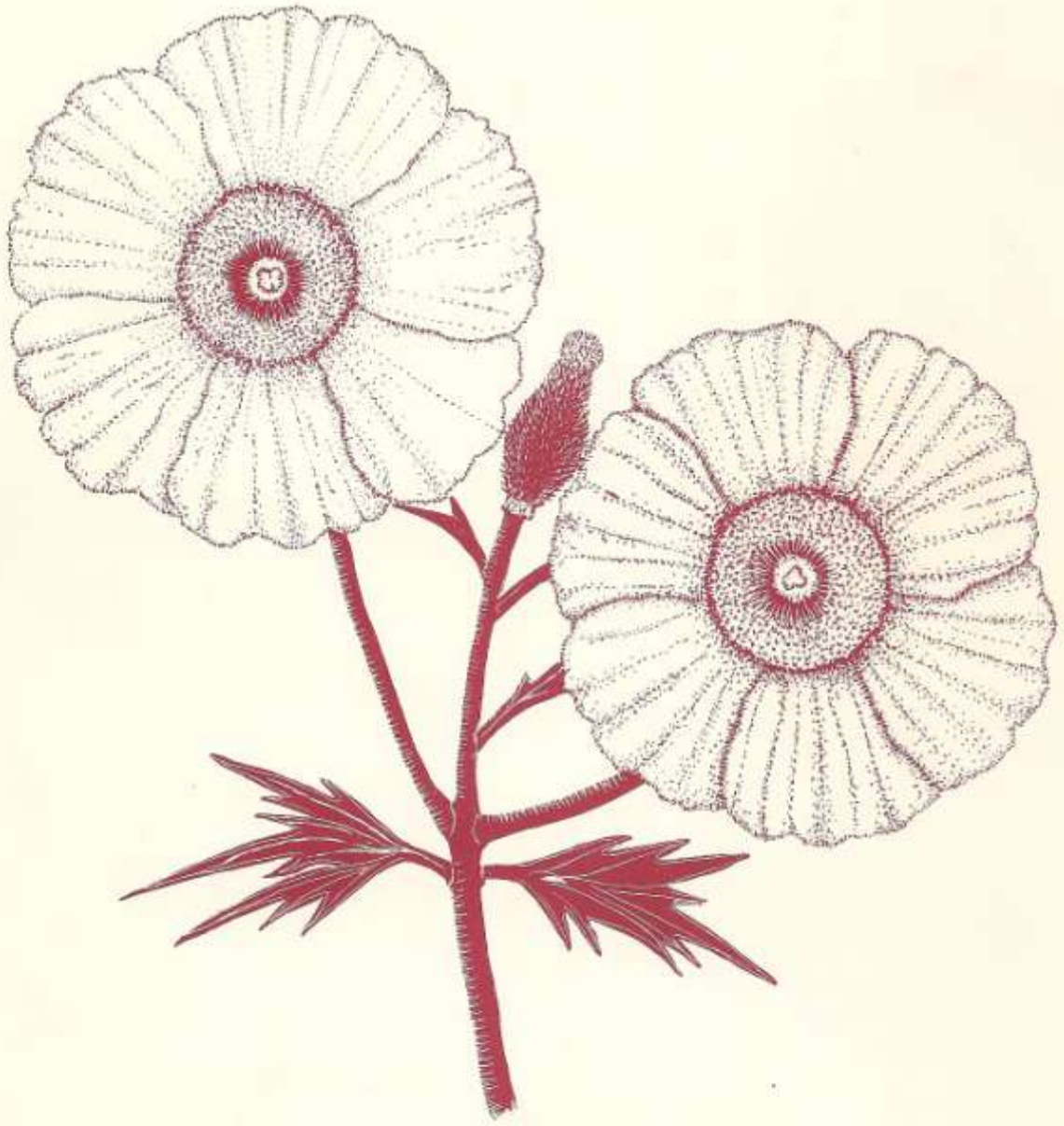
The Journal of The Irish Garden Plant Society

Vol 3



The Irish Garden Plant Society was formed in 1981 to assist in the conservation of garden plants, especially those raised in Ireland. It also takes an interest in other aspects of the preservation of Ireland's garden heritage.

This journal will be devoted to papers on the history of Irish garden plants and gardens, the cultivation of plants in Ireland, the taxonomy of garden plants and reports of work carried out by the society and its individual members.

The editorial committee would welcome manuscripts from members of the society and others. Typescripts should be on A4 paper, double-spaced and typed only on one side of each sheet.

Correspondence concerning the Irish Garden Plant Society, including applications for membership, may be addressed c/o National Botanic Gardens, Glasnevin, Dublin 9, Republic of Ireland, or to Dr. D. Willis, c/o New University of Ulster, Coleraine, Northern Ireland.

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Front Cover - *Romneya coulteri* by Dr. Norman Hickin.

Irish Garden Plant Society
Dublin

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MISS ELLEN HUTCHINS (1785-1815) AND THE GARDEN AT ARDNAGASHEL, BANTRY, COUNTY CORK.

By JOHN BEVAN
46 Foyle Road, Fairview, Dublin 3.

Ardnagashel is a very old garden with a long history. It is situated near the coast, mid-way between Glengarriff and Bantry in south-west Cork. The garden lies on the north-eastern shore of Bantry Bay, facing the northern tip of Whiddy Island.

Ardnagashel House itself is about half a mile from the main road, and is sheltered from the prevailing south-westerly winds by Hill 203 (Fig. 3) and by the extensive plants of fir and beech along the shore of the bay. West of the house is a stream that flows into the sea; part of this stream was diverted because a waterfall interfered with the sleep of the Hutchins family, and it now flows round the garden.

The rainfall in this region is high, with an average annual precipitation of 1,500 mm, falling mostly from September to March. South-west Cork has an average annual temperature of 10°C (51°F), about 1°C higher than Dublin. However the coastal strip, including Ardnagashel, would have an even higher (perhaps 1°C higher) mean annual temperature. An average of 10 days of frost is recorded on the coast, compared, for example, with Tullamore which has 50 days of frost in a year. This region is very windy; wind velocity ranges from 65 to 80 m.p.h., but higher readings have been recorded. Average relative humidity is also high, ranging from 75% to 80%.

With shelter provided on virtually all sides, there are many advantages for growing plants in this area. The high rainfall, bright sunshine, high relative humidity and frost-free days from early March to near the end of December, mean that growth conditions are ideal. Most of the trees and shrubs at Ardnagashel are larger than specimens of comparable age in Dublin, and many tender plants can be grown outside, whereas in Dublin they are kept in a glasshouse.

ARDNAGASHEL - HISTORY AND OWNERSHIP

To understand Ardnagashel's history, one must go back to the time when the O'Sullivan clans were overlords of what is now called West Cork. In their possession the land was subject to a system of inheritance called *Gavail Ciain*, succession from father to son. After the Elizabethan wars the area settled down under Owen O'Sullivan who had taken the Queen's side, but during the 1642 Rebellion, either he or his successor fell into disfavour and his lands were confiscated. After the Cromwellian conflict, the O'Sullivan land in the Bantry area was divided between three adventurers who had enlisted, with a promise of payment by land, and this later created a very complicated system of land tenure under sub-tenants.

The Hutchins family from Dorset appear to have been in Ireland from early in the seventeenth century, according to *Burke's Landed Gentry* (1958). Richard Hutchins served under the Earl of Orrery in 1666, and became one of the Commissioners of Poll Tax. He owned property at Blackrock, near Bantry, during the eighteenth century. Arthur Hutchins (1770-1838) bought

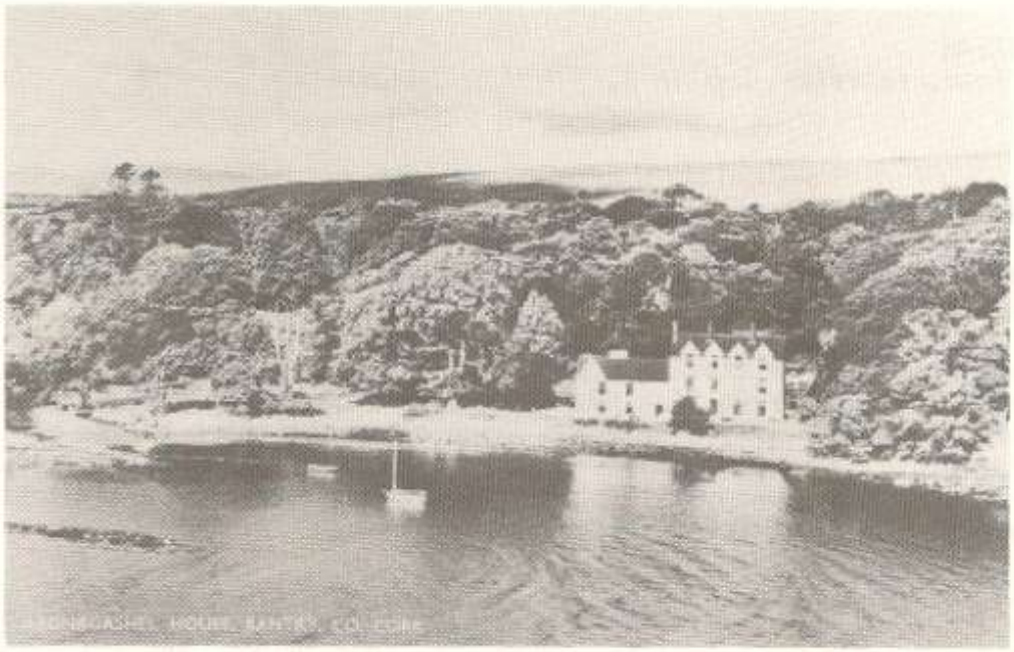

Fig. 1. Ardnagashel House about 1950.

Fig. 2. View from 'Hill 203' in 1982.

Ardnagashel freehold for £1,000 in 1800; it comprised three hundred acres. He proceeded to lay out the estate; pasture land and plantations were included. He probably constructed the ornamental arch which marks the entrance to the property, and also the avenue to the seashore. The fisherman's cottage was rebuilt as a beautiful mansion with mullion windows. Arthur Hutchins put in the stone drains which have assisted in preventing the sort of erosion that is evident in so many other places around Bantry.

One of his problems was the protection of young plants, including plantation trees, from cattle, both his own and those of other people. Enormous walls were built, both to clear and protect the land. Local tradition has it that in exposed areas west of the house, the young trees failed until others were planted to give shelter. A few of these trees, mostly firs, are still there protecting the valley in which many rare trees and shrubs have been growing since Arthur Hutchins' time.

Emmanuel Hutchins (1769-1839), Arthur's brother, practised law. He died mysteriously in Damascus while purchasing Arab horses which his groom brought back to Ireland.

Ellen Hutchins (1785-1815), a sister of Arthur and Emmanuel, was a famous amateur botanist - I will refer to her later. Her interest in botany was later carried on by other members of the family, and many specimens of trees and plants in the present gardens came from Kew. There is a Cedar of Lebanon which might have come back with one of the family from the Middle East.

Samuel Hutchins (1834-1915) went to Australia during the 'gold rush' and returned to Ireland in 1858 with over one hundred packets of seeds of Australian plants. No plant books or records were kept by the family, but it would be interesting to visit the property 'Fortlands' near Charleville, which belonged to his father, as there are a number of trees and shrubs there that may have links with those planted at Ardnagashel.

Samuel was a younger son, and succeeded his brother Emmanuel (1823-1880), who was buried in the 'Chillin' or family graveyards on the estate. This is an interesting feature of the property and some of the burial stones can still be seen.

Eventually Samuel Hutchins was succeeded by Captain Richard N. Hutchins (1876-1915). He was followed in turn by his son, who eventually passed the property to his sister Patricia Hutchins, a writer, who still resides on part of the estate. The other part of the land was sold in 1947 to Col. and Mrs. Kaulback who changed the house into a hotel and renovated the grounds. They planted extensively. The hotel was destroyed in a fire in 1958, but was later rebuilt as a private dwelling. In 1970 the part of the estate owned by the Kaulbacks was sold to a Dutch company, which planned an elaborate holiday complex. The future of Ardnagashel is in its control.

MISS ELLEN HUTCHINS

Ellen was born in 1785 at Ballylickey, the daughter of Thomas Hutchins. When she was still young she was placed in a school in Dublin. As she grew up she became delicate and when her school days ended, her health was poor. Dr. Whitley Stokes, a friend of the family, was consulted and it was decided that Ellen was to be left in his care.

She recovered but before leaving Dr. Stokes, who was a fellow of Trinity College, Dublin, and a keen naturalist, was advised to live in the open air as much as possible. Thus, with his help, she took up the study of natural history. He recommended botany, as this would encourage her to spend much time out-of-doors, and would give her a quiet and interesting occupation at home. She became an enthusiastic collector of mosses, liverworts, lichens and algae, and was the discoverer of many rare species in the area around Ardnagashel.

It is probable that Dr. Stokes introduced Ellen to James Townsend Mackay, curator of Trinity College Botanic Garden. Through Mackay she met Dawson Turner of Yarmouth, to whom, by 1807, she was supplying specimens and drawings of seaweeds for his book, *Historia fucorum*. Most of her dried plant specimens, together with a series of drawings numbering over two hundred, passed to Dawson Turner, and are now in the safe-keeping of the Royal Botanic Gardens, Kew. A trait in her character was her natural modesty, so much so, that for some time she objected to her name being published as collector of the plants she discovered.

Ellen had to return home to Ballylickey to care for her elderly mother and her invalid brother. A field at Ballylickey, still called "Miss Ellen's Garden", is perhaps where she tended her plants including those sent to her by Mackay. In a letter in 1805, Turner instructed her how to prepare a bed for planting some shrubs he had sent her. Mackay visited Ballylickey in 1805, as he was preparing publications on Irish plants, but the discovery of the wild plants of the Bantry area was left to the dedication and keen eye of Ellen Hutchins. This she accomplished, and Sir James Smith wrote that "she could find anything".

In March 1814, Ellen's mother died and Ellen went to Ardnagashel where her brother Arthur and his family lived. She died on 10 February 1815 and is buried in the churchyard in Bantry.

It is very difficult to know where to start as regards her work. She never published papers, so all her discoveries are noted in the works of other botanists. For example, Mackay in *Flora Hibernica* (1836) recorded *Stellaria cerastoides* 'on a high mountain near Bantry, rare, Miss Hutchins'. In the section on liverworts we find '*Jungermannia hutchinsiae* - on wet faces of rocks especially of waterfalls in woods near Bantry, Miss Hutchins'. The lichens, *Lecania hutchinsiae*, *Pertusaria hutchinsiae*, *Enterographa hutchinsiae* and others, as well as the moss *Ulota hutchinsiae* commemorate her and were discovered by her.

Miss Hutchins' best work was in collecting seaweeds. The section on seaweeds in Mackay's flora was undertaken by William Henry Harvey, the famous Irish phycologist. Mackay stated that Harvey saw "a full collection in my possession, chiefly formed by the late amiable and accomplished Miss Hutchins, a lady who for many years was unremitting in her investigations of the botany of the south of Ireland". In a letter to Miss Hutchins, Mackay wrote; "*Aleyonicum digitatum* [now called *Laminaria digitata*] was named right by you". He goes on to say - "you are getting on famously in this branch. I am proud of having set you to work in it, being persuaded that for your discriminating powers and great attention you will in time make some important discoveries in this branch of natural history." Dawson Turner praised Ellen for her exquisitely preserved specimens and her finding of rarities. All the botanists to whom she sent specimens, wrote to her asking if they could name species after her. To this request she repeatedly

said "No". However she did give in - Dawson Turner wrote about one of her seaweeds that it was "one of the most beautiful plants I ever saw, either this [no. 21], or No. 5 or No. 7 must be called *Conferva hutchinsiae* - choose which you please." When William Harvey described *Cladophora hutchinsiae*, another seaweed, he wrote this "A very beautiful and strong growing species discovered about the year 1808 by the late Miss Hutchins of Ballylickey near Bantry, whose explorations of her neighbourhood were as unremitted as they were successful and whose name is deservedly held in grateful remembrance by botanists in all parts of the world. To her the botany of Ireland is under many obligations, particularly the Cryptogamic branch, in which field, until her time little explored, she was particularly fortunate in detecting new and beautiful objects, several of which remain among the rarest species to the present day."

This is by no means a complete account of her work. Praeger described her as a "botanist of great promise who died at the age of thirty". What she did was a tremendous achievement for one person, and to me it is certainly amazing in such a short life. I can find no better words than those of Dawson Turner, taken from the last page of his *Historia fucorum*:

> In every season of the beauteous year
> Her eye was open, and with studious love
> Read the Divine Creator in his works,
> Chiefly in thee sweet Spring, when every nook
> Some latent beauty to her wakeful search
> Presented some sweet flower, some virtual plant;
> In every native of the hill and vale
> She found attraction; and where beauty failed
> Applauded odour or commended use.

THE GARDEN AT ARDNAGASHEL TODAY

The main planted area lies to the west of the house and covers approximately four acres. For convenience I will relate the position of the shrubs to the trees as marked on the plan (Fig. 3).

Firstly a few words about the planted area in general. The approach from the main entrance under the archway becomes very steep as one goes towards the house. Thus the area at the back of the house slopes and is walled off; at one time it formed part of a fruit garden. In front of the house there is a gravel path and a sea-wall to prevent erosion. This path leads to the garden and 'Middle West Walk' across a flat area which includes the lawn. The 'Lower West Walk' leads along the coast at the back of Hill 203.

1) Trees

The trees at Ardnagashel are for the most part mature specimens. The smaller trees mentioned below are young, having been planted within the last twenty years.

From my survey (Fig. 3) it is evident that many common species were planted at an early stage. There are numerous beech trees along the coast to the east of the house, and in the area of the lawn, under which, in the early days, were plantings of primroses. Beech also grows at the main entrance near the archway, and throughout the garden generally. Another abundant tree is Scots pine, but there are about nine good specimens.

From the 'Middle West Walk' as one passes across the lawn there is a dense patch of *Griselinia littoralis*. To the left (near 9) and in front are *Drimys winteri*, *Prunus laurocerasus* and two specimens of *Acer palmatum* 'Heptalobum Ozakazuki' which are fiery scarlet in autumn. Going up the slope we pass *Cupressus arizonica* (6) a small tree but graceful and columnar in habit, and beside it is *Cupressus macrocarpa*.

Juglans regia (10) is hidden from view by a beech on one side and by a magnificent specimen of *Cryptomeria japonica* (20). This latter tree has layered itself, its layered stems forming trees in their own right. *Sequoia sempervirens* (11) has reddish-brown bark and makes a very long-lived tree; its lower branches are drooping. The firs (*Abies grandis* 12, 19, 49) are huge, but 19 especially stands out as it is in a fairly open position near the 'Middle West Walk'. Specimens of cork oaks (*Quercus suber* 14, 33, 40) are scattered through the garden. One (33), growing on the lawn, is a mature tree with spreading branches; the centre has rotted and beech and fir saplings are growing on the rotting trunk. *Cryptomeria japonica* 'Elegans' (16, 17), with its bronze colouring in winter, contrasts beautifully with *Chamaecyparis nootkatensis* 'Pendula' (18) with its long, drooping branches of flat foliage. Near it are two young pines, *Pinus armandii* (15) and *P. montezumae* which has long bluish-grey, drooping needles. *Thujopsis dolobrata* (22) with its flat sprays of leaves is a fantastic specimen as are *Picea omorika* (21) and *Cedrus deodara* (23).

The wattles provide contrast of foliage and are excellently positioned against a background of conifers. *Acacia dealbata* (24), the silver wattle, is a smallish tree and has lovely flat, fern-like greyish-green leaves. Yellow flowers adorn the stems at Christmas. *A. pravissima* is quite different; it has long drooping stems with incurved leaves, and is a small wide-spreading tree about 20 ft high. Near these is *Drimys winteri* with big, leathery green leaves about 7½ in long.

Tree 27 is of special interest. It is *Podocarpus salignus* (willow-leaf podocarp). According to Alan Mitchell this is the biggest specimen in the British Isles. It is a bushy tree and when measured in 1966 was 64 ft tall with a trunk circumference of 9ft 1 in. According to W. J. Bean, it is by far the most elegant and distinct of the podocarps that can be grown in these islands. This specimen is rivalled only by one at Buxton in Devon, which measured 62 ft by 3 ft 6 in in 1966.

Myrtus apiculata was first introduced into the garden in 1880. Now, this myrtle grows wild in part of the naturally regenerating woodland to the rear of this part of the garden. Young seedlings in the vicinity could be classed as weeds! According to D. A. Webb, *Myrtus apiculata* is naturalized in this area. At Ardnagashel myrtle saplings are now more abundant than holly, young oak or other tree seedlings. Bean recorded specimens from 30 to 47 ft tall and from 2 to 4½ ft in trunk circumference at Ardnagashel.

The Cedar of Lebanon (31) is said to have been brought back from the Lebanon by one of the Hutchins family. Tree 35 is also of interest; it is *Trachycarpus fortunei* (Chusan palm). The trunk is formed by a mass of hard brown fibres which are the woody bases of leaves that have been shed. The leaves are fan-like, but what is most interesting is that there is a wild rhododendron growing out of the side of the palm, about half way up; this shrub flowers each year without fail. *Magnolia campbellii* ssp. *mollicomata* (46) was planted in 1915. It has pink to rose-purple flowers and is

supposed to be a rare variety. The remaining trees are common species, except perhaps *Aesculus turbinata*, the Japanese horse-chestnut, which has wide-spreading branches. There are a few eucalypts in the garden. *Eucalyptus globulus* (51) is a fine, tall specimen - it can grow up to 180 ft. This one is said to have been planted by Frank Hutchins in 1943. *Eucalyptus aggregata* (54) is a native of New South Wales and here,is a medium-sized tree.

2) Shrubs

The collection of shrubs is dominated by *Rhododendron* species and cultivars. There are several fine and rare specimens. Between trees 1 and 7 there are plants of *Rhododendron mucronatum* (white flowers in May), *R. hemitrichotum*, *R. vernicosum*, *R. cinnabarinum* var *roylei*. Also growing here are shrubs of *Camellia sasanqua* 'Usbeni' and *C. saluenensis*, both of which have pink flowers.

Nearby are shrubs of the fern-spray cypress (*Chamaecyparis obtusa* 'Filicoides') and *Rhododendron fargesii* which is noted for being very free flowering. These are overshadowed by *Magnolia sieboldii* and *M. sinensis*. Behind tree 18 is a specimen of *Pittosporum tobira*, a slow-growing shrub from Japan and China.

In the vicinity of trees 24 and 25, rhododendrons are again prevalent, but there are also good shrubs of *Mahonia lomariifolia*, *Callistemon citrinus* 'Splendens' and *Azara microphylla*. One uncommon species of *Rhododendron* here is *R. coryphaeum*. Behind this is *Gordonia axillaris*, a small and rare evergreen with leathery, glossy green foliage. It requires lime-free soil. *Rhododendron sinogrande* 'Boreale' and *Chamaecyparis formosensis* complete this group.

In the flat area behind the lawn and tree 33, are plants of *Stranvaesia davidiana* 'Undulata', *Rhododendron calophytum* and *Pieris formosa*. Along the path leading from this area, *Rhododendron cinnabarinum* 'Blandfordiiflorum' and *Rehderodendron macrocarpum* have been planted. The latter is a small deciduous tree, native of China, that is extremely rare in Irish gardens. Also in this area is a fine plant of *Lomatia ferruginea*, an evergreen whose branches are covered in a rich brown velvet. It is a small tree and has fern-like foliage.

On the far side of the stream and on the lower slopes of Hill 203 are planted *Rhododendron heliolepsis* and *R. sinogrande*. There is also a specimen of *Grevillea sulphurea*, with beautiful yellow flowers and needle-like leaves; it is not very tender.

Beside tree 40 are good specimens of *Pittosporum tenuifolium* 'Silver Queen', and *Trochodendron araliodes*. *Pomaderris apetala* is another rare Australasian plant requiring a warm, sheltered position or glasshouse conditions. Close to tree 46, *Camellia reticulata* 'Lion Head' and *Dacrydium cupressinum* have been planted. There is also a shrub of *Stachyurus chinensis*, which according to Hillier, is a rare species of considerable merit. The other species of *Dacrydium*, *D. franklinii*, is to be found here, while beside the stream are two tree-ferns (*Dicksonia antarctica*). Behind *Dacrydium* is a specimen of *Acacia riceana*, which flowers in February, and also *Cornus chinesis*.

To the east of the house, we can find *Pieris japonica*, *Mespilus germanica*, *Ilex aquifolium* 'Fructo Luteo' (with yellow berries) and *Cornus*

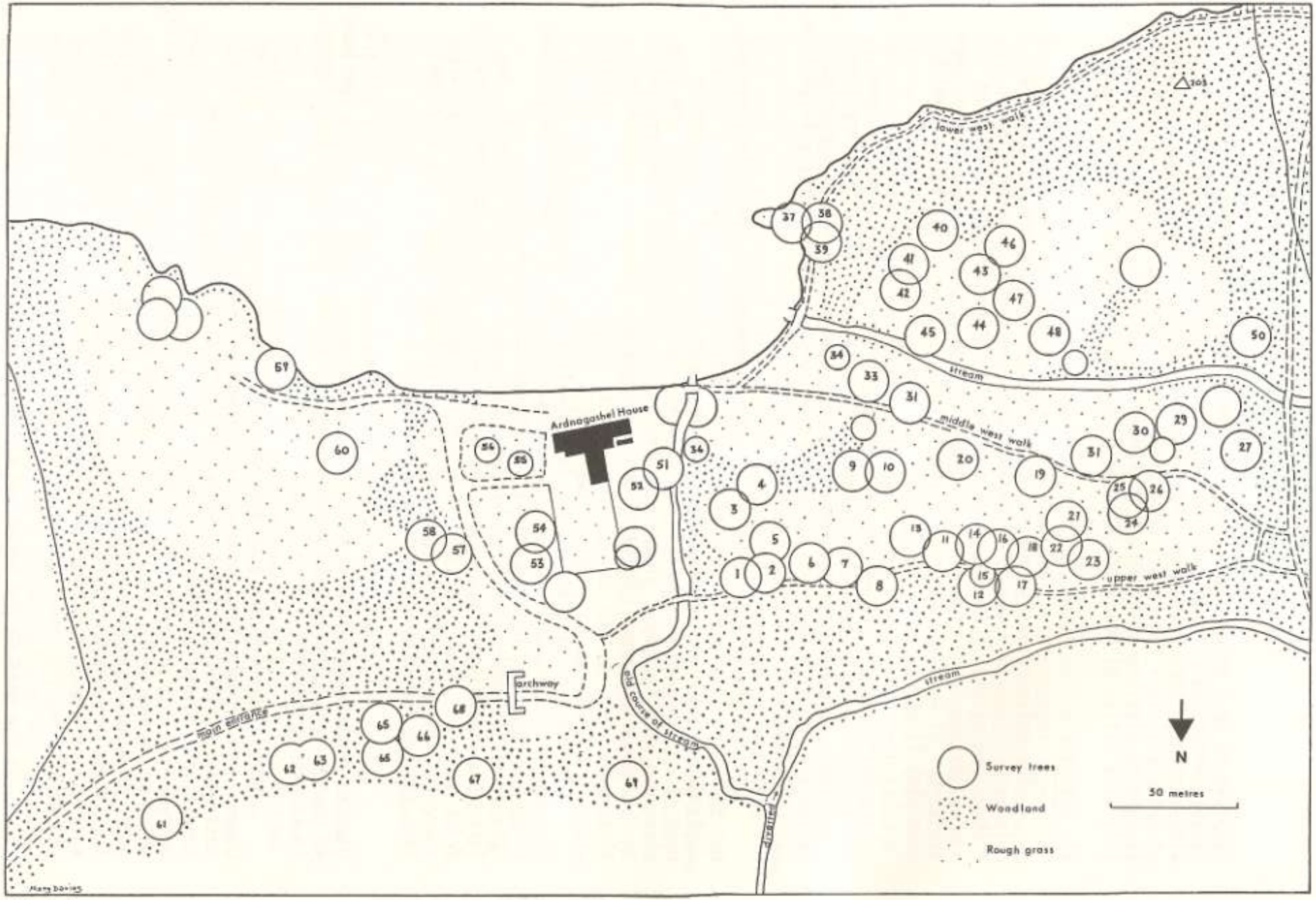
Ardnagashel House
lower west walk
middle west walk
upper west walk
stream
stream
main entrance
archway
old course of stream
diverted
Survey trees
Woodland
Rough grass
N
50 metres

Fig. 3

List of trees (as numbered on the map)

1. *Fagus sylvatica*
2. *Fagus sylvatica*
3. *Fagus sylvatica*
4. *Fagus sylvatica*
5. *Fagus sylvatica*
6. *Cupressus arizonica*
7. *Cupressus macrocarpa*
8. *Fagus sylvatica*
9. *Fagus sylvatica*
10. *Juglans regia*
11. *Sequoia sempervirens*
12. *Abies grandis*
13. *Pinus sylvestris*
14. *Quercus suber*
15. *Pinus armandii*
16. *Cryptomeria japonica* 'Elegans'
17. *Cryptomeria japonica* 'Elegans'
18. *Chamaecyparis nootkatensis* 'Pendula'
19. *Abies grandis*
20. *Cryptomeria japonica*
21. *Picea omorika*
22. *Thujopsis dolobrata*
23. *Cedrus deodara*
24. *Acacia pravissima*
25. *Acacia dealbata*
26. *Drimys winteri*
27. *Podocarpus salignus*
28. *Rhododendron* cv.
29. *Myrtus apiculata*
30. *Robinia pseudoacacia*
31. *Cedrus libani*
32. *Cercidiphyllum japonicum*
33. *Quercus suber*
34. *Cordyline australis*
35. *Trachycarpus fortunei*
36. *Cordyline australis*
37. *Abies alba*
38. *Abies alba*
39. *Abies alba*
40. *Quercus suber*
41. *Aesculus hippocastanum*
42. *Pinus sylvestris*
43. *Pinus sylvestris*
44. *Pinus sylvestris*
45. *Pinus sylvestris*
46. *Magnolia campbellii* ssp. *mollicomata*
47. *Platanus acerifolia*
48. *Ulmus glabra*
49. *Abies grandis*
50. *Fraxinus excelsior*
51. *Eucalyptus globulus*
52. *Eucalyptus bicostata*
53. *Abies alba*
54. *Eucalyptus aggregata*
55. *Fagus sylvatica*
56. *Aesculus turbinata*
57. *Acer platanoides* 'Schneidleri'
58. *Castanea sativa*
59. *Fagus sylvatica*
60. *Pinus sylvestris*
61. *Pinus sylvestris*
62. *Pinus sylvestris*
63. *Pinus sylvestris*
64. *Fagus sylvatica*
65. *Fagus sylvatica*
66. *Fagus sylvatica*
67. *Fagus sylvatica*
68. *Griselinia littoralis*
69. *Ulmus procera*

capitata which has strawberry-like fruits. *Hamamelis mollis* grows here, along with *Osmanthus delavayi* which sometimes flowers at the same time, in the middle of February.

CONCLUSIONS

As I hope I have shown, Ardnagashel is ideally situated for growing tender trees and shrubs. It is a place of rare and unusual beauty, a haven for the horticulturist. It is part of our heritage and deserves to be better known. It is one of the great gardens for which the country is noted.

ACKNOWLEDGEMENTS

I wish to thank Patricia Hutchins for her assistance and Mrs. Kaulback for permission to visit the garden and study the plants. Michael McCourt took the photographs.

Editorial note: This article is based on a project entitled *Ardnagashel - a hidden treasure* which the author presented as part of his work for the certificate in amenity horticulture at the National Botanic Gardens, Glasnevin, in 1981.

MICROPROPAGATION IN HORTICULTURE AND IN CONSERVATION

By ALAN C. CASSELLS
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Traditional plant propagation based on seed or vegetative methods has limitations for ornamental plants. Many of the latter either do not produce seed or are not true-to-type from seed, and are slow or difficult to propagate vegetatively. The methods used depend on the characteristics of the plant e.g. the production of tubers, ability of cuttings to root etc.[1]

Micropropagation[2,3] is a new scientific approach to vegetative propagation which exploits the natural abilities of plants but also has the potential to stimulate latent abilities. It is well-known that African violets and begonias, for example, have the ability to produce plants from leaf cuttings, but this phenomenon is very unusual in the plant kingdom. Micropropagation is revealing that this latent ability is widespread in plants.

Micropropagation is a term which includes two fundamentally different procedures for the propagation of plants. One is based on the culture of detached buds and bud-tips ('meristems'), that is, plant tissue with organised growing points. The second is based on the culture of plant tissue pieces (explants) lacking pre-formed buds, in which, as in African violet, buds can be induced to form. Such buds are called adventitious buds to distinguish them from the naturally formed axillary buds found in the axils of leaf stalks (petioles) (Fig. 1).

The technology involved is plant tissue culture (*in vitro* culture), of which micropropagation forms a part, and which is based on advances in our knowledge of the action of different groups of plant hormones including the familiar auxins or rooting hormones. The basic procedure involves aseptic culture. The plant tissue is decontaminated in commercial disinfectant, then transferred aseptically to a sterile culture medium. The sterile transfer must take place in a clean environment, free of bacterial and fungal spores, for these would grow on the sugar-containing culture medium. The latter contains all the nutrients required for plant growth, i.e. minerals, trace-elements, and sometimes organic extracts such as coconut milk and a combination of plant hormones (Table 1). Sucrose is required for the growth of the plant cells which cannot adequately photosynthesise in culture. The medium is solidified with agar (to form a jelly). The science lies in the development of the culture medium.

Table 1. Some constituents of Tissue Culture media

Mineral salts	Concentration
Potassium phosphate, ammonium nitrate, magnesium sulphate, calcium nitrate, ferrous sulphate, etc.	200 → 2000 mg/l

Trace elements	
Boron, zinc, manganese, copper, cobalt, molybdenum, iodine	0.2 → 200 mg/l
Organics	
Thiamine (vit. B), nicotinic acid, inositol, etc.	1 → 20 mg/l
Energy source	
Sucrose	5 → 30 g/l
Plant hormones	
Auxins, cytokinins, gibberellins, etc.	0.01 → 10 mg/l
Supplements	
Coconut milk, yeast extract	1 → 10%
Agar	
(to solidify)	6 g/l

The acidity is adjusted (to pH 5.8)

The origins of plant tissue culture go back to the 1950's when plant scientists first isolated the hormones, auxins and cytokinins. These early experiments showed that the relative amounts of auxins and cytokinins in the culture medium influenced the responses of stem tissue pieces in the experimental plant, tobacco.[4] High auxin, low cytokinin, induced roots to form and the reverse ratio induced buds (Fig. 2a). This revealed the latent abilities of tobacco tissue and initiated a period of great endeavour in which scientists throughout the world applied this approach to the culture of a wide range of plant species. While the results were very encouraging, it was soon found that unlike herbaceous plants which were responsive, explant cultures of woody species and plants of monocotyledonous families such as bromeliads, palms, lilies, orchids, etc., either did not produce adventitious buds in tissue culture or were very recalcitrant.

In parallel with these studies on the culture of explants (tissues lacking pre-formed buds), another procedure was being developed for detached bud culture, based on knowledge of the role of hormones in apical dominance. Apical dominance is the phenomenon whereby the leading bud on a branch or stem supresses the development of lateral (axillary) buds or branches. It was known that removal of the apical bud (by pruning) led to branching and it had been hypothesised that auxin, diffusing from the apical bud caused the inhibition. Cytokinins applied to plants had been shown to overcome apical dominance.

This approach has been applied to the tissue culture of buds (and bud tips). The bud is a miniature compressed replica of the plant with a lateral bud or bud initial in the axil of each leaf. (This can be seen in a large bud such as a Brussels sprout.) By isolating the bud or bud-tip and culturing it on a medium containing cytokinins and gibberellins (another

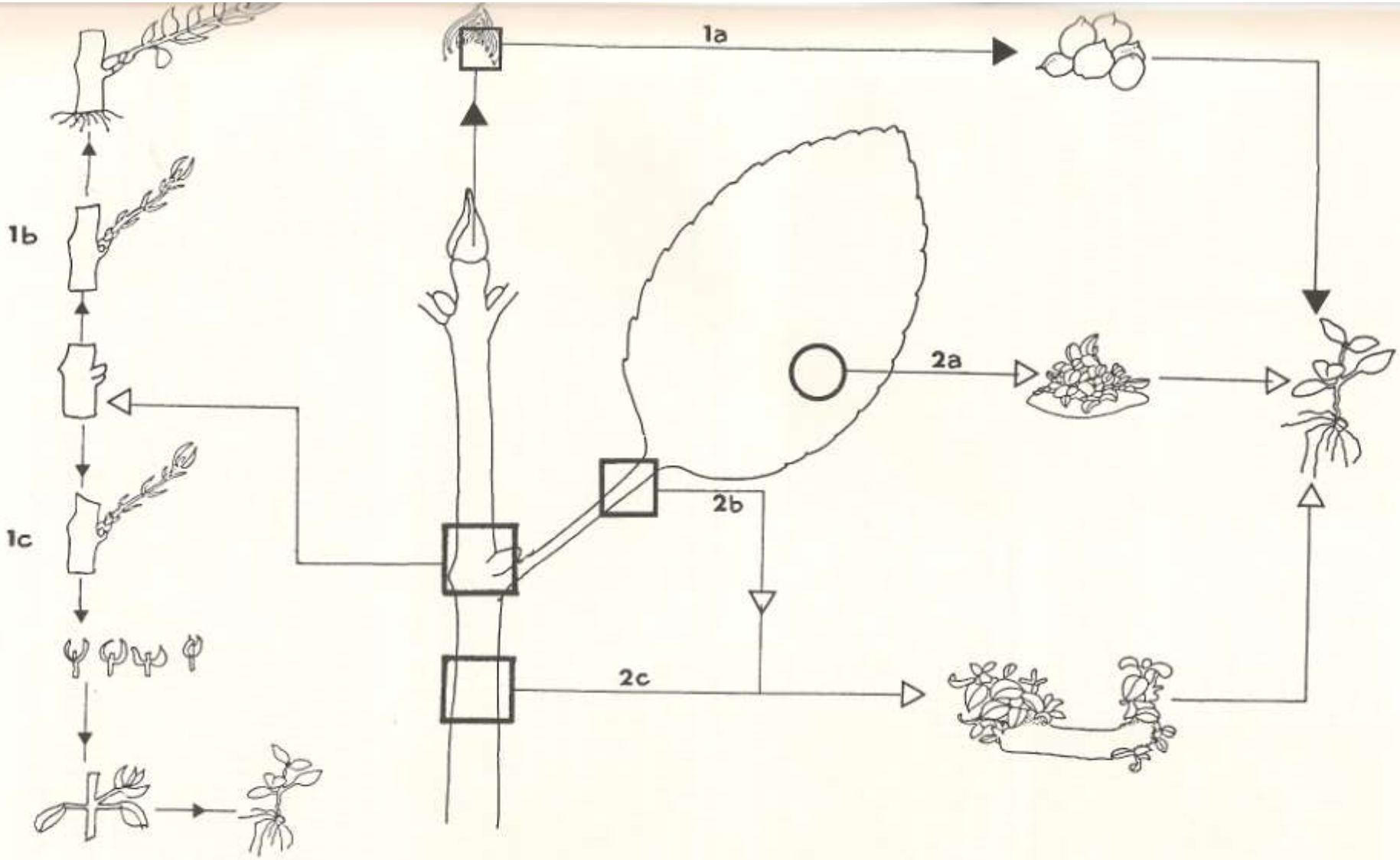


Fig. 1. Representation of the main micropropagation procedures.

1. *via pre-formed buds*, a) multiplication via axillary buds, b) via aseptic nodal cuttings, c) via secondary nodal cuttings.
2. *via explants* (tissue pieces lacking pre-formed buds), a, b and c show *de novo* (or adventitious) bud development *in vitro*.

group of plant hormones, see below) and sometimes with a trace of auxin, it was possible to get the buds to multiply without forming shoots. These cultures could be sub-divided and so on. The process is infinite if the proliferating bud cultures are regularly sub-divided and transferred to fresh culture media. Many millions of buds can be produced from a few in a year. If the buds are left without division, they will grow out to form shoots and these can be separated and rooted directly in a propagator or transferred to a medium containing low auxin which induces roots. To minimize damage on transfer to soil, the plantlets are treated as seedlings.

As an aside, gibberellin, referred to above, causes stem elongation in plants, but nurserymen may be more familiar with anti-gibberellins e.g. Alar, Cycocel (CCC) etc., which are used to counteract gibberellins in the commercial cultivation of chrysanthemums, pelargoniums, and now, cereals.

In micropropagation, the procedures outlined continue to be developed for the mass clonal (true-to-type) propagation of commercially important plants. Their commercial use depends critically on the value of the plant, for the research and labour costs are high and the efficiency of the procedure must compare with conventional methods. Bud-tip culture is the preferred method at present as it can be used for the main groups of plants, that is, for broad-leaved plants including woody species, like rhododendrons, soft fruits, roses and monocotyledonous plants. Explant culture still has restricted application for cloning due to problems in developing good media, and is reported to give plants which are not true-to-type in many cases. Figure 2b shows young plants *in vitro*.

The question of trueness-to-type of tissue cultured plants has attracted comment in horticultural magazines to the extent that some nurseries advertise, "our plants are not tissue cultured"![5] Before discussing the question of trueness-to-type, it is necessary to mention the problems of plant viruses, plant chimeras and unstable genes. All three may cause abnormalities in pigment distribution in the leaves and flowers of plants. Well-known examples are *Abutilon* leaf mosaic (caused by a virus) (Fig. 2d), variegation in pelargoniums which is chimeral in nature (Fig. 2c) and speckling in the leaves of *Tropaeolum* caused by unstable genes (Fig. 2f). Viruses are widely known as agents of disease, but in ornamental plants, they can have beneficial effects e.g. give cultivars with attractive pigmentation.[6] Such viruses are not generally infectious and thus pose no threat to other plants in the garden or nursery.

Plant chimeras are examples of plants where genetically different cells co-exist and multiply together as the plant grows.[7] The cells at the apical bud tip give rise to the tissue of the plant. These cells occur in layers with the outer layer giving rise to the skin (epidermis of the plant) and the layers beneath that to the body of the plant. In the 'L'Elégante'-type pelargonium (Fig. 2c) the second layer of the apex has given rise to abnormal (albino cells) at the leaf margin and the third layer to normal green cells. In 'Freak of Nature' this is reversed, the second layer derived cells are normal green and the third layer albino, hence the reverse variegation (Fig. 2e). It can be seen from the irregularity of pigmentation in 'Freak of Nature' that the coexistence of cells is not always peaceful! Indeed, it is the main basis of sporting (see the all-white shoot in 'L'Elégante' (Fig. 2c) where one cell type displaces the other in the formation of a new bud.

Fig. 2. (a) Root (high auxin/low cytokinin) and shoot (high cytokinin/low auxin) production *in vitro* controlled by plant hormones.
(b) Jars containing young tissue culture plantlets.
(c) Plant of ivy-leaf pelargonium 'L'Elégante' with variegated leaves. Note white leaf margin and albino side shoot or 'sport'.
(d) Mottling due to mosaic virus in *Abutilon*: infected (left) and healthy leaf (right).
(e) Plant of zonal pelargonium 'Freak of Nature' showing leaf variegation; the reverse of 'L'Elégante'.
(f) Leaf of *Tropaeolum* 'Alaska' showing irregular colour due to unstable pigment genes.
(g) Leaf of zonal pelargonium showing symptoms of nutritional deficiency.

Genes are responsible for the hereditary traits in plants. Some genes associated with pigment formation may be unstable, resulting in random production or non-production of pigment as in *Tropaeolum* above.[8] The normal situation is that the genes for pigment production are 'switched on' or expressed. Sometimes the 'switch' fails and consequently the cells affected do not produce pigment, hence the random streaks (Fig. 2f, see also Fig. 3).

Plant viruses are widespread in nature. They are transmitted by fungi, insects in the soil and above ground by aphids etc., also by pruning and sometimes through contact between infected and healthy plants. The majority of plant viruses do not produce visible symptoms like mosaics; they do however cause loss of vigour, hence the progressive decline of yield in soft fruits like strawberries and currants, as virus infection builds up. It is important to distinguish between true virus symptoms and symptoms arising from nutritional deficiencies for example (Fig. 2g).

If a virus-infected plant is micropropagated, several things can happen. In explant culture, the virus passes into the progeny plants with disastrous consequences: namely, the mass propagation of virus-infected plants! In bud-tip culture, there are two possibilities depending on the size of the bud-tip cultured and the invasiveness of the virus. The apical cells of a plant are generally free of viruses and other diseases affecting the rest of the plant. The culture of bud-tips may thus be used to produce virus-free plants. In any event it is essential to avoid risk and ensure that any plant used in micropropagation is virus-free. Plants can be screened for the presence of viruses using immunological tests, electron microscopy etc. Sometimes it is found that when virus-free plants are produced they are too vigorous: e.g. virus free rhubarb several feet high or virus-free pelargoniums with cabbage-sized leaves and which fail to flower!

From the foregoing, it can be surmised that chimeral and beneficially-infected plants may not give true-to-type progeny in tissue culture depending on the method of micropropagation used. Viruses will tend to be eliminated in bud-tip culture and chimeras will tend to sport in explant culture. The latter occurs because adventitious buds may form from single cells of the mixed cell parent, whereas cultivars with unstable genes will propagate 'true-to-type' in either procedure with random streaking of pigmentation. The behaviour in tissue culture of chimeral, beneficially-infected and unstable gene cultivars of pelargonium are shown in Fig. 3.

While loss of beneficial infections and breakdown of chimeras may be a major source of variation in tissue culture-derived plants, genetic instability caused by the procedure itself may in some cases also contribute to the production of abnormal progeny.

Micropropagation has an important role in conservation and re-introduction of endangered plants,[9] in that it can be used to eliminate disease and to mass clone from a few buds of an individual. Additionally, aseptic cultures can be stored at low cost in illuminated domestic refrigerators for long periods. A further role in conservation is in the international distribution of virus-free and disease-free plants.

It should be recognised that the development of commercially viable micropropagation procedures is expensive and requires very sophisticated support facilities such as an electron microscope for virus studies. This poses the question, has it application for the low-volume specialist nursery and for the amateur who wishes to propagate a favourite plant for friends? The answer in my view, is a qualified "yes". There is an intermediate level of technology between traditional propagation and

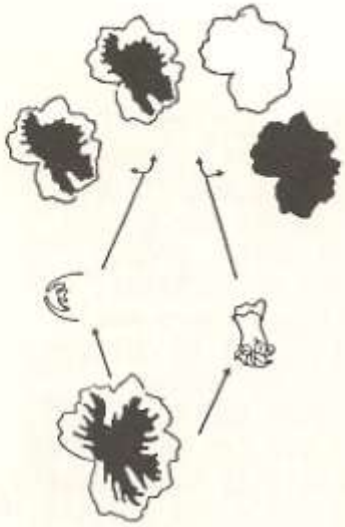
micropropagation. This is based on aseptic culture of nodal cuttings (Fig. 1). Under non-aseptic (non-sterile) conditions normally used by gardeners, such cuttings might possibly fail due to infection, inadequate amounts of internal hormones to self-organise and inadequate food reserves for growth etc. In aseptic conditions, with relatively unspecialised media, growth can be supported by sugar in the medium. With pelargoniums or fuchsias, for example, in plants which would yield about 3 stem-tip cuttings, there would be about 30 nodes available. These could be sprouted and rooted in culture, over-wintered safely indoors, and planted in the glasshouse for summer flowering. This technique can be further exploited, for when the nodal bud sprouts and gives rise to further nodes of its own, these too can be used as a source of nodal cuttings. This technique is used commercially to propagate virus-free potatoes though as yet has only been developed for a few species.[10]

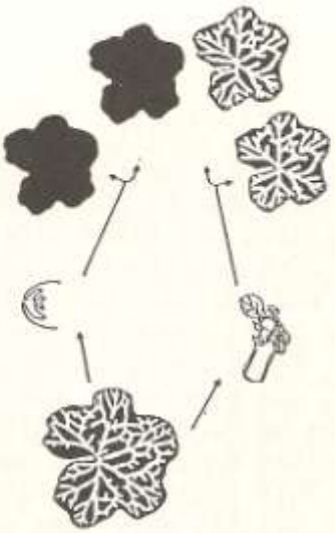
It is to be expected that the initial effort will go into high value/high volume crops. Economically important tropical plants such as pawpaw (*Carica papaya*), cocoa (*Theobroma cacao*), sweet potato (*Ipomoea batatas*), coffee (*Coffaea arabica*), groundnut (*Arachis hypogea*), yam (*Dioscorea* spp) and oil palm (*Elaeis guineensis*) have been micropropagated, as have grapevine, peaches, plums, apple rootstock and citrus fruits. There is considerable potential for micropropagation in forestry. *Eucalyptus*, *Populus*, *Castanea*, *Acer*, *Picea*, *Pseudotsuga* and *Santalum* have been widely studied, and the responses of *Cryptomeria*, *Paulownia*, *Eugenia*, *Lagerstroemia*, *Magnolia*, *Embothrium* and *Rhododendron* to *in vitro* culture noted. Work is continuing on genera such as *Forsythia*, *Buddleja*, *Weigela*, *Ribes*, *Escallonia*, *Hydrangea*, *Spiraea*, *Potentilla*, *Fuchsia* and *Dianthus* and on those used in the cut flower/pot plant trade such as *Freesia*, *Gerbera*, *Saintpaulia*, *Begonia* and *Chrysanthemum* cultivars. The irises, lilies, daffodils and their relatives are being studied. Even the Venus flytrap (*Dionaea muscipula*) has not escaped the attentions of micropropagators![11]

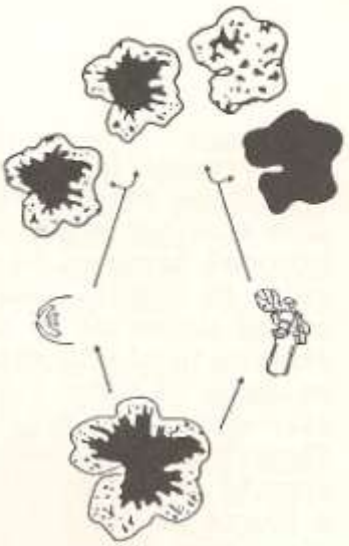
In general, it should be possible with slight modification of procedures, to use the same approach for less common cultivars of the same genera. Much interesting research on rarer species is being done in micropropagation facilities in botanic gardens (e.g. Florida, Kew, Singapore) and in specialized nurseries.

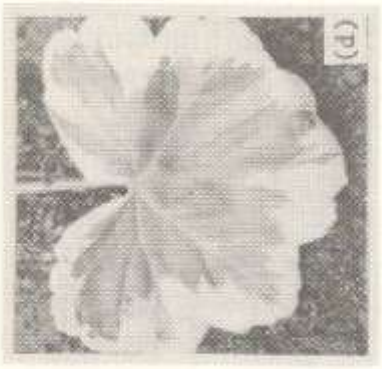
In Australia horticulturally valuable species of the kangaroo paw genera, *Anigozanthos* and *Macropidia* have been micropropagated in an attempt to overcome the problems of low or difficult seed germination and sterility in hybrids which have attractively coloured flowers and are resistant to disease![12] Studies of *Grevillea* in Israel have illustrated an important principle - namely that the investigator should know the plant. Recourse to the literature revealed that the roots of proteaceous plants require good aeration. A modified rooting procedure, whereby shoots were supported on paper bridges in a liquid, rather than a solid medium was devised and worked well.[13]

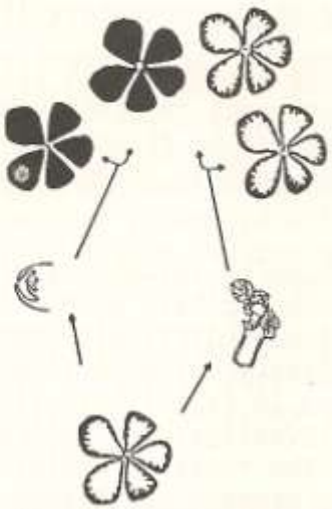
There are many other aspects of tissue culture and applications of aseptic technique beyond the scope of this article which are making significant contributions to the improvement of existing crops and to the production of artificial hybrids. One, however, is worth mentioning: namely aseptic seed germination.[14] This technique, involves decontamination of the seed and then culturing it aseptically. The procedure first gained widespread commercial application in the culture of orchid seeds and fern spores. The media used are in general simple mineral salt mixtures with sucrose. The











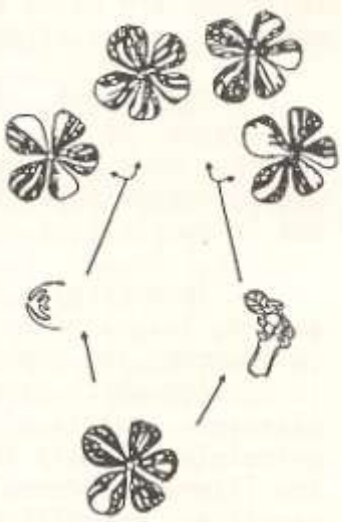


Fig. 3. The behaviour in tissue culture of chimeral, beneficially infected and unstable gene varieties of *Pelargonium*

(a) 'Mr Wren', a flower chimera which is true-to-type via bud culture but breaks down to give progeny with all-white or all-pink flowers in explant culture.

(b) 'Mexicana', a beneficially-infected variety, the beneficial infection is eliminated in bud tip culture to give a solid flower colour but is transmitted in explant culture.

(c) 'New Life', a variety with unstable flower colour genes, is propagated 'true-to-type' via either procedure but note streaking of colour is random in progeny.

(d) 'Mme Salleron', a variegated leaf chimera, propagated true-to-type from buds but gives albino or all-green progeny via explant culture.

(e) 'Crocodile', a beneficially infected variety (behaviour as 'Mexicana' above).

(f) 'Magaluf', a variegated leaf chimera with unstable genes in the albino cells; it is propagated true-to-type via bud culture but gives all green and albino/green-flecked progeny via explant culture.

unit at Kew for example, uses this technology to complement micropropagation in its conservation work.

As research in universities, government research stations and in commercial micropropagation companies increases, it will permeate the growing of all types of plants. The potential is considerable since the procedure is virtually stock-independent. Instead of maintaining acres of stock plants at high cost and risk of disease, growers will store their 'nuclear' stock in fridges. This ability to mass-propagate from limited nuclear stock will allow the rapid introduction of new varieties and the possibility of rotation of existing varieties (rather than the boom and burst cycles of glut and scarcity). Further, micropropagated plants should be disease-free: no more the risk of introducing disease on bought-in plants.

As I have mentioned, a great deal of research is being carried out throughout the world on local native floras which must have exciting prospects for the wider dissemination of disease-free novel plants. The EEC this year has agreed to fund a research project (COST 87) into an evaluation of the commercial potential of micropropagation using *Cordyline*, *Gerbera*, *Pelargonium*, *Saintpaulia*, apple rootstock and *Nephrolepis* as model plants.

The main difficulty for the smaller specialist nurseries lies in applying the technology with no technological support. To overcome this, training courses in micropropagation are being introduced by universities and government laboratories and there are commercial firms who will prepare tissue culture media to the customers' requirements. (The 'recipes' can be gleaned from the scientific literature.) The greatest difficulty for the nurseryman (or amateur) in applying micropropagation will be in understanding the plant itself - is it a chimera?, is it beneficially infected? etc. and in dealing with diseased stock. The production of disease-free stock will probably best be left to government or appropriately equipped commercial laboratories in the short term, but even here, there has been progress with the development of anti-viral chemicals, to date, only shown to work in potato and tobacco cultures,[15] which when included in the culture media, result in the production of virus-free progeny in both bud-tip and explant culture. Do-it-yourself micropropagation is not far away!

ACKNOWLEDGEMENTS

I would like to thank Judy Cassells for drawing Figures 1 and 3.

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MOUNT MERRION IN 1714 - WAS THERE A STOVE-HOUSE?

By WILLIAM O'SULLIVAN
Harbourne, Torquay Road, Foxrock, Dublin 18.

The medieval Dublin family of Fitzwilliam were ennobled as viscounts Fitzwilliam of Merrion in Charles's I time. Richard the fifth viscount conformed to the established church, took his seat in the Lords in 1710 and abandoned the old castle at Merrion strand for a new house up the hill at Mount Merrion.[1] He built terraces and planted radiating elm avenues which survived in the further landscaping developments of his successors.[2] But did he also have a stove? In the summer of 1714 when Queen Anne died and the Dublin government was anxiously smoothing the path of the Hanoverian succession, Fitzwilliam lent his house to William King, archbishop of Dublin and a leading Irish intellectual. On September 9 King was sworn in as one of the new lords justices who were to rule the country in the lord lieutenant's absence and had to return to the city.[3] He wrote his thanks to Fitzwilliam on September 10, "I entered yesterday on a new scene of life and all since has been ceremony, drums, trumpets, salutations so that I fancy there would not be much more trouble in a marriage!"[4] Of Mount Merrion he wrote, "I find it a very healthy place ... nothing troubles me more on this turn of affairs than that it will oblige me to leave a place where I have enjoyed my health so well, sooner than I intended. It will enhance the obligation I owe your Lordship when I tell you that I have had out of your gardens, melons, peaches, apricots, ripe almonds as any in France."[4] It is I suppose possible that these could have been produced without the benefit of a heated house but rather unlikely.

NOTES

1. *Complete peerage*; W. St. J. Joyce *The Neighbourhood of Dublin* (Dublin 1931), pp. 28-29.

2. E. Malins and the Knight of Glin, *Lost Demesnes* (London 1976), p. 104.
3. F. M. Powicke and E. B. Fryde, *British Chronology* (1961), p. 162.
4. T.C.D. MS 2536 (King's letter-book) f.54, quoted with the permission of the Board of Trinity College Dublin. The spelling, punctuation and capitalisation have been modernised. King never married.

CANON PATTEN'S NURSERY GARDEN AT FETHARD, COUNTY TIPPERARY

By RUTH E. DUTHIE
15 Abbey Road, Oxford OX2 OAD, England.

My father, Richard Cecil Patten (born 9 January, 1872) was Rector of Holy Trinity Church, Fethard, Co. Tipperary from 1904 until his death on 8 October, 1942. He married in 1906 and I was born the following year. His youth had been spent mainly in the Dun Laoghaire area so he had little opportunity for gardening: he was self-taught but quickly became a keen and skilled gardener. We always had excellent vegetables and fruit and from as early as I can remember, there was a wonderful, wide herbaceous border between the vegetable garden and the tennis court, both enclosed by tall stone walls. The walls surrounding the tennis court were clothed with climbing roses, 'William Allen Richardson', 'Gloire de Dijon' and old cabbage varieties as well as shrubs such as the orange buddleia.

Apart from this large walled garden, there were about fifteen acres of glebeland but very few amenities. All the water had to be pumped and the drinking water carted from the town - so help for the garden, milking, and other tasks was essential. As long as I can remember, Dick Allen was with us and was still there at the time of my father's death.

From 1911 until 1914, my father and G. J. (Jack) O'Brien of Lakefield House organised the Fethard Flower Show. This was an ambitious show, for as well as having classes for flowers, fruit and vegetables with handsome prizes, there were competitions and races for all ages and side-shows. A full description of these shows appeared in the *Clonmel Chronicle* ('Teas ad lib 9d.'). The last of these shows took place in the first year of the War and it was in the following year that the first advertisements from my father appeared in the local newspapers. On 29 May 1915, the following appeared in the *Clonmel Chronicle* and was repeated up to 30 June.

Bedding Plants for Sale
(Ready 1st June)

Splendid well-grown Bedding Plants in great variety, including Antirrhinums, Asters, Stocks, Begonias, Geraniums, Pansies, Violas etc., etc. Write for complete price list to Rev. R.C. Patten, F.R.H.S. Fethard Rectory, Co. Tipperary.

And from 3 July to 1 September of that year:-

Broccoli and Cabbage Plants for Sale

Nine varieties of Sutton's Broccoli for succession 1s.6d. per 100, Brussel Sprouts 1s. per 100. Cabbage plants - Enfield Market, Savoys, etc. 8d. per 100. Carriage (any number) 4d extra. All splendid strong plants.

These advertisements were repeated in the bi-weekly issues for a month or more.

Fig. 1. Canon R. C. Patten (c. 1937)

Similar advertisements appeared in the following years. It is worth mentioning that very few other advertisements for horticultural products were to be seen. There were then excellent Irish nurseries from which those with large gardens could order plants, but it was well-nigh impossible for those with more modest gardens to buy flowering plants locally. My father was very happy to have made it possible for local people to beautify their homes with more interesting gardens. There was also a vast sale of brassicas to farmers. When the railway gave prizes for the best-kept station, it was seldom that Fethard failed to be the winner.

By 1917 two advertisements for flowering plants appeared; the first mainly for biennials, like sweet Williams and Canterbury bells and also for polyanthuses and coloured primroses (mostly priced 1s. 6d. per dozen); later from June, came the notice for bedding plants and also for herbaceous perennials, including delphiniums, lupins and carnations but also for some vegetables, - cucumber, vegetable marrow and tomato plants (the latter 'grand plants, showing flower, out of pots, per doz. 4s. 6d'), while in late summer came the advertisement for brassicas. In 1919 'well-rooted strawberry runners' were added; these were 'Laxton's George V', an improved 'Royal Sovereign' at 7s. 6d. per 100. That year cabbage plants were also offered per thousand (15s.).

For the sake of the record it seems desirable to reproduce the advertisements for one complete year and I have chosen those for 1921, which certainly was not an easy or happy one in South Tipperary.

APRIL 30 1921 *'Plants for Sale'*

Aquilegia (Columbine), Sutton's new long-spurred hybrids, most beautiful colours, hardy perennials; year old plants, 2s. 6d.; Geum "Mrs Bradshaw", grand large orange-scarlet flowers, blossoms for months; year old plants, 2s. 6d. Sweet Williams, Sutton's Superb mixed, and Pink Beauty, 1s. 6d. Sweet Pea Plants, best Spencer, mixed 1s. 6d., Foxgloves, Giant White & Giant mixed, 1s. 6d., Canterbury Bells, mixed 1s. 6d. and 2s. 6d.; Lupins, White Tree and Polyphyllus, mixed 1s. Pansies, finest strain procurable, 3s.; Violas, to colour or mixed 2s. 6d. & 3s. All per doz. for grand large plants. Part carriage or postage 1s. extra. Also Arabis, Daisies, Forget-Me-Nots, Polyanthus, etc., etc. - Rev. R.C. Patten, F.R.H.S., Fethard Rectory, Co. Tipperary. [This advertisement was repeated up to 21 May.]

JUNE 1 *Bedding Plants for Sale*

Ageratum, Alyssum, Antirrhinums, Asters, Begonias, Celery, Cauliflower, Geums, Lettuce, Lupins, Lobelia, Nemesia, Petunias, Pansies, Stocks, Sunflowers, Sweet Pea Plants, Tomatoes, Violas, Vegetable Marrow, etc., etc. Write for full descriptive Price List to Rev. R.C. Patten, F.R.H.S. [and address as usual]. [Repeated bi-weekly up to 6 July.]

JULY 9

Quarter Million Cabbage Plants for Sale. Sutton's "Giant Drumhead", Sutton's "Early Market" (splendid whitening Cabbage, never bolts). Sutton's "New Year", per 100, 1s. 6d.; 1000, 12s. 6d.; 5000, £3. Also cauliflower, Broccoli, Brussel Sprouts, Curly Kale, Celery, Vegetable Marrow. All grand large plants. - Rev. R. C. Patten, [and address]. [Repeated in most issues up to October 12.]

SEPTEMBER 24

Strawberry Plants. "Royal Sovereign" and "Laxton's George V"; strong, well-rooted, transplanted runners per 100, 6s.; part carriage, 1s. extra. Rev. R.C. Patten, [etc]. [Repeated to October 12.]

OCTOBER 12

Plants for Sale. Canterbury Bells, Sweet Williams, Foxgloves, Mrs Sinkins Pinks, Geums, Aquilegia, Aubrietia, Arabis, Polyanthus, Primroses. All magnificent large plants, also flowering shrubs in great variety. Write for list to Rev. R.C. Patten, [etc].

Another, though shorter advertisement for cabbages also appeared. Both these advertisements were repeated to 5 November.

By 1927, the range of plants offered had greatly increased: roses, in variety and in different forms (standard, climbing etc.); fruit trees, including fan-trained apricots and cherries as well as a good list of apples and pears. Flowering shrubs were also available, for all of which lists could be provided. My father did not propagate these but bought them in from leading Irish nurseries: shrubs from Watson's of Killiney, roses from Dicksons, as I recall, but probably other nurseries were also used. Unfortunately neither catalogue nor descriptive lists survive from this period; indeed only one catalogue has been found - undated, but from the evidence of the cultivars listed, it must refer to the late 1930s.

By 1930, Canon Patten (as by then he was) had become fascinated by alpine plants and had made an extensive rock garden in the field immediately in front of the house. The photograph (Fig. 2) was taken in the autumn of 1942 and so does not do justice to this garden, and it shows mainly the surrounding shrubs, but at least it can be seen what a lovely back-drop was provided by the slope of the land, with ruined Cramp's Castle and Slievenaman behind. As well as the area for rock plants, there was a pool feeding a small stream where water-loving plants were grown (*Lobelia cardinalis* was a delightful sight), and an area was excavated for growing acid-loving plants. (I remember making a wreath for his funeral of pink-berried *Pernettya* and *Gentiana sino-ornata*.) My father bought alpines from leading nurseries, like Ballawley Park in Dublin, but he propagated these alpines and 'Rock Plants' were added to the list of plants advertised. This garden gave my father great pleasure and he loved to show people round it, but he continued to produce the bedding and herbaceous plants so valuable particularly to local people. Woolworth's of Clonmel sold quantities of his plants and he found this sale most satisfactory as orders were given long beforehand and there was no wastage.

The nursery had by this time long outgrown the old walled garden, where large green-houses and frames had followed the original small green-house; two of the fields were in use for the propagation of perennials etc. Very beautiful they were with long lines of flowering plants; that of the then-new Russell lupins was a memorable sight. Fig. 3 shows the men in regular employment in the 1930s and includes two men with sons also in the photographs. It was a happy matter that the nursery could give employment in the area. In the height of the selling season additional boys were taken on; so far as I recall as many as 25 people might be working. All during the War, Miss Phyllis O'Connell did his secretarial work.

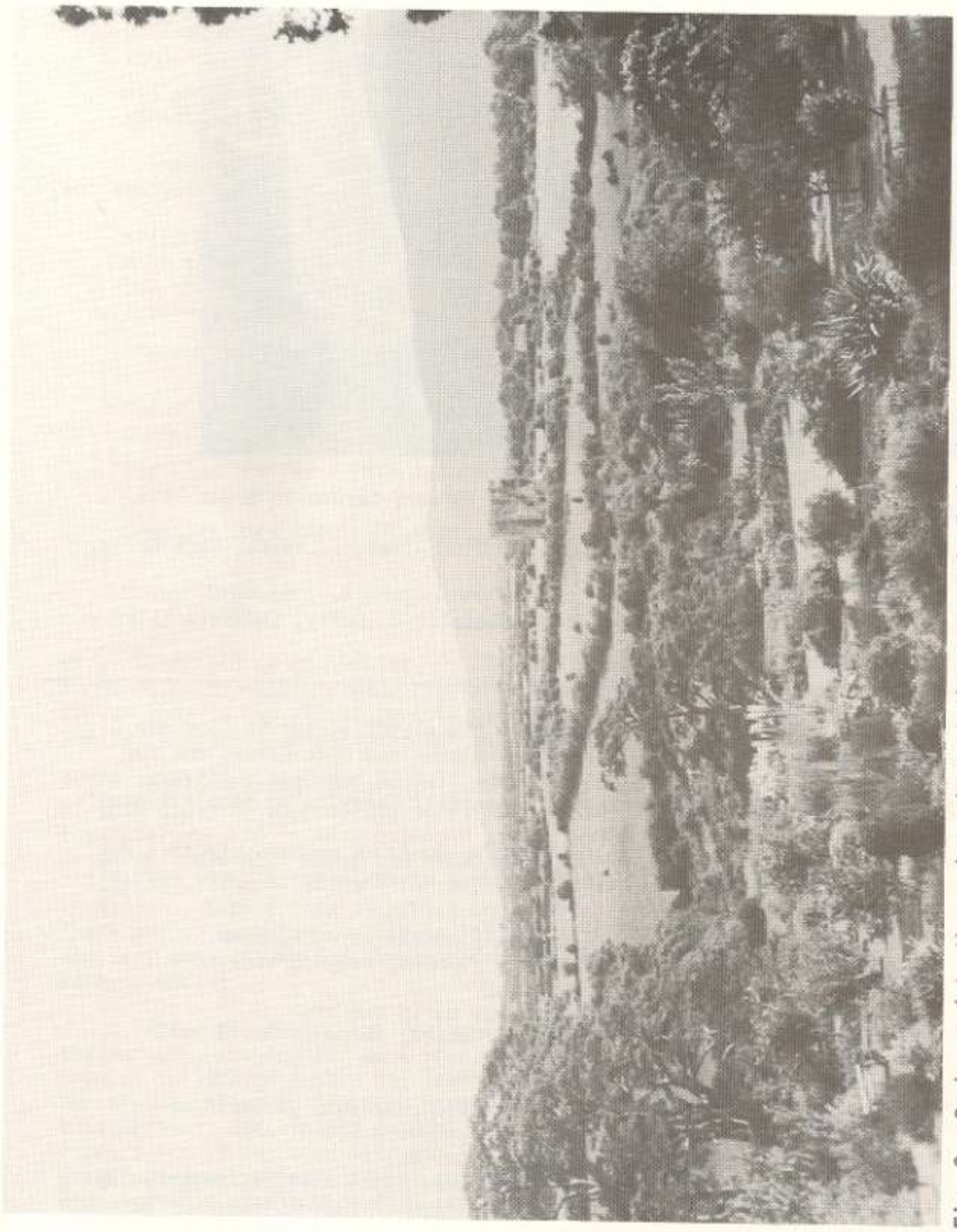

Fig. 2. Background to the rock garden, at the rectory in Fethard.

Fig. 3. The men working regularly at the Nursery Garden in about 1935.

Back row: Tynan, Bob Hally, D. Mullins, Dick Allen, T. Walsh, Jack Hally, Connie Fitzgerald.

Front row: M. Bogue, P. Butler, Paddy Daniels, J. Hally, Christie Allen, Jim Hally-Sen., J. Slattery.

It is impossible to reproduce all the plants listed in this one surviving catalogue of 'Hardy Plants for Alpine and Rock Garden and for Herbaceous Borders' so I have selected the list of *Aubrieta* cultivars, since this is both extensive and contains one variety carrying my father's name:-

AUBRIETIAS - unequalled for walls, dry banks or exposed places. Few other plants are so reliable for masses of brilliant flowers over a long season.

Ballawley Giant - Large Violet-like flowers; strong grower.
Barker's Double - Large semi-double flowers, rosy-carmine.
Bon Fire - New Dark Red; late Spring.
Dr. Mules - Deep rich violet flowers; early variety.
Fire King - Bright Reddish-crimson flowers, deepening with age.
Gloriosa - Large rose flowers.
Godstone - Rich purple-blue.
Hazelwood Gem - a Large mauve with white eye; late flowering.
Lavender Beauty - Large lavender-blue flowers.
Lloyd Edwards - Rich Violet; late flowering.
Magnificent - Large Blood-Crimson flowers, with distinctive brown eye.
Mikado - Smoky purple.
Patten's Red - Fine red variety.
Peter Barr - Rosy Purple.
Rosea Splendens - Masses of large, rich, soft pink flowers.
Russels Crimson - The darkest of the red shades.

Shangarry Double.
Souvenir de W. Ingram - Rosy Pink.
Studland - Large clear lavender mauve flowers.
Variegata Argentea - Silver foliage, lavender flowers.
Variegata Aurea - Golden foliage, lilac flowers.
Vindictive - Brilliant Red.

All above varieties, doz. 5s.; each ... 0.6d
Mixed Aubrietias from open ground per doz. 2s 6d.

There were also notably extensive lists of *Campanula* and saxifrages and amongst herbaceous plants, this list of *Kniphofia* has been selected:-

KNIPHOFIA (Tritoma - Red Hot Poker) Uvaria Grandiflora - One of the most showy and popular plants we have. There are many varieties but this old-fashioned scarlet is hard to beat. 4 to 5 ft. high. Best moved in Spring. Each ... 0.9d

Royal Standard - Rich Gold with upper half of spikes rich scarlet. 3 ft. each 1s 6d

Early Flowering (June) - Un-named, raised from seed - scarlet and lemon. 4-5 ft. each ... 6d. per doz 5s.

Sir K. C. Butler - Pale yellow and red flowers. July-August 5 ft. each ... 0.9d

Gracilis Gold Else - Slender spikes of rich canary-yellow flowers. each ... 1s 0d

Orange Princess - A grand variety. 4ft. each ... 1s 0d

Mr L. Schofield of Cappawhite, Co. Tipperary tells me white and purple-pink forms of *Phlox maculata* were available and were then 'purely Patten plants', though they do not figure in this catalogue. It is of interest that amongst the polyanthuses, gold-laced ones were included.

One endearing feature in such a modest man was his habit (not unusual at that time) of reproducing 'testimonials' from grateful customers both in the catalogue and in the newspaper advertisements, and as these came from all parts of Ireland it shows how widespread were his customers. Here are two:- 'Killarney. Thanks so much for such splendid plants, which arrived in grand condition. Such a nice selection and so beautifully packed'. and 'Piltown. Thank you so much for the lovely collection of plants - a real joy to handle - and very many thanks for the extra ones'. It was his habit to give a baker's dozen!

After his death, the family was happy that Mrs. A.C. Vigors took over the nursery, keeping it for a year at the Rectory and then moving it to her home at Tullamaine Castle and later to Coolmore House, both of Fethard. The nursery was known as 'Pattens Gardens'. A number of catalogues survive from this period: one, though undated, must have been issued soon after my father's time, since it was very like his in format and contents. Doris Vigors was a gifted gardener whose interest was chiefly in shrubs and alpines, so bedding and vegetable plants were given up. The catalogue of 1948/49 contained 'Plants for the Rock Garden and Dwarf Shrubs etc. suitable for the Rock Garden and Plants for the Herbaceous Border'. It is noticeable that amongst these latter most are suitable for growing as a background for, or intermingled with, alpines; those like Michaelmas daisies, lupins and even the kniphofias have

disappeared. It is good to know that 'Pattens Gardens' lived on at least into the mid-1950s.

I should add that I do not think my father made much money out of the nursery; even for the times his prices seem low; however it did allow him to have a beautiful garden, to indulge in his hobby even if this meant he had to work hard, and to give some much-needed local employment. He loved to show the garden to people who came from far and wide to see it and to buy plants. It certainly should not be thought that he neglected his pastoral duties for he was a much-loved and devoted parish clergyman.

ACKNOWLEDGEMENTS

At various times my father advertised in *The Irish Times* and in the *Irish Independent* and regularly in the local newspapers, *The Nationalist* as well as the *Clonmel Chronicle*. It was only convenient for me to consult the latter, which ceased publications in the 1930s. I am most grateful to Mr Brendan Long, the Editor of *The Nationalist* for his help and for allowing me to examine the volumes of the *Clonmel Chronicle*.

I am also most grateful to Mrs. Fitzgerald for her help in finding the photograph of the men who worked for my father. Her late husband is shown on the far right of the back row.

My thanks also go to Miss Mary Owens who produced the one and only catalogue from my father's time and also for the only one surviving from soon after Mrs. Vigors had taken over the nursery garden.

Miss Rosemary ffolliott, who has recently become the owner of the Rectory has kindly answered many questions. It is a pleasure to know the garden is in the hands of someone who will cherish it.

MAGNOLIAS IN IRELAND'S GARDENS

By MARY FORREST
Glenveagh National Park, Churchill, Co. Donegal.

Magnolias are valued ornamentals providing the gardener with a wide range of deciduous and evergreen flowering trees and shrubs. Over 80 species occur in tropical and temperate regions of the world; those native to North America and Eastern Asia being commonly cultivated in Irish gardens. Flowering is from spring until early autumn, depending on the species, and the flowers are borne singly at the end of a shoot. The perianth is composed of six, nine or twelve petal-like segments known as tepals. Fruits, which develop on many species in this country, are variously shaped, with either red or orange seeds. In winter magnolias can be identified by their slender branching system, ovoid flower buds and pubescent or glabrous leaf buds held close to the branch.

The Himalayan species *M. campbellii*, is one of the first to bloom, producing white or pink flowers with 12-16 tepals. Two fine pink flowering specimens have attained maturity at Mount Usher, Co. Wicklow, where they were planted in 1925 from material supplied by Messrs. Reuthe. At Mount Congreve, Co. Waterford, an avenue of *M. campbellii*, raised from seed produced there, frames a vista overlooking the River Suir. *M. sargentiana* also blooms about this time, displaying pink or purplish-pink flowers, which when fully expanded, are almost 30 cm in diameter. Downy flower stalks distinguish it from *M. campbellii*. At Mount Congreve, many seedlings planted beneath *Quercus robur* flower profusely each year. The flowers are succeeded by elongated seed capsules; the seed, however is rarely viable.

M. sprengeri and its relative, *M. heptapeta* - commonly called Yulan - produce goblet-shaped flowers before the leaves emerge. Together with *M. dawsoniana* they create a splendid display in the river garden at Birr Castle, Co. Offaly. *M. dawsoniana* was planted in 1915 alongside a specimen of *Chamaecyparis nootkatensis*, whose dark foliage serves as a foil for the pink magnolia flowers 8-13 cm in diameter.

The April-flowering Japanese species, *M. kobus* and *M. salicifolia*, both produce white flowers with six tepals. Narrow leaves, glabrous leaf buds and flower stalks distinguish the latter from *M. kobus*. Together with *M.* x *loebneri*, they make elegant medium-sized trees. Three cultivars of this hybrid have been named *M.* 'Leonard Messel', *M.* 'Merrill' and *M.* 'Neil McEacharn'.

M. stellata forms a dense, round bush. In April it is wreathed in small white flowers composed of 12-18 tepals, the most that can be found in the genus. A fine specimen can be seen at Dargle Cottage, Co. Wicklow.

M. wilsonii and *M. sinensis*, natives of western China, were introduced into cultivation by Ernest Wilson in 1908. They are shrub-like in habit, rarely attaining more than 8 m. White, cup-like, pendulous, fragrant flowers with a central cluster of red stamens are borne in June. At Annesgrove, *M. wilsonii* is planted beside another white-flowering species, *Davidia involucrata*, creating a spectacular display in early summer.

M. hypoleuca and the hybrid *M.* x *watsonii* (*M. hypoleuca* x *M. sieboldii*) are amongst the last of the deciduous magnolias to bloom. They resemble *M. wilsonii* in shape, except that the flowers are upright and sit in a cluster of leaves. The flowers, almost 20 cm in diameter with thick, creamy-white tepals enclosing a conspicuous mass of red stamens, are the most strongly-scented of the genus. A notable specimen of *M. hypoleuca* is in cultivation at Abbeyleix and one of *M.* x *watsonii* at Mount Congreve.

Two evergreen species, *M. grandiflora* and *M. delavayi* are recorded in Irish gardens. A native of the southern U.S.A., *M. grandiflora* has been in cultivation since the early eighteenth century. Although a free-standing tree, it is usually cultivated as a wall shrub. The dark shiny green leaves have a thick brown felt-like covering on the lower surfaces. Scented, creamy-white flowers, 20-25 cm in diameter, are borne in late summer and early autumn. *M. delavayi*, a native of Yunnan China, is one of the finest evergreen trees. The large, grey-green leaves 20-45 cm long are glaucous below. Flowers 18-20 cm in diameter are borne throughout the summer months. The finest specimen recorded in Ireland is in cultivation at Birr Castle. Planted in 1915, this tree, badly damaged during the winter of 1980, has now recovered. A specimen at Mount Usher, Co. Wicklow, was planted in 1918 from material supplied by the then Royal Botanic Gardens, Glasnevin.

APPENDIX

Magnolia acuminata	MU, BR, HT, FN, MS
" *ashei*	DA
" 'Caerhays Belle'	MC
" *campbellii*	FO, MU, DA, IL, MK, MC, FN, KM, MS, DE
" *campbellii* var. *alba*	MC
" " 'Charles Raffill'	MU, BR, MC, AR
" " ssp. *mollicomata*	MU, DA, IL, BR, MC, MS
" 'Charles Coates'	BR, MC
" 'Coral'	MC
" *cordata*	HT, MC
" 'Cornelian'	MC
" 'Crystal'	MC
" *cylindrica*	MC
" *dawsoniana*	CA, MU, BR, DU, MC
" " 'Chyverton'	MC
" *delavayi*	MU, FO, CA, BR, IL, RS, DU, MC, MS
" 'Firefly'	MC
" *fraseri*	MU, CA
" 'George Henry Kern'	MC
" *globosa*	MC
" 'Glow'	MC
" *grandiflora*	MU, FO, KB, BR, AX, MK, IL, JK, DU, KN, RS, MC, FN, MS
" " 'Exmouth'	FO, DA, IL, MC
" " 'Ferruginea'	CA, MK, IL, MC
" " 'Gallissonniere'	MC
" " 'Goliath'	MU, FO, BR, IL, MC
" " 'Majestic Beauty'	MC
" " 'Nanetensis Flore Pleno'	MC
" " 'Undulata'	MC

Magnolia 'Grimson Steppel'	MC
" 'Heaven Sent'	MC
" *heptapeta*	MU, FO, MK, IL, JK, MC, AR, DE
" " 'Fausts Pink'	MC
" " 'Purple Eye'	MC
" x *highdownensis*	MU, KB, FN
" 'Jane'	MC
" 'Kewensis"	MU, KN, RS, BR, MC
" *kobus*	MU, CA, FO, BR, AN, IL, DU, MC, AR, MS
" " var. *borealis*	MU, MC
" 'Lilenny'	MC
" x *loebneri*	MU, BR, AX, RS, MC
" " 'Leonard Messel'	MU, BR, MW, MC, MS
" " 'Merrill'	BR, RS, MC, FN
" " 'Neil McEacharn'	MC, GU
" *macrophylla*	CA, FO, AN, DU, MC
" 'Maryland'	MC
" 'Michael Rosse'	BR
" Nak - 2 - Tree	MC
" Nak - 4 - Tree	MC
" Nak - 6 - Busky	MC
" Nak - 6 - W	MC
" Nak - 20 - Busky	MC
" *obovata*	AN
" *officinalis*	MU, BR
" " var. *biloba*	KN, FN, MS
" 'Opal'	MC
" 'Pearl'	MC
" 'Picture White Giant'	MC
" 'Pinkie'	MC
" x *proctoriana*	CA, MC, MS
" *quinquepeta*	FO
" " 'Nigra'	FO, IL, MW, MC
" 'Ricki'	MC
" 'Rouged Alabaster'	MC
" 'Ruby'	MC
" *rostrata*	MU, MC
" *salicifolia*	MU, KB, AX, DA, MK, BR, MC, MS
" " 'Jermyns'	MC
" *sargentiana*	MU, RS, BR, DU, FN
" " var. *robusta*	DA, BR, HT, MC, GU
" " var. *robusta* 'Alba'	MC
" 'Sayonara'	MC
" *sieboldii*	FO, CA, MU, DA, HT, MS
" *sinensis*	CA, FO, MU, BR, HT
" x *soulangiana*	FO, KB, AN, BR, IL, MK, DA, JK, AX, KN, RS, DU, HT, MC, MS, GU
" " 'Alba'	CA, KN
" " 'Alba Superba'	KB, RS, MC, MS
" " 'Alexandrina'	BR, IL, KN, MC
" " 'Andre Leroy'	MC
" " 'Brozzonii'	MU, AN, MW, IL, MC, GU, MS
" " 'Burgundy'	MC
" " 'Glopisa'	MC
" " 'Grace McDade'	MC
" " 'Iolanthe'	MC

Magnolia x *soulangiana*		
"	" 'Jose'	MC
"	" 'Lennei'	FO, BR, IL, MW, KN, MC, MS
"	" 'Lennei Alba'	MC
"	" 'Lombardy Rose'	MC
"	" 'Norbertii'	IL
"	" 'Picture'	MC
"	" 'Rustica Rubra'	FO, CA, IL, MW, AN, MC, MS
"	" 'Speciosa'	MC
"	" 'Verbanica'	MC
"	*sprengeri* var. *diva*	MU, BR, DU, HT, MC
"	" var. *elongata*	BR
"	'Stardust'	MC
"	*stellata*	FO, MU, CA, AN, IL, DA, JK, DU, MC, AR, FN
"	" 'Rosea'	MC
"	" 'Royal Star'	MC
"	x *thompsoniana*	FO, MC
"	*tripetala*	MU, AX, IL, MC, MS
"	x *veitchii*	MU, FO, CA, DA, DU, BR, FN
"	" 'Isca'	MC
"	*virginiana*	IL, DA, MC
"	'Wada's Memory'	MC
"	x *watsonii*	FO, MU, AN, IL, MC, AR, MS
"	*wilsonii*	MU, FO, KB, AN, IL, DA, RS, BR, MC, FN
"	'Woodsman'	MC

KEY

AN Annesgrove, Castletownroche, Co. Cork.
AR Ardsallagh, Fethard, Co. Tipperary.
AX Abbeyleix, Co. Laois.
BR Birr Castle, Birr, Co. Offaly.
CA Castlewellan Arboretum, Castlewellan, Co. Down.
DA Dingle Cottage, Enniskerry, Co. Wicklow.
DU Dunloe Castle Hotel, Beaufort, Co. Kerry.
FN Fernhill, Co. Dublin.
FO Fota Arboretum, Carrigtwohill, Co. Cork.
GU Guincho, Helen's Bay, Co. Down.
HT Headfort, Co. Meath.
IL Ilnacullin, Glengarrif, Co. Cork.
JK John F. Kennedy Arboretum, New Ross, Co. Wexford.
KB Kilbogget, Killiney, Co. Dublin.
KN Kildangan, Co. Kildare.
MC Mount Congreve, Kilmeaden, Co. Waterford.
MK, MW } Bourn Vincent National Park, Killarney, Co. Kerry
MU Mount Usher, Ashford, Co. Wicklow.
PO Powerscourt, Enniskerry, Co. Wicklow.
RS Rossdohan, Tahilla, Co. Kerry.

ACKNOWLEDGEMENT

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DUN EMER - AN UNRECORDED CHAPTER IN THE LIFE OF AUGUSTINE HENRY

By SHEILA PIM
Old Bawn, Old Connaught, Bray, Co. Wicklow.

From the spring of 1901 to the autumn of 1902 Dr. Henry was living in London, helping to sort out his plant collections at Kew. It was in this interval between his two great scientific periods, that he became active in quite a different direction. It was the time of artistic renaissance in Ireland known as the Celtic Revival, and Henry played an important part in it through helping his friend Evelyn Gleeson to found the craft centre of Dun Emer.

There was already an Arts and Crafts Society in Ireland founded by Lord Mayo in 1894. There was also an Irish Industries Association founded by Lady Aberdeen. In a recent book on the Celtic revival, Jeanne Sheehy pithily remarks that arts and crafts gave the wives of Lords Lieutenant something to do without getting involved in politics.[1] Dun Emer products were first exhibited at the third Arts and Crafts Society exhibition in 1904, which was the best show it had held.[2] This became a landmark in the history of craftwork in Ireland. It gave a lead to a genuine spontaneous development of craftsmanship in weaving, embroidery, printing, enamelling, book binding, taking craftwork out of the cottage industry class and on to the international scene.

The emphasis was on Irish tradition, with Irish hands working on Irish materials. There were links with the Gaelic League and as well as crafts they taught the Irish language. But Dun Emer was in fact an importation to Ireland of the ideas of William Morris. There was also about it an element of 'Women's Lib'. Evelyn Gleeson had in her youth been a member of the Ladies National Land League, and later on in London, Chairwoman of a women's club called the Pioneers. Dun Emer was to be run by women: Evelyn Gleeson as manager assisted by the two Miss Yeats.

The story unfortunately is of an uneasy partnership and of a quarrel which engendered great bitterness. Nevertheless it was a gallant venture and in ways that mattered it was a notable success. Dr. Henry's involvement was most active in the early stages. All through his forestry training he kept in close touch with Dun Emer affairs. At the time when he accepted H. J. Elwes' proposition for their joint work on trees, he said it would bring him in contact with wealthy people who would be customers for art work.[3] But as time went on and his own work became more pressing, and Dun Emer became well known and other advisers took a hand, Henry's informal connection with the centre diminished. In 1908, the year of Henry's second marriage and his appointment to a post at Cambridge, there was a final break at Dun Emer between Miss Gleeson and the Yeats. They formed two independent concerns and each set off to a new start. That is as far as this paper proposes to go.

Evelyn Gleeson was a very old friend of Augustine Henry, one of a group formed in student days. She was two years older than he and at this time they were both in their forties. It was through her that he had met his first wife, who had died of consumption. Evelyn herself had some long standing complaint that may have been a form of tuberculosis. Henry was much concerned about her health, thought London air was bad for her, and was anxious to get her settled in Ireland.

They were both patriotically anxious to do something for Ireland. Henry saw a field there for scientific forestry under the new Department of Agriculture and Technical Instruction. It so happened that the Secretary to the Department was a cousin of Miss Gleeson, T. P. Gill. She gave Henry an introduction to him. Nothing immediate resulted from this, but in 1902 Henry still had hopes. He wrote to Evelyn "I owe to you the forestry, you owe to me the settlement, so we are quits".[4] The settlement was Dun Emer. In her own account of the beginnings, Miss Gleeson said that the idea of a craft centre in Ireland had been discussed for some time among a group of friends.[5] If it was not entirely Henry's own idea it was he who first got it off the ground.

In January 1902 when Henry was laid up with a cold, he sent Miss Gleeson a note, "I want to talk to you concerning our schemes".[6] These schemes first turned on carpet-making. Evelyn was a painter, chiefly of portraits, but she had also studied carpet design. There was a family interest in carpets through the Athlone Woollen Mills, founded by Evelyn's father to create employment. Carpet-making was already being done in County Donegal, as a cottage industry. The intention was that the craft centre would train workers and create jobs, as well as raising standards.

But they did not mean to limit their activities to one craft. They looked round for other recruits. Various names are canvassed in their letters. This is where the Yeats came in. Henry only knew them slightly, Miss Gleeson rather better. She had been secretary of W. B. Yeats' Irish Literary Club and they all went to gatherings of the London Irish. The Yeats' mother had died in 1901 and their father and brothers by then were tending to centre on Dublin, exhibiting their paintings there and W. B. was producing a play. It would suit the two sisters to move. The craft centre plan gave them the opening they needed, and they themselves seemed just the people to make it work.

Susan and Elizabeth Yeats, who were always called Lily and Lolly, were a direct link with Morris. Lily had learnt embroidery from Morris' daughter and had worked all the hangings for a four poster bed at Kelmscott.[7] She had become May Morris' assistant and trained others. Lolly was an experienced teacher of art.[8] The only snag about the Yeats was that they could not bring in any money; in fact they could not afford to join without financial help.

In April they held a preliminary meeting: Dr. Henry, Evelyn Gleeson, her sister Mrs. Constance McCormack, and Lily and Lolly Yeats.[9] They drew up articles of association. There is a draft of these in Henry's writing and a fair copy in Miss Gleeson's.[10] Clause 7 dealt with the Yeats' problem. After providing for sharing out the profits if any, it goes on: 'in case the profits of the Society do not exceed £125 annually for each member, that £250 be made up to the two Miss Yeats, the sum required being taken out of the capital, and such sum be reckoned a loan to the Miss Yeats until such time as the society gives profits large enough to enable them to pay the loan back.' This seems to have been intended as a delicate way of paying the Yeats wages while treating them as partners.

In view of what happened afterwards, it is worth quoting a letter written by Lolly Yeats at the time.

> "My dear Miss Gleeson [they never at any time called her Evelyn], Lily has read the suggested articles of the Society and approves very much of them. The only thing is are not you according to them to have rather too much to be responsible for? - the rent and keeping up of the whole house for two years. We have no suggestions to make - things may occur to us but thought they seem very good rules."[11]

Such was not the opinion of an older friend of Miss Gleeson. This was Alexander Millar, a follower of Morris, and like Morris a versatile craft worker. He had taught Evelyn design and praised her aptitude and colour sense. Like Henry, he evidently thought extremely well of her abilities, but thought her too generous and liable to be imposed on. He considered this scheme for the craft centre very one-sided and unfair to her, and in general crazy. For instance of Clause 16, which made each member independent in her own department, he wrote prophetically: "I can see endless openings for dispute. This clause has the mark of the artistic temperament all over it, but it won't work."[12]

It is strange to me that in the face of Alexander Millar's discouragement Evelyn Gleeson had the nerve to carry on, and Henry let her. It was a serious responsibility to take. It could be that Dr. Henry was thinking mainly of her health. He was prepared to shoulder the financial risk. He undertook to pay £250 two years running, which covered the Yeats' liability. He also made some short-term loans for capital expenses.[13] They talked of finding other subscribers, but none seems to have materialised. The rest of the money was put up by Miss Gleeson and Mrs. McCormack. Rent and household expenses came to about £300, but they would have had to spend money on these anyway. The sums involved do not sound large now. A figure that has been suggested to me as today's equivalent of Henry's investment,is eight to ten thousand pounds.

The plan for the craft centre rapidly took shape. The crafts of weaving and embroidery were covered by Evelyn Gleeson and Lily Yeats. Lolly Yeats cast round for something different that she could do. She considered furniture making, then thought of printing. Alexander Millar was consulted again. After a talk with Lolly, Henry wrote to Evelyn: "Elizabeth would like to learn the printing, and would appreciate seeing the Millars and how they work it. It is important to get her to do something definite: the furniture is very experimental."[14] Mr Millar on being asked, replied, "Of course I shall be glad to show you my press but after what I have said you will understand that it will be without enthusiasm."[15] Lolly seems to have met with more encouragement from Emery Walker, a prestigious name in typography and the only person she mentions in her own account.[16]

They had to find a house and again it was Henry who jotted down on paper the points to bear in mind. It should be in the country but near the end of the tramline. It must have piped water. The drains must be inspected. Embroidery could be done in the drawing-room and this could also be a place to hold receptions for patrons. The dining-room could double as a sitting-room, and perhaps members would be content to use their bedrooms as their private sitting-rooms - the term bed-sitter had not yet been invented. Outhouses could be used for printing and weaving. A lady-gardener might be added to the craftswomen.[17] Evelyn Gleeson went to Dublin and found a place that fulfilled all these requirements: a dignified eighteenth century house beyond the tramlines but near Dundrum station. It was called Runnymede so they renamed it. They had been thinking about names. 'Dark Rose' was one that had been suggested, but Alexander Millar said it was too like 'dark horse'.[18] The name Dun Emer was perfect: the stronghold of Lady Emer, famed for her skill in embroidery and all housewifely arts.

In the autumn of 1902 Henry went to a forestry training centre in France and Evelyn Gleeson and her sister settled at Dun Emer. The Yeats' father had taken a house at Churchtown and they joined him there. It was a half-hour's walk from Dun Emer. One imagines they must have had a midday meal there, at any rate in bad weather. Their printing press came in

November. By the end of the year the craft centre was in business. There were new recruits: a Miss Clarke who taught carpet weaving; a lady gardener called Miss Douglas and a niece of Henry, May Kerley. About a dozen young local girls came as trainees and were paid small wages.

There may have been anything up to twenty people for a meal on any working day. The household expenses tended to mount. Miss Douglas was paid a salary, and Miss Clarke and May Kerley may also have been paid.

But if the expenses were higher than they had anticipated, they soon had some very good orders. Alexander Millar had warned them that it might not be easy to find a market for their work, but there at least he was wrong. Already in the spring of 1902 Lily Yeats had got an order from an American customer for an embroidered bedspread.[19] The opening of Dun Emer luckily coincided with the completion of Loughrea Cathedral, and they were commissioned to make for it 24 banners at four guineas each. These were almost all worked by the two Yeats, to designs by their brother Jack and his wife.[20] The weavers, for their part, wove a carpet for Donnybrook church.[21] Church patronage was always a mainstay. Dr. Henry thought their prospectus of 1904 "too churchy".[22] But they also made 'carriage rugs with coats of arms', sofa backs, cushions, portières, and all the drapes used in houses of the time.[23] They made some lovely embroidered dresses.[24] Henry ordered many small presents for friends, and for himself, a saffron tie.

There was immense interest in craftwork at the time. Dun Emer was news from the first. It was in line with fashion and with national sentiment. But success brought problems. In stock-market terms they were oversold. Their trouble was to keep up with the demand. Instead of being all one happy family, they were working under strain.

We do not now have to take sides in the quarrel. In the nature of things there must have been faults on both sides. But the information available up to now mainly derives from the Yeats. The series of letters written by Dr. Henry to Miss Gleeson enables us to redress the balance.

Artistically the Yeats were a great asset but financially they were a worry. Henry wrote to Evelyn Gleeson "I fancy they imagine perhaps that you have money or I have money, and it is much better to be absolutely frank with them."[25] He had to point out that fees for lessons given by Lolly were supposed to be paid into the general settlement fund.[26] The Yeats thought Miss Gleeson grasping,[27] but Henry wrote to her "I somewhat dread good nature, temporising with surrounding folk. So a poker-like rigidity of backbone is required."[28]

A letter from Alexander Millar to a magazine called *The House Beautiful* is the earliest mention of what was to be a recurring complaint. The Yeats had given an interview on the Dun Emer enterprise, taking all the credit for themselves. Mr Millar wrote that an article from which the name of Miss Evelyn Gleeson was omitted was like Hamlet with the part of the prince left out.[29] He evidently had forgiven her for ignoring his advice.

There is just one letter from Evelyn Gleeson herself. Dated in May 1903, it tells of a storm in a teacup. The Yeats had produced a sketch for a pressmark. Evelyn had said it was pretty but the drawing was feeble. Next thing she knew, they had got it engraved without any reference to her, and the first she knew of it was when Lolly showed it to the work girls. She still thought it feeble. She asked for a copy but Lolly got angry and said she

hadn't any. "It does not really matter", wrote Evelyn to Henry, "only that is the way things are done".[30] Henry wrote back soothingly that it was not very courteous of Lolly to keep her little pressmark secret, but after all the press was hers, just as the weaving was Evelyn's. He said "you are all sensitive creatures and don't get over trifles as easily as men do".[31] The first book from the Press, *In the Seven Woods*, came out in August 1903 without a press-mark, though among the Gleeson papers there are some loose sheets which have under the colophon a tiny woodcut of a round tower.

At the end of 1903 Miss Gleeson successfully applied to the Department of Technical Instruction for a grant. She was given £120 in consideration of Dun Emer's educational work.[32] In March 1904 the Yeats secured a grant of £100 through the Arts and Crafts Society, from a private fund controlled by Sir Horace Plunkett.[33] It came with a letter which very politely stipulated that an experienced person should be engaged to keep the accounts. Miss Gleeson was annoyed, because she thought the Yeats had been hinting that she was unbusinesslike, and her accounts were no concern of theirs. Henry telegraphed "Don't refuse!"[34]

In spite of these petty irritations, the changes they made in the summer of 1904 were not necessarily a prelude to a break-up. The original agreement had only been for two years, an experimental period.[35] Dun Emer was now so well established that nobody wanted to close it down. The Yeats however still had no capital to finance their departments, even though they took the £100 grant.

At this stage the Irish Agricultural Organisation Society took them under its wing. George Russell (the poet *AE*) had been Secretary by then for several years. He was an old friend of the Yeats. Dr. Henry and Evelyn Gleeson hardly knew him at that time, but Henry had confidence in the then Vice-President, Father Finlay.[36] On Father Finlay's advice they divided the centre into two separate societies on a co-operative basis. Dun Emer Guild, Ltd. and Dun Emer Industries Ltd., were registered as separate companies at the same address. The members of the Guild were Miss Gleeson and Mrs. McCormack and five of their workers. The Industries had a committee of shareholders with Miss Gleeson as President and Lolly Yeats as Secretary. In the course of negotiations Henry had written to Miss Gleeson "Don't give the Yeats any more money",[37] but she did take 75 one pound shares and so did Mrs. McCormack. Each of the Miss Yeats and seven of their workers had a one pound share. But Miss Gleeson's only function in Dun Emer Industries was that of a majority shareholder; she had no responsibility for the management. The Industries undertook to pay her a third of the rent of the house and a share of the cost of food, heat, light and cleaning.[38]

This more equitable arrangement worked very well for a time. In the next three years both the Guild and the Industries kept busy. The work of the Guild expanded. Norah Fitzpatrick, a discovery of Henry, came to do bookbinding and Emily MacCarthy to do enamelling. Evelyn Gleeson was much in demand for lecturing and judging. Some of the girls trained at Dun Emer went in the charge of May Kerley to teach handicrafts and Irish to groups at Killarney and Glenbeigh.[39] An agency for the rugs was established with Maguire and Edwards in Belfast. Both the Guild and the Industries exhibited regularly at the annual craft competitions at the Royal Dublin Society and in London with a Society for Artists at Work. In 1906 a rug from the Guild won a silver medal at an international exhibition in Milan.[40]

Dr. Henry by now was extremely busy himself. Working with H. J. Elwes on *The Trees of Great Britain and Ireland* meant visiting big estates through the length and breadth of both countries. Occasionally he snatched a visit to Dun Emer on his way to visit a plantation or deliver a lecture. Once he pursued a swindler who had bought rugs on credit and pawned them. The man was caught but could not pay up.[41]

He worried a good deal about Evelyn Gleeson. He knew the situation with the Yeats was not happy and that the centre was still not paying. He blamed himself for putting his friend in such a situation and more than once begged her to write off his loan and consider winding up. Her health had not improved, even in the pure air of Ireland. The Yeats in letters to their father and brother complain of her explosions of temper and even hint that she was drinking.[42] In fact she was never really well. But here in the end Dr. Henry was able to help. In London he had an influential friend, Alice Stopford Green, whose sister was married to a leading physician, and through her he heard of a new treatment being practised by a Dr. Almroth Wright. Dr. Wright was coming to Ireland for a holiday. He kindly agreed to break his journey in Dublin and see Miss Gleeson. The treatment, which was by inoculation instead of operation, took some time, but in due course it proved effective and Miss Gleeson enjoyed better health for the rest of her life.[43] She died only in 1944.

At the end of July, 1906, Henry's work took him right out of reach. Sponsored by some forestry enthusiasts, he went out to the pacific coasts of North America and Canada to study the trees and to bring home seeds of the western larch. Even in 1906 the west was still wild. He travelled by railways that were still being constructed, or by stage coach, stopping in lumber-camps and often sleeping in his clothes. On the way back he made a tour that took in Spain, Italy, Corsica and Algeria. He spent Christmas high up in the Atlas mountains. Letters from Dun Emer could not catch up with him. He did, however, make a useful contact for them in Boston which paved the way for exhibiting with the Boston Arts and Crafts Society.[44]

Back in London in January 1907 he was overwhelmed with a backlog of work. It was mid-February before he could get to Ireland. There had been a tragedy at Dun Emer; the sudden death in November of a nephew of Miss Gleeson aged only seventeen.[45] Evelyn was sad and unwell. Henry urged her to take a holiday, to go to Florence at his expense, an offer she was too proud to accept.

There had also been a family row among the Yeats. W.B. had been acting as literary editor of Lolly's press. They were bringing out a selection of poems by *AE* and could not agree on what to include. W.B. resigned. Their father and Lily took Lolly's side. The breach lasted from August till nearly Christmas, and in the intervening time Lolly went for six weeks to New York, but they patched it up and before August 1907 three more books came out.[46]

Among connoisseurs of craftwork the reputation of Dun Emer had never stood higher. In March that year their work was highly praised in a lecture on carpets given in the Museum by a Colonel Day.[47] Whether as a result of this or by mere coincidence, Miss Gleeson was approached by the Museum director, Count Plunkett, with an interesting and challenging commission. They had on loan an old Flemish tapestry, belonging to the Victoria and Albert Museum in London. Could Dun Emer make a copy of it?

On the 23rd of June 1907, Dr. Henry had written an urgent letter saying that now was the time to stop. Money was owing to the landlord and the bank, household expenses were mounting. It was foolish to incur more debt.[48] On

the 24th Evelyn Gleeson wrote to thank the Museum for the honour of the order, saying she was glad to get the chance of such a valuable study for her workers, and they would do it at cost price. She estimated it would cost £30 and take four months.[49]

The Museum commission may have just tipped the balance in favour of holding on. There were some other grounds for optimism. A company called the Irish Art Companions was being formed to market Irish work abroad.[50] An Irish exhibition was to be held in New York in January. There was some prospect of Miss Gleeson coming into some money under a legacy,[51] and presently some friends of her family showed an interest in the business end of the Guild.[52]

Meanwhile Henry's own life was at a turning point. He was appointed to a University post at Cambridge, and summoned to give evidence before a Departmental Commission in Dublin as an important expert on forestry.[53] Just before Christmas, 1907, he got engaged to Elsie Brunton, the altogether charming niece of his helpful friend, Alice Stopford Green.

At the New York exhibition in January, Dun Emer Guild and Dun Emer Industries both had stalls. Alas, they showed as rivals, not co-operators. Lily Yeats who travelled with their exhibits wrote home that Miss Gleeson had made disparaging remarks about them.[54] Lolly wrote to the papers to make clear that Dun Emer Industries were not the same as the Guild.[55] But when Miss Gleeson went on alone to Boston to take up the introductions provided by Henry, she showed examples of the printing and embroidery as well as her own rugs.[56]

She was back at Dun Emer by the beginning of April, in time to have the Henrys to stay for the last part of their honeymoon. Naturally at this time Henry saw everything in rose colour. He could not thank Evelyn enough for her goodness and kindness reaching back over many years.[57]

But the friction with the Yeats sisters was at last coming to flash point. What touched it off in the end is only guesswork. My guess is that it had something to do with the arrival of Miss Gleeson's friends the Smiths. They were Mr Harold Smith and his daughter Gertrude, possibly connected with a Mr Joseph Smith who was an able manager of the Athlone Woollen Mills. In April Mr Smith was there to give advice. In May the Yeats suddenly upped stakes and left, taking their press and their workers to another house.[58]

There was one last skirmish. Lily and Lolly wanted to have their cake and eat it, that is, they went on using the trade name of Dun Emer. They even called on Henry to authorise this. He got a telegram, "Russell and solicitor say we have a legal right to name please back us up urgent, Yeats"[59] But Henry came down firmly on Miss Gleeson's side, though he did suggest to her that she might offer a compromise and allow the name to be used for the press though not for the embroideries which were in direct competition with hers.[60]

Miss Gleeson's solicitor said the Yeats could not win. The name Dun Emer implied working in the house and the Yeats had left of their own accord.[61] What settled the dispute in the end was simple. The Yeats owed Miss Gleeson money. She agreed for the sake of peace to write off a debt of £185.[62] They then withdrew their claim to the name and adopted that of 'Cuala'.

The tapestry for the Museum took twelve months to complete instead of four, and the price asked was £60 instead of £30, They were paid £55.[63] The

tapestry now hangs on the staircase of the National Museum in Kildare Street, and is a lovely piece of work.

Henry's informal business connection with the Guild now came to an end. He and Elsie always took a friendly interest. They held an exhibition of rugs at their house in Cambridge. The Dun Emer Guild carried on for many years more. It made carpets for Aras an Uachtaráin and for the Council room of the R.D.S. Some of its embroidery can be seen in the Honan chapel in Cork. In 1932, the year of the Eucharistic Congress, a Dun Emer carpet was presented to Pope Pius XII. That was two years after Henry's death.

NOTES

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3. Henry-Gleeson letters; 19.5.1903. National Library, Dublin.
4. *Ibid.* 28.8.1902.
5. Gleeson papers.
6. Henry-Gleeson letters; 20.1.1902.
7. Ian Bradley (1978). *William Morris and His World.*
8. Gleeson papers (application for Grant).
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11. *Ibid.* Letter from Lolly Yeats.
12. *Ibid.*
13. Henry-Gleeson letters; 20.7.1902, 7.11.1902, 2.1.1903 and 20.11.1903.
14. *Ibid.*
15. Gleeson papers.
16. Liam Miller (1973). *The Dun Emer Press, later the Cuala Press.* Dolmen Press, Dublin.
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19. *Ibid.* see note 11.
20. Jeanne Sheehy, *op. cit.*
21. *Dun Emer Prospectus* (1904); Liam Miller, *op. cit.*
22. Henry-Gleeson letters; 26.1.1904.
23. *Dun Emer Prospectus* (1904).
24. Gleeson papers.
25. Henry-Gleeson letters; 29.1.1903.
26. *Ibid.* 18.12.1902.
27. William M. Murphy (1978). *Prodigal Father.* Cornell Univ. Press, New York. pp. 242, 260.
28. Henry-Gleeson letters; 20.7.1902.
29. Gleeson papers.
30. Letter from E. Gleeson enclosed in one from A. Henry, Henry-Gleeson letters 24.5.1903.
31. Henry-Gleeson letters; 2.10.1903.
32. Gleeson papers and see letter to E.G. 7.3.1904.
33. *Ibid.*
34. Letters in Gleeson papers; 4.3.1904.
35. Letters in Gleeson papers; 9.2.1904, and 15.11.1903.
36. Letters of 14.9.1904, 29.9.1904 and 3.10.1904; Gleeson papers.
37. *Ibid.* 27.9.1904.
38. Liam Miller, *op. cit.*
39. Letters in Gleeson papers; 28.8.1904.
40. Gleeson papers. A photograph of the medal was used in the Dun Emer letter heading.

41. Henry-Gleeson letters; 24.3.1905.
42. William M. Murphy, *op. cit.* p. 242.
43. Henry-Gleeson letters; 22.8.1905, 5.2.1906 and 30.3.1906.
44. Letters in Gleeson papers; 17.11.1906.
45. William M. Murphy, *op. cit.* p. 308.
46. Liam Miller, *op. cit.*
47. Gleeson papers; cutting of March 8, 1908, source unknown.
48. Henry-Gleeson letters; 23.6.1907.
49. Correspondence, National Museum, Dublin.
50. Gleeson papers.
51. Letters in Gleeson papers; 14.6.1906.
52. *Ibid.* see also 20.4.1908 and 13.6.1908.
53. Report to Department of Agriculture, 1908.
54. William M. Murphy, *op. cit.* p. 328.
55. Cutting from *Freeman's Journal*, Dublin, n.d. Gleeson papers.
56. *Boston Herald* 8.2.1908 and *Boston Pilot* 15.2.1908; cuttings in Gleeson papers.
57. Henry-Gleeson letters; 20.4.1908.
58. *Ibid.* 8.5.1908.
59. *Ibid.* 25.5.1908.
60. *Ibid.* 28.5.1908.
61. *Ibid.* 1.6.1908.
62. *Ibid.* 8.6.1908 and 13.6.1908.
63. National Museum, Dublin.

An Irish Florilegium. Wild and Garden plants of Ireland. Watercolour paintings by Wendy Walsh, introduction by Ruth Isobel Ross and notes on the plates by Charles Nelson. (Thames and Hudson, London, 1983. UK £60.00)

This is an imposing book which all members should see and, if possible, buy. It is finely produced and spaciously laid out, the 48 plates hand-tipped in.

The plants included are the personal choice of the authors; 17 are natives, the rest Irish cultivars or plants found by Irish explorers or botanists. Inevitably, each of us will have regrets that these exclude A, B or C, nor are all the garden plants available commercially. But one hopes that their inclusion here will hasten the day when they are.

Mrs. Ross' 24-page introduction sets the scene adequately, if not always unerringly in detail. Dr. Nelson's text, facing each plate is in his usual scholarly yet readable style and often contains new information he has found in his diligent researches, notably in manuscripts. These sources are duly listed at the end, but there is no proper index at all. This is an insult to the considerable amount of excellent material to be found here, which at best will be hard to trace, and much of which must therefore lie unsuspected, seriously retracting from the value of this work. Is it too late to get one produced? The length of the various descriptions varies greatly, and it is a pity the shorter ones were not considerably amplified, not just to fill the void, but since in most cases there was, is, more that might well have been added. By contrast a few descriptions exceed their allotted page and spill over!

But it will be the plates that most people will notice first, and which make this book memorable. Mrs. Walsh's style grows on one, and each time I open this book, I am charmed again. I began to note those I specially liked, but the list grew far too long, and there is not a bad one among them. This achievement is all the more remarkable, since all were painted in three seasons, between 26 April 1979, and 31 August 1981. All have the source of the material stated. The notes on them were written in the four subsequent months. A few of those of wild plants are embellished by the addition of some sort of accompanying vegetation, and a very few have details of flowers etc. added. But most are just of the sprig or plant itself, their poise, character, shown with great delicacy.

Apart from the charm of the paintings, and the good material that only those who read the text can discover, this gives a useful glimpse of the contribution Ireland has made to botany and horticulture. The authors and publishers are to be congratulated on this splendid production, and the Bank of Ireland thanked for its support.

DAVID McCLINTOCK
Bracken Hill, Platt, Kent

PETER BARR - A GREAT NINETEENTH CENTURY NURSERYMAN

By the late GEOFFREY TAYLOR

Editorial note. This article was written about 1950, probably for a radio broadcast, but as far as can be ascertained it was not published. The original manuscript survives in the possession of Mrs. Mary Taylor, Old School House, Colwinston, South Glamorgan, who has kindly given permission for publication. I have made some very minor alterations, and added the footnotes.

E. C. Nelson

The name and fame of gardeners tends to be quite grotesquely neglected by an ungrateful public - as witness the pages of the *Dictionary of National Biography*.

Some gardeners are, indeed, remembered as scientists, and some because they gained a reputation also in other and perhaps less important fields. But in general, the most eminent horticulturist receives after his death no more than a brief obituary in *The Gardeners' Chronicle*, and possibly a paragraph in *The Times*. And among this neglected class, the most neglected are the professional gardeners. Of all the great nineteenth century nurserymen - men who happened to earn a living by their gardening skill, learning, and enthusiasm - only Thomas Rivers and James Veitch find a place in the *D.N.B.* Yet these nurserymen were of the first importance in the history of gardening - far more important than were their counterparts, the professional portrait-painters, in the history of art.

I had the arduous good fortune, thanks to Lady Moore and her housemaid, of going through a quantity of letters received by Dr. David Moore[1] and his son, Sir Frederick Moore, who were, between them, for eighty-four consecutive years directors of the (Royal) Botanic Gardens at Glasnevin.

Amongst this miscellaneous correspondence - from the Hookers, the Balfours, the Ellacombes, Charles Darwin[2], William Robinson, Miss Willmott, Spruce of the Amazon,[3] and who-not besides - was a sequence of letters from Peter Barr, of what was then Messrs. Barr and Sugden, 12 King Street, Covent Garden.

What first attracted my eye to these letters was their calligraphy - at once beautiful, bold, and easy to read. In the whole collection, no other script is so pleasant - Professor Lindley is dashing, Darwin is disjointed,[4] Richard Spruce is economically minute, but Barr's penmanship is distinctive and stylish. On reading the letters, one is led to suspect that the handwriting portrayed the personality - that here, for a moment, one is in touch not only with a great gardener but with a man whom it would have been a delight and a privilege to know, even if plants were never mentioned.

Herbert Barr, to whom I wrote, kindly provided me with the outline facts of his grandfather's life.

Peter Barr, then, like such a disproportionately large number of important gardeners, was a Scotsman - born at Govan in April 1825. Again like so many Scottish gardeners, he moved south, and in 1861 founded the firm which still continues in his family at the original address in London. He retired from the business in 1896 and in the next year he was one of the original recipients of the

Royal Horticultural Society's "Victoria Medal of Honour" - the highest and most coveted of all gardening awards.

After his retirement, Barr, who had already travelled widely in Europe, set out at the age of seventy-two on a world-tour which lasted seven years. On his return, he settled at Kirn near Dunoon in his native land - where he created a new garden when he was over eighty, and where he died in September 1909.

During his long life, Peter Barr was best known for his work on daffodils. In the eighteen-eighties he began his expeditions to Spain, Portugal, and the French Pyrenees, whence he brought into cultivation many wild species of *Narcissus*. But for many years before that, he had been one of a small group of daffodil enthusiasts which included the Reverend G. H. Engleheart and the Irish 'Seedsman and Florist' William Baylor Hartland of Cork. Barr was friends with both these men, but Engleheart and Hartland had something of a quarrel over a bulb catalogue in the pages of *The Garden* - gardeners being no less quick-tempered and touchy than ordinary men - and Hartland complained with true Irish rhetoric that "the fangs of a bear, the tusks of a wild boar, do not bite worse or make deeper gashes than his goose-quill". In a way, looking back to the great wars of Robinson, and Farrer, and Miss Willmott, one regrets that the days are past when so much horticultural heat could be engendered in public.

Barr himself published in 1884 a fifty-page booklet with the rather fanciful title *Ye Narcissus or Daffodyl Flowre, and hys Roots with hys Historie and Culture*. The pamphlet's contents, however, are both more serious and more valuable than this mock-mediaevalism might lead one to expect. Barr was only lightly touched by the Gothic Revival, but he had deeply studied the botany, distribution, and culture of the daffodil. He was well-read also in its garden history and literature from Parkinson onwards, and he gives a catalogue raisonné describing all the known species and garden varieties - illustrated with wood-engravings from drawings by his daughter. The catalogue, which claims to be "a compleat list of all the kinds grown in English gardens" includes six hundred names as against the eight thousand published by the R.H.S. in 1948. Of these, probably not one per cent - except for the wild species - could be found in any bulb catalogue of the present day.

Of the letters from Peter Barr that I found in Lady Moore's old packing-case, the first is mainly concerned with daffodils. It is dated April 4th, 1874, and it was written to Dr. David Moore, the Scottish-born Director of the Glasnevin Gardens. It is chiefly concerned, as are most of these letters, with intricacies of nomenclature and classification. But at the end Barr says - and a glimpse of his personality appears in the saying - "I send you what perhaps you will laugh at me for sending and what perhaps you will be delighted to possess. It is the double Pseudo-Narcissus. I have been in quest of it for years and have only been able to get possession of it this spring".

Barr was so famous, so easily first at that time for his work on the genus *Narcissus* in its garden aspects, that he was affectionately known as "the Daffodil King". He had other interests, however, giving long and close attention to lilies, paeonies, irises, and hellebores - and it is in the main with hellebores that all the rest of this collection of his letters deals.

He begins a letter to Dr. Moore on March 9th, 1878, "Dear Sir, I have taken up Hellebores, and I do not mean to lay them down till I know all about them. For this purpose I am begging everywhere plants, and I am buying everywhere so that between begging and buying if I can get all the representatives in the Botanic Gardens of this country, and buy all I can in the Continent and elsewhere, I shall

have a collection which can be worked upon and something will be arrived at". It was a confident and ambitious enterprise, undertaken in a pure spirit of enquiry and a passionate love of plants - he could have devised less laborious ways of making mere money. "Assist me what you can", he goes on, "and in return, when I get the thing right, the whole collection is at your service for your gardens. I want you to send me one plant of every sort you have if you can spare them, for my collection. Do what you can for me and I shall be for ever grateful".

Just over a week later, on March 18th, he writes, "Your grand collection arrived in splendid condition". But this collection was apparently of flowers only, not of roots. Indeed how could it have been of roots, even allowing that goods travelled by rail more quickly in those far-off days than they do now. The letter goes on, "I am greatly indebted for your promise to let me have one each of all your collection in the autumn; but cannot you do so now. A bird in the hand is worth two in the bush" - and which of us has not lost plants because we had not the courage to say that - "the ground is fixed for my collection. Try if you can oblige me now".

One hopes that Dr. Moore did oblige him, but whether he did or not must remain unknown. The next letter is a year later - March 15th, 1879. "My dear Sir", it begins, "How can I thank you for your kindness. Helleborus purpurescens from your son is an inestimable gift. While unpacking the flowers Mr Robinson of The Garden office came in and begged specimens for sketching. I was just preparing to send off a set to have sketched for myself, and take the other set home to compare with my plants: therefore I was obliged on Robinson's account to go into the question of nomenclature, and with the help of Baker's monograph which appeared in The Gardener's Chronicle and the monograph which appeared in The Garden, you will I am sure not be offended at my trying my 'prentice hand on your Hellebores and their names". And by way of underlining the word 'prentice and of softening the impact of the five highly controversial pages in which Dr. Moore's taxonomy is ruthlessly criticised, he tells a story of "Willie Anderson of Glasgow". "After retiring from the ministry he went to live at Motherwell, where lived a decent good-living man who was much pestered by the intrusive visits of a young missionary. One day he appealed to Willie for advice, who replied - 'I dont like these apprentices at all. Take no notice of him. Keep your mind easy and take your glass of whisky as you have been accustomed'." Dr. Moore, a fellow Scot, doubtless laughed at that story.

The "Mr Robinson" who came in to beg for specimens, was of course the great gardener, William Robinson, who was born in Ireland in 1838 and who died at Gravetye in 1935. The Baker whose "monograph" is referred to, was the Yorkshire Quaker, John Gilbert Baker, F.R.S. (1834-1920), who was for many years head of the Kew Herbarium. And Dr. Moore's son, who was so cordially thanked for the specimen of *Helleborus purpurescens*, was Frederick, later Sir Frederick Moore, then aged twenty-two, and destined in the autumn of that same year to become director of Glasnevin on his father's death.

This is the last letter addressed to Dr. Moore. The next, dated August 25th, 1880, abandons the old opening "My dear Sir" - customary as an eighteenth century survival even among intimate friends - and begins with "Dear Mr Moore". "Anemone fulgens, have you this?" he asks, "If not I will send you some. It is the finest of all the Anemones of Southern Europe. I think you have a weakness for Daffodils. If so let me know what you have and I will add to your collection". So ingratiating was this great gardener to the new and very young director. Later in the same letter, Barr asks "How about Flag Iris? are you well up? look at my catalogue, a copy will be posted tomorrow".

The reference to flag iris and the catalogue seems to have caused some misunderstanding, for the next letter, dated January 20th, 1881, begins with a hint of asperity -"My dear Sir, My offer of the Iris was made, and I expect you to accept it, on the conditions noted in my letter, that you write out your own list and your own labels". There must be a letter missing in the series, but one assumes that the inexperienced director had offered to pay for the iris roots. Barr goes on to give the young man a brief lecture - "I have worked these Iris up into form, and I want you men of science to sit in judgement upon the work. And as you intend to make a speciality of the genus, my desire is that you start at the most advanced point, and thereby escape the drudgery. Life is short, and the way to make great advances is to start where another Man has left off. You have Baker's monograph and my collection, and there is no reason why you should not step beyond both of us. It would be a pleasure to me to learn that you had left me behind, and I am sure Baker would be proud to know that his work formed a platform". Barr tempered his firmness with flattery - "you men of science" - and his good advice with encouragement.

It was a most kindly letter, and was no doubt well received, for on April 6th of the same year familiarity is restored with "Dear Mr Moore", and we are back at the hellebores - "On Friday, if I can escape from London, I will have a day with the Orientalis group and put them right for a close study ... From the Orientalis group will come all our best decorative plants, though the Viridis section will hold their place with people of good taste, as a pie all quince is not so good as one with a little quince". One likes Barr's buoyant, humorous, self-confidence. And it was only at the weekends - and not always then - that he could leave his London office and get down to his living plants.

A brief note of February 7th, 1884, shows Peter Barr's interest in the history of plants. "This day", he writes, "the first Narcissus is in flower at Tooting - N. pallidus praecox. Parkinson saw it in England near 300 years ago, but it appears to have got lost, as no Author since Parkinson refers to the plant".

He is still pursuing hellebores, and asks "Can you send, so as to reach me on Saturday by parcel post or Mail train, specimens of all the Hellebores you have (not Niger) as I shall on Sunday have a good look into this family. Help me all you can". From a pencil endorsement in Frederick Moore's handwriting it appears that a dozen plants were sent. These did not assuage Barr's hunger. On February 12th he writes "My dear Mr Moore, Many thanks for your nice specimens, but cannot you send some more; this is not your full collection of kinds. I had a grand day amongst my plants on Sunday. Archer-Hind sent me his collection, and I saw how he and I stood". There follows a list of twenty-two varieties of hellebore that Barr believed to be in the Glasnevin collection. Whether he ever got them is not clear. A note of March 26th merely queries some of Moore's names - and it begins "My dear Sir", so perhaps he was still unsatisfied.

T. H. Archer-Hind, whom Barr mentions, lived at Coombefishacre House, Newton Abbott. There are a number of letters from him to Frederick Moore during the eighteen-eighties - all on the subject of hellebores, on which he was obviously an authority. But from them one forms no picture of his personality, as one does of Barr's.

After that last note of March 1884, there is a gap until February 19th, 1896, when Barr writes apologetically "I greatly admire your patience. My daughter was very long over the job, but I suppose the dull days were against her", from which it would appear that Miss Barr had been making some drawings - presumably of hellebores. The classification of these plants, both in their species and in their garden varieties, seems still to have been chaotic. Barr says, "I should like were

we to arrive at some opinion on the subject of this family, and it is important to do this quickly, as seedlings are now being produced and specific types will not be so easily made out years hence".

Nurserymen have been blamed by professional taxonomists for their carelessness about naming garden plants. It is quite clear that Barr was prepared to go to endless trouble - and to enlist the trouble of others - over a number of years, in hope of reducing the hellebores to some sort of order. At the same time he was continuing his work on the narcissi, and he asks Moore for any bulbs of *Narcissus maximus* that Glasnevin might have to spare. In exchange he says, "I have sent you 100 collected roots of Narcissus monophyllus. Plant it in the sunniest part of your garden, and keep it perfectly dry from June to October. Try it various ways. Miss Jekyll has just succeeded with it out of doors close to the roots of a tree where it gets no rain while the leaves are on the tree".

Miss Jekyll was a very great gardener. Peter Barr admits that he himself grew *Narcissus monophyllus* in a cold frame. I have never seen any of these beautiful little white daffodils in the Glasnevin gardens, so that those hundred collected roots seem to have left no descendents. As for myself, I paid one-and-sixpence a bulb for a very few *Narcissus monophyllus*, planted them with the tenderest care, said good-bye to them, and never saw them again. And yet the catalogues call them perfectly hardy.

The last letter - or the last that has been preserved - in this correspondence, is one of March 11th, 1886. Barr is still worrying doggedly at the hellebores - "You do not say why you differ with me in respect of Helleborus Bocconi. If you explain, I will no doubt find you a good reason for my opinion". His tone is more confident, his hand is no longer a 'prentice hand. But he, who had taken up the hellebores in the spring of 1878 with the intention not to lay them down till he knew all about them, had not yet, after nearly nine years, fulfilled his self-imposed condition. He was an essentially modest man, and he probably never did fulfill it. But if the nomenclature of our garden hellebores - the Christmas roses and Lenten roses and their relatives - those rather inexplicably yet undeniably attractive plants, has now been reduced to some semblance of order, the thanks must very largely go to the unrelenting persistence of Peter Barr.

Of Peter Barr himself I should like to know more. His grandson speaks of him as a true Scot - attending meetings of the Royal Horticultural Society in a tam o'shanter "and other distinctive dress". Lady Moore, on the other hand, remembers him in a broad-brimmed black hat, "looking very Spanish". However Spain and Scotland are to be reconciled, his letters show him as a humorous, persistent man, a great and original gardener, and a true lover of plants.

FOOTNOTES

1. These letters are now in the possession of Major-General F.D. Moore, Bunclody, Co. Wexford.
2. These letters have been published by E.C. Nelson and M.R.D. Seaward (1981). Charles Darwin's correspondence with David Moore of Glasnevin on insectivorous plants and potatoes. *Biological J. Linnean Society*, 15: 157-164.
3. These letters have been published by M.R.D. Seaward (1980). Two letters of bryological interest from Richard Spruce to David Moore. *The Naturalist*, 105: 29-33.
4. The letters were written by Charles Darwin's son Francis, who acted as amanuensis, and not by Charles Darwin himself.

GEOFFREY TAYLOR (1900-1956) - AN APPRECIATION

By RUTH ISABEL ROSS
Knockmore, Enniskerry, Co. Wicklow.

It was on a bleak winter afternoon that I first went to Hilton, Geoffrey and Mary Taylor's house in County Dublin. We hurried straight into the delicious book-room, lined everywhere it seemed, with volumes of poetry and rare old gardening manuals. As we thawed in front of a fire burning in a curious Victorian grate, Geoffrey appeared in the doorway, frozen after pruning, and threw a flower into my lap. "Smell that!" he said.

I saw his garden months, even years later. Three memories of it stand out. The rockery was on a dramatic slope and was planted in large groups forming huge daubs of colour. A *Clematis tangutica* grew happily up an old gate pillar, making an exquisite vignette. Best of all was the little walled garden full of his collection of old roses, the most beautiful place in the world in June and July and hidden for the rest of the year.

After Geoffrey's death I came across his unpretentious books, *Some Nineteenth Century Gardeners* and *The Victorian Flower Garden* published in 1951 and 1952. Modestly produced, with few illustrations and a stimulating text they were the exact opposite of a modern coffee-table book. They gave gardening and gardeners a new dimension.

Take *The Victorian Flower Garden*. This collection of essays explores unknown and interesting places in nineteenth century garden history with great scholarship and humour; and it tells a convincing story of exciting development. The age is usually thought of as stuffy and fossilised in so many spheres. Because of Geoffrey's poet's insight, for he was first a poet, we see it as a time of release and brilliance in the garden.

Some Nineteenth Century Gardeners concentrates on a few outstanding garden writers, never studied in depth before. Can such people possibly be interesting, we may wonder? Surely not, they must be far too busy instructing us about pruning roses and spraying potatoes. Geoffrey's perceptive and enthusiastic sketches give us the answer. John and Jane Loudon could be thought prosy or long-winded but he persuades us easily that they were gallant, adventurous and romantic. William Robinson was admittedly dislikeable but such a genius and to whom we owe so much. As for the enigmatic Reginald Farrer, he was not an enigma after all but an eccentric "poet manqué", and died almost a hero's death on a rainy Burmese mountain.

Sadly Geoffrey died as his work on garden history was becoming well known. The distinguished Miles Hadfield, author of *Pioneers in Gardening* and the classic *History of British Gardening*, was the recognised garden historian writing in the following decade. He paid tribute to these important books of Geoffrey Taylor, who was surely the forerunner of the several zealous garden historians writing today.

LADY MOORE

By GRAHAM STUART THOMAS
Briar Cottage, 21 Kettlewell Close, Horsell, Woking, Surrey

Whether anybody told me to go west when I was a young man, I cannot say, but Ireland, its people, gardens and its countryside have always beckoned me. I have been paying visits since the late 1930s, due originally to my friendship with Tom Blythe who was a fellow student with me at the University Botanic Garden, Cambridge. He was a nephew of G. N. Smith of Daisy Hill Nurseries, County Down. Shortly after the war I spent a fortnight or so in Ireland - only experiencing one wet afternoon - in June; the account of my travels to many famous gardens appeared in the Royal Horticultural Society's *Journal* in the year 1950. It included my first visit to Willbrook House at Rathfarnham, the home of Sir Frederick and Lady Moore.

Sir Frederick Moore died soon after I had met him; he had almost entirely lost his memory ("Some people, Graham, live too long", Lady Moore had said to me), but his work in horticulture, like that of his father, lives on. Between them they directed the National Botanic Gardens for 84 years.

I had, I felt, known Lady Moore through being acquainted with *Chaenomeles* - or Cydonia, as it was then - 'Phylis Moore', a rather sprawling plant, admirable on a wall, with fully double flowers of clear bright pink darkening with age to a vivid vermilion pink. It grew at Knap Hill Nursery in Surrey, for the chairman R. C. H. Jenkinson was also much attracted by Irish gardens.

In those days there were no speed restrictions in Dublin. I had hired a car and on receiving it from the garage was rapidly carried to the outskirts of the city, before daring to turn right or left. I was on my way to Mount Usher, which I must be sure to visit, Lady Moore had told me in a letter. I did not regret the instruction, and Mr. E. H. Walpole and I became good friends. Eventually I arrived at Willbrook. I have not forgotten the pleasure of my welcome, and the delight at meeting so renowned a gardener and plantswoman. It was a garden of about 3 acres, with a pleasant curving drive lined with good shrubs and trees. Only the beeches were of great age because everything else had been planted by the Moores. There were *Nothofagus dombeyi* and *N. antarctica*; *Abies magnifica*, *Picea breweriana* and *P. omorika*, and *Magnolia* x *watsonii*, that elusive and lovely hybrid whose powerful scent wafts across any garden. When seeds set - as they not infrequently do - the resulting progeny are always *M. hypoleuca* and not *M. sieboldii* which is thought to be the other parent. Both are specially fragrant. One plant that stays particularly in my memory was what Lady Moore said was the erect form of *Pyrus salicifolia*. The weeping form is well known, but I have never seen the erect form anywhere else. It seemed to be a true *P. salicifolia* - moreover the Moores were not likely to make a mistake about it - as silvery as the weeper, which rules out related plants like *P. elaeagrifolia*, *P. nivalis* and others. I wonder whether anyone else remembers this tree, and indeed whether it still lives, or was propagated.

Salix fargesii was there, and the coral-bark maple, *Acer palmatum* 'Senkaki', or as it was then known, 'Sango-kaku'. *Hamamelis mollis* had reached a great size and *Viburnum grandiflorum* was 13 ft. across.

Willbrook House was stone-built, a good solid building, sitting well in its garden. And everywhere were plants, gathered by those two keen spirits, though I felt that, knowing Sir Frederick's predilection for orchids and other greenhouse plants, most had probably been selected by Lady Moore. There was no doubt she had not only an eye for a plant, but knew how to place them in the garden. A great beech tree stood not far from the house, its side and roots fully exposed to the sun, resulting in very dry ground. "I always choose silvery-leafed plants for that sort of position" she said, and how right she was. There were *Cineraria maritima*, *Artemisia stelleriana*, *Centaurea clementei*, *Convolvulus cneorum*, *Phlomis* of several species and the great silver leaves of *Senecio doronicum*. This produces large orange-yellow flowers and used to grow well at Guincho, Northern Ireland, in that other pleasaunce of plants, Mrs. Vera Mackie's garden, but though they both sent me plants it would not live in Surrey. Not far from the house was a plant of *Jasminum parkeri* 3 ft. high and 4 ft. across, flowering freely. Along the sunny wall was the gooseberry-leafed rose, *Rosa stellata mirifica* from the Sacramento Mountains, New Mexico; the flowers are like those of a *Cistus* in magenta-pink. The species seems to have died out, but this form is in fairly general cultivation and quite hardy. *Carpenteria californica* was there, too, a specially large-flowered form obtained from Edward Woodall's garden at Nice; I suspect the good form grown today as 'Ladhams' Variety'is the same, for Ernest Ladhams had a way of appropriating to himself specially good forms of plants which he found in gardens, such as *Phlox decussata* 'Elstead Variety' and *Cimicifuga simplex* 'Elstead Variety' commemorating his interesting nursery, full of good plants. *Dendromecon rigidum* had romped up to 15 ft. or so, and the rare *Hippeastrum* x *acramanii* was at its foot. That uniquely apricot-tinted yellow rose 'Lady Hillingdon', with its contrasting dark coppery foliage enchanted me; it was the climbing form. "She is no good in a bed" said Lady Moore; "best against a wall".

I was at that time collecting the old roses and it gave me much delight to see *R. rugosa* 'Fimbriata' (sometimes called 'Dianthiflora' or 'Phoebe's Frilled Pink'); it is of pale pink with prettily fringed petals and a good grower. It thrives at Rowallane. Several other rare old roses were treasured at Willbrook: a huge bush of *R.* x *hibernica*, found in 1795 near Belfast, believed to be a hybrid between *R. canina* and *R. pimpinellifolia*; *R.* x *pruhoniciana* 'Hillieri', very tall, and *R. farreri* carefully placed in part shade which should always be given it if the foliage is to remain green. And then there was the heirloom which Lady Moore has handed down to us and which she named 'Souvenir de St. Anne's'. This is a nearly single sport of the original bush 'Souvenir de la Malmaison'; it originated at the Guinness family home St. Anne's which is now a public park with a large new rose garden. I was delighted to find, during my visit last May, that a large bed was filled with 'Souvenir de St. Anne's'. The bush forms of this rose are constant in production until the autumn, and I rank 'St. Anne's' above the original (named by the Grand Duke of Russia in honour of the Empress Joséphine's garden after her death) and its lemon-white sport, 'Kronprinzessin Viktoria'. Lady Moore was a regular exhibitor at the R.H.S.I. Rose Group Show usually, taking first prize for a vase of mixed old roses.

The old yellow Scots Briar was just going over, likewise several other of the same family including the grey-backed purple 'Mary Queen of Scots'. I remember, too, on one visit being greeted by the sumptuous blooms of some tree peonies, including 'L'Espérance' and 'Souvenir de Maxime Cornu'.

On another occasion I stayed a couple of nights at Willbrook which was a most comfortable home though a bit old fashioned. Nellie, the housemaid and Norah, the cook, looked after the whole of the house for Lady Moore. I was awakened soon after 7 a.m. with a large jug of hot water which Nellie brought up to me; she

Fig. 1. Lady Moore and Mrs. Connell in the garden at St. Catherine's, Leixlip. *Kirengeshoma palmata* on right and *Senecio* 'Sunshine'.

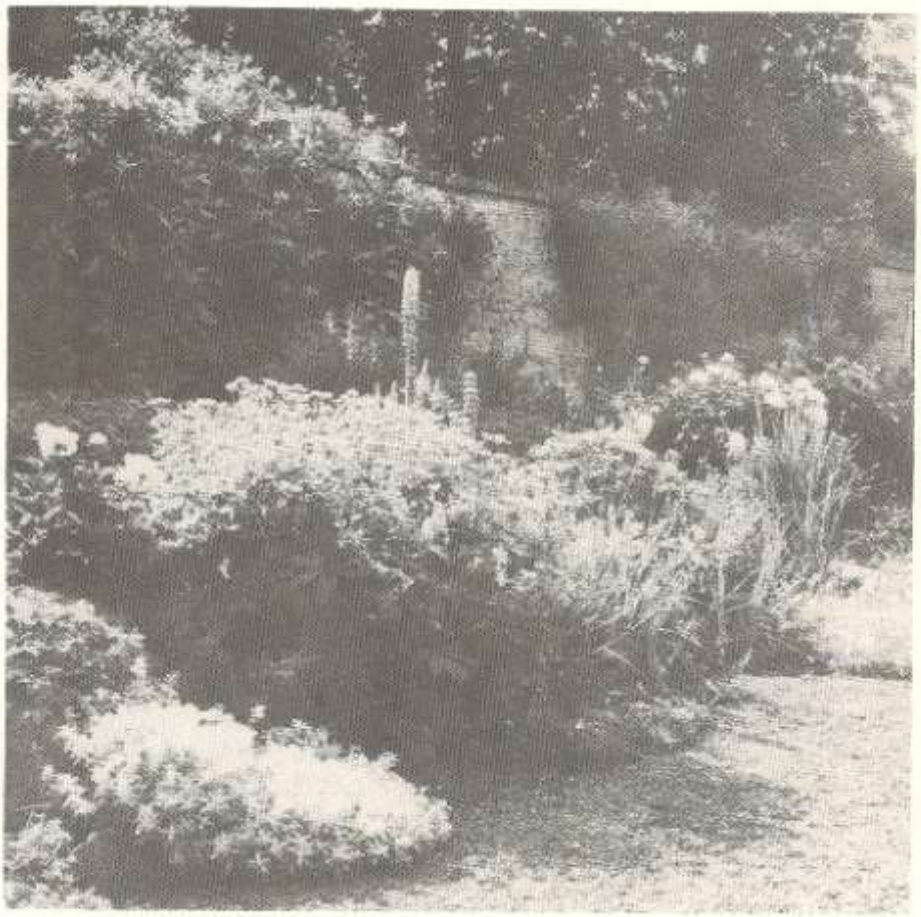

Fig. 2. Early morning at Willbrook House. *Veronica teucrium* 'Trehane' in foreground, backed by *Geranium psilostemon*, lupins and peonies. Note the way *Veronica* and pinks invade the path.

pulled back the curtains and let in the sunlight. On rising, what was my surprise but to look down into the garden and see Lady Moore out there picking raspberries for breakfast! She did not waste time nor was she tolerant of time-wasters. As far as I remember she kept one gardener and the whole garden was in good order. At the side of the kitchen garden was a broad gravel path, a broad herbaceous border backed by a wall on which were climbing plants. She did not waste space or opportunities! Her love of plants embraced tiny plants like *Veronica teucrium* 'Trehane' whose yellow leaves make so bright a contrast to the vivid blue flowers, *Geranium psilostemon*, bergenias, species of *Eremurus*, *Aster forrestii* whose orange eyes vie so strongly with the lavender-blue daisies. *Clematis macropetala* was on the wall, and also *Ribes laurifolium*. And in the shade was my first sight of that most beautiful small funkia, *Hosta tokudama* 'Variegata', its blue-green leaves striped with yellowish green. This had been a gift from Lady Burnett of Leys, at Crathes Castle, Kincardineshire, where it originated.

In 1955 Lady Moore took me to Miss Freeman's garden at Cooldrinagh, Leixlip - a garden well stocked with herbaceous plants including a light blue form of *Geranium* x *himalayense* (*G. grandiflorum*) which I have never seen elsewhere. I was glad to bring a plant over to re-stock Irish gardens last spring. There was another lovely visit to St. Catherine's Park, Leixlip, then the home of Mrs. Connell, now the home of Sir Cecil King Harmon. Here were more treasures and I have recorded a recent visit in the *IGPS Newsletter*. It was these several visits to Irish gardens which prompted me to start collecting the more unusual herbaceous plants, as well as roses. Irish gardens were full of them, to say nothing of Glasnevin.

Lady Moore came over specially on the occasion of the Sesquicentenary of the Royal Horticultural Society, bringing greetings from the Royal Horticultural Society of Ireland. She made it the opportunity of coming to see my garden with Mrs. Ruby Fleischmann, an old friend of both of us. Ruby asked for a plant of some interest which I had growing - I forget what it was - and Lady Moore said in a winsome way "Do you think, Graham, that plant might have a little brother?". This was Lady Moore: keen, kindly and with a good sense of humour. She had a great influence on Irish Horticulture and I bless her memory. We exchanged Christmas cards for some years but eventually they ceased to come from her. Like her husband she had "lived too long".

Trees in Rotterdam. Arboretum 'Trompenburg'. Julia Voskuil and J.R.P. van Hoey Smith. 1983. pp. 131; illustrated. UK£10 (this price includes postage - available only from Arboretum Trompenburg, Groene Wetering 46, Rotterdam, Netherlands).

This finely produced volume celebrates the formation of Foundation Arboretum Trompenburg and the opening of Trompenburg Arboretum to the public twenty-five years ago. The arboretum is much more than a quarter of a century old, having been planted during the past century and a half. It occupies an old estate in the Rhine-Maas delta not far from the centre of Rotterdam.

It is a remarkable arboretum of international importance and has been awarded a conservation plaque by the International Dendrology Society. The majority of its rare trees and shrubs were planted by the late James van Hoey Smith, whose son now manages the arboretum. It covers 5 hectares and contains about 2000 trees and shrubs as well as collections of *Iris*, hardy succulents, *Euphorbia* and *Sempervivum*.

The first part of this book tells the history of the arboretum and the surrounding estates. The final section (about 80 pp.) is a catalogue of the collections, and it is this part which will be of greatest interest to Irish gardeners. It is not a full catalogue, but a selective one, listing the more interesting plants within each section of the arboretum. It is beautifully illustrated with colour photographs, including some of plants in their native habitats - for example *Pinus balfouriana* in the Sierra Nevada. There are very brief descriptions of the plants and details of their history in Trompenburg.

This book will be invaluable to anyone visiting the arboretum (admission is free of charge, by card only which may be obtained by writing to the arboretum). It will also make a useful, colourful reference book for keen dendrologists.

The Ulster Countryside, by C. Douglas Deane. 1983. pp. 170; illustrated. Century Books, Belfast. UK£4.95.

Douglas Deane's Saturday column, published in the *Belfast Newsletter*, is read avidly by naturalists in Northern Ireland. He has been persuaded to cull articles from this column, and the selection appears in this fascinating book. The general theme has been subdivided into four. In the first section there are essays on Belfast, the site and city, including one on the great naturalist and gardener, John Templeton. In 'The Living Countryside', the author writes mainly about birds, while in the third section his subjects are people. There are concise pen-portraits of, among others, the Edgeworths, the late Sir Norman Stronge, and of J.P. Burkitt whose pioneering work on the behaviour of robins was carried out in his garden near Enniskillen. Finally there is a section on places, including Tollymore Park where the original plant of *Picea abies* 'Clanbrassiliana' grows.

There is plenty to interest gardeners in this book - people, places and plants. It also contains drawings and colour photographs. There are some strange typographical errors - I wonder what a "navel surgeon" does? - but such blemishes can be overlooked.

In this enjoyable book, Douglas Deane has garnered anecdotes and fragments of knowledge which, without him, might have been forever lost - he deserves our thanks, and I hope that there will be another volume of his vignettes, less hastily prepared.

ECN

Colour schemes for the flower garden, by Gertrude Jekyll (introduced and revised by Graham Stuart Thomas) 1983. pp. xxx, 159; illustrated. Penguin. UK£7.95.

Roses for English gardens, by Gertrude Jekyll and Edward Manley (introduced and revised by Graham Stuart Thomas) 1983. pp. xxvi, 166; illustrated. Penguin. UK£7.95.

The reprinting of Miss Jekyll's books has become a major industry in the past few years, but I am not complaining. Several volumes were reissued in 1982, the fiftieth anniversary of her death. Some of the reprints are simple facsimiles, but the two Penguin editions have additional material by Graham Thomas.

It is not appropriate to "review" the writing of Miss Jekyll, for the rose book was originally published in 1901 and that on colour schemes in 1908, and her views are so well-known that comment is superfluous. The value of these reprints lies in the Thomas additions. Each volume includes a short, partly biographical essay, as well as a glossary, providing modern names for some of the plants and correcting the orthography of others. When cultivars are no longer available, Graham Thomas has suggested suitable substitute plants. The other notable additions are sections of colour photographs. In the book on colour schemes, the first plate (opposite p. 96) shows the wonderful mixed border at Guincho, in County Down. The photographs of roses include older cultivars as well as views of rose gardens.

If you already have these two books in one of the many earlier editions, I can still recommend these reprints. They are well produced, although the quality of reproduction of the black and white plates is indifferent. Miss Jekyll's ideas are still valuable today, and there is much gardening wisdom to be gained by reading these works.

ECN

Flowering plants in Australia, edited by B.D. Morley and H.R. Toelken. 1983. pp. 416; illustrated. Lansdowne-Rigby International (5 Great James Street, London WCIN 3DA). UK£42.

The first Australian plants grown in Europe flourished in the Royal Garden at Kew, 210 years ago, and today a relatively small number of species from the cooler parts of Australia are well-established in Irish gardens. These range from stately eucalypts, to handsome Christmas bells. We have an affection for these plants, perhaps because they are difficult to grow, but we also appreciate the un-European textures, forms and colours which they add to our gardens. No European species can provide steel-blue leaves like *Eucalyptus cordata*, nor such vivid red bells as *Blandfordia*, and it amazes me to see *Correa* blooming on Christmas day, every year, irrespective of the weather.

To most of us, the flora of Australia is as unknown as the continent itself was three centuries ago. This superb book should help to correct that state of affairs. It is expensive, but it is worth every penny.

The volume is modelled on *Flowering Plants of the World*, edited by V. Heywood, which Oxford University Press published in 1981. It is essentially a botanical text, providing accounts of the plant families represented in the Australian flora, both native and introduced. Each family is treated in the same way - its distribution is noted (maps are sometimes provided), the botanical characteristics are described, there are notes on the classification of the family, and finally there is a general discussion of the family's uses. The book differs from Heywood's volume in two important ways. Keys are provided to enable us to identify each genus within a family. A list of references is also given, detailing additional sources of information and particular attention has been paid to the uses of native Australian plants by the aboriginal people in these references.

The delightful illustrations in the volume greatly enhance it. The majority of the plants depicted are native Australian species, but some aliens are also included. Most of the illustrations are black and white line drawings, but there are many fine coloured plates. The artists include June Morley, Ronald Adams and Ludwik Dutkiewicz. The quality of production is high; the text is clearly printed and the colour plates are finely reproduced. It is a thick, heavy volume, and the binding is robust.

The book contains a lot of purely botanical material, both in the text and the keys, but that does not mean that amateur naturalists and gardeners will find it overwhelming. I can recommend it to anyone with an interest in Australia and its flora; it will provide endless fascination, for it is a book to be dipped into again and again. Much of the information will be new, but there are illustrations of many familiar plants - *Eucryphia moorei* and *E. milliganii*, *Sollya heterophylla*, *Dianella*, *Correa pulchella* and *Drimys lanceolata*.

ECN

BBC Radio Ulster. The Northern Garden, edited by C. Cochrane. 1983. pp. 108, 34; illustrated. Appletree Press, Belfast. IR£9.95.

This book is well printed and brightly packaged. The cover proclaims that the volume contains "a wealth of practical information, including *Gardeners' Question Time* from Radio Ulster's Ulster Garden programme which deals with everyday problems encountered by amateur gardeners". A map indicates that the book will be of special value for gardeners living in Ireland, north of Wexford, Galway and Westport, and in Britain, everywhere north of The Wash and Aberystwyth except for the uttermost extremity of Scotland.

The chapters, written by Radio Ulster's gardening experts, cover garden design, hedges and shelter belts, lawns, roses, vegetables, fruit, ornamental trees and shrubs, and house plants. Each chapter consists of an introduction of about 2,500 words and a section of questions and answers. The editor remarks that "answers to specific problems are terribly [*sic*] important", and that this is the reason for adopting this particular format. But, radio programmes do not transfer to the printed page so easily, and much more thought should have been given to this well-known difficulty. Some questions are repeated in different guises in separate chapters, which is an utter waste of space. The answers range from good to facile.

The introductory essays also vary substantially in quality. The chapters on lawns, vegetables, fruit and roses are good and will provide gardeners with valuable advice; their authors could have been given more space, using the pages wasted by the questions and answers. The other chapters are superficial, to say the least. I do not understand why house plants are included as there is no difference in growing plants indoors anywhere in these islands.

The volume is illustrated with pen sketches and photographs. Those drawings, purporting to show sample plans for gardens, have no scales and are of little merit. The photographs generally are well reproduced, but some are purely space-fillers. On p. 45 is a grey splodge titled 'Cotoneaster', and a few pages later is a shot of camellias in flower labelled 'Rhododendrons in spring'.

Throughout the book the use of plant names does not conform to the conventions of nomenclature - cultivar names are used as specific epithets and *vice versa*. There is also some unconventional English - what is "year round-colour"?

This thin and expensive volume falls far short of other, less expensive gardening manuals. It does not live up to its title, nor the publisher's claims. There is nothing in the chapters that can be said to benefit gardeners in "northern Britain and Ireland". I feel that an excellent idea - we do need a book written for wetter, colder climes - foundered because of poor writing on the part of some contributors, a lack of careful thought about the radio material on the part of whoever conceived the book, and inadequate editing. In short, this book does little credit to the people or organizations involved.

ECN

Climbers and Trailers, edited by Julie Grace. 1984. pp. 114; illustrated. Lansdowne-Rigby International (5 Great James Street, London WC1 3DA). UK£8.95.

Climbers and Trailers, one of three books in the Reed Know Your Garden series, was originally published in New Zealand in 1973, but is now available in a new edition in Ireland and the UK. The book deals with climbing, trailing, rambling and ground-cover plants and these are depicted in 260 colour plates each with a brief description and notes on cultivation and garden use. The illustrations are preceded by 7 pages of general information, selecting the roses for special mention. A short discourse on types of climbers, including notes on *Clematis* completes the third section.

It is not true that only plants "in general cultivation in temperate climates" have been illustrated - but this is a bonus rather than a disadvantage. It has to be said that the photographs, usually 3 to a page, are very variable. Several are out of focus and some of the better ones are spoiled by lurid backgrounds. The fact that all the plates are standard postcard-size does not disguise these deficiencies.

Presentation is otherwise acceptable. The genera are in alphabetical order and the notes and plates easily referred to by number. No mention is made of the author, but his comments are relevant and concise. One or two oddities have crept in: "Climbing geraniums [we are told] is the common name used for trailing and climbing forms of hybrid zonal geraniums". Most gardeners know that zonal pelargoniums (*Pelargonium* x *hortorum*) are widely used as bedding plants and that it is the ivy-leaved types which come into the trailing category, but we are not all devotees of the genus! The plates, correctly labelled *P. peltatum* feature the latter, but while cultivar names are often disputed - even in the trade - 'Red', 'Pink' and 'Mauve' simply will not do. No such cultivars exist. Nor is "cute" a word that should ever be attributed to any plant whatever the hemisphere!

There are other disappointments; the ivies are uninspiring, the roses garish. We are shown a bunch of sweet peas and *Monstera* in a pot, as if being so well-known, they were not worthy of better treatment.

Special problems accompany the photography of plants like these. A close-up of the flowers gives us little idea of the habit and a photograph of the entire plant may leave us ignorant of flower form. A view from the middle distance may satisfy neither requirement, but is sometimes preferable! The editors have managed to strike more or less the right balance, although perhaps the large-flowered *Clematis* subjects could have been given the 'middle distance' treatment.

We are now familiar with genera such as *Cobaea*, *Campsis*, *Eccremocarpus* and *Thunbergia* through the seed companies and this book will serve to introduce the gardener to species he may never have seen or heard of before. As far as I am aware, there is no other popular book on the topic, and as such it fills a gap between books on more temperate outdoor climbers and the botanical treatment of vines in general. The publishers have rightly deduced that we are ready to learn about unfamiliar plants.

Climbers and Trailers could have been more imaginatively produced; the sections before and after the plates are probably superfluous, but the book will stimulate interest in these plants here, and I have no doubt that it will find a place in a new and important outlet - the book sections of rapidly-expanding garden centres in Britain. One of its most useful functions may be to initiate an interest where there was none before.

JC

LADY LEITRIM - an appreciation

The death of Anne Leitrim at the age of 91, marks the end of an era at Mulroy House in County Donegal. It was on the death of her husband, the fifth and last Earl of Leitrim, in 1952 that the property passed to his nephew, the Hon. Hedley Strutt, but from that date Lady Leitrim, who remained at Mulroy, undertook the management of the garden.

At Mulroy, Lord Leitrim had assembled an outstanding collection of rare and tender plants including the finest forms of species and hybrid rhododendrons. These grew in the Peat Garden, some distance from the house, where they continued to thrive until 1961, the year in which Hurricane Debbie struck the north of Ireland, and the garden at Mulroy was destroyed.

Undaunted by the devastation, and during the succeeding years, Lady Leitrim created a new garden near the house making use of some of the surviving plants. She also rescued self-sown seedlings and began to propagate from the remnants of the plants in the Peat Garden. In the course of the next twenty three years the garden grew. Each year visitors found new walks and fresh plantings in the woods. Primulas, meconopsis and celmisias grew in abundance; rare and tender rhododendrons such as those of the Maddenii series (e.g. *R. megacalyx*, *R. brachysiphon*, *R. taggianum*) flourished out-of-doors, and *Rhododendron stenaulum* and *R.rhabdotum* under glass.

In the year after the hurricane, Lady Leitrim suffered a serious illness which affected her for the remainder of her life, but in spite of this and many personal misfortunes, she continued to work in the garden and retained a sparkle which endeared her to everyone she knew. Without her courage and indomitable spirit the garden at Mulroy would have vanished long ago. Instead the newly created garden ranks amongst the foremost gardens in Ireland - particularly for its collection of tender rhododendrons "which grow like weeds", as Lady Leitrim claimed. Let us hope they continue to do so for undoubtedly these rhododendrons are synonymous with Lady Leitrim's name.

Jean O'Neill, 18 March 1984.

The Irish Garden Plant Society was formed in 1981 to assist in the conservation of garden plants, especially those raised in Ireland. It also takes an interest in other aspects of the preservation of Ireland's garden heritage.

This journal will be devoted to papers on the history of Irish garden plants and gardens, the cultivation of plants in Ireland, the taxonomy of garden plants and reports of work carried out by the society and its individual members.

The editorial committee would welcome manuscripts from members of the society and others. Typescripts should be on A4 paper, double-spaced and typed only on one side of each sheet.

Correspondence concerning the Irish Garden Plant Society, including applications for membership, may be addressed c/o National Botanic Gardens, Glasnevin, Dublin 9, Republic of Ireland, or to Dr. D. Willis, c/o New University of Ulster, Coleraine, Northern Ireland.

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Front Cover - *Romneya coulteri* by Dr. Norman Hickin.

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