

## Some Views on the Private Forests of Ireland, Past and Present

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When I received a letter from the Secretary announcing his intention of asking me to give an address at our General Meeting, my first inclination was at once to decline, because I should not think there is anybody in this room more profoundly ignorant of the technical side of the subject than I am myself, and so I must ask you to forbear with me as far as technicalities are concerned. Really, over the years, and they are long years now, in which I was born and brought up in this country, there is one thing which has always interested me enormously since the time I was a small child, and that is trees. All my stories, all my dreams as a youngster, had invariably something to do or say about trees. Trees were predominant. In after years when I was quite a young man this was further fostered by, first, my association as a colleague, and afterwards until his death as a very close personal friend, of a certain Irishman whose name may be familiar to some of you here, the late George Russell, more commonly known as "Æ." He, with that wonderful imagination of his, and he put a lot of it into poetry and a lot of it into paint, still further inspired me with an understanding of forests. They seemed to talk to him. They seemed to breathe to him. They seemed to tell him stories, and when I was married he gave me one of the most beautiful pictures which he ever painted, called "The Spirit of the Woods," which shows a nymph or fairy in a stand of Scots pine at night with the moon breaking through the clouds in a very heavy storm. That really gave one an idea of how close he came to them, though he knew nothing about the technical side of trees. What mattered was what they meant to him, and how they spoke to him.

What about the conifers which we are cutting to-day? As a young boy, shooting with my father, I saw a great many of these stands of conifers which we are now cutting, and which are so useful to us, growing at the best of the woodcock stage. I am going back now to when they were planted sixty, or seventy years ago. Why were they planted, and who planted them? They were planted by the big land-owners of the time, mainly with the idea of being cover for woodcock. That was the main idea. Each one wanted to have as good a woodcock shoot as the others, so they had to plant conifers, and it is these conifers which we are cutting to-day. That was the mainspring which encouraged them to plant these conifer stands. As time went on and as these trees grew to be large, they made a great mistake. They underplanted the cover with rhododendrons, dogwood and laurel, and made traffic impossible and thus defeated their own objects because they were never again much use as woodcock cover. Woodcock need clear opens in order to enable them to land and get away at night to feed.

As for the hardwoods—most of them were planted before I was born. They were generally planted from the decorative point of view, and in this respect I have some rather interesting data which refers to trees on the estate of Lord Ashtown at Woodlawn in the Co. Galway. There is a complete record in the form of diaries from the year 1702 until the year 1820, and reading through these we come across some very interesting items with regard to afforestation. From 1720 up to 1786 there seems to be no mention of the planting of conifers at all, but there is, every few years, mention of the planting of hardwoods, particularly beech—occasionally oak, but mostly beech. The two or three owners who covered that time

appear to have planted these purely from a decorative point of view. From the evidence available, it was during this period that the large quantity of beech was planted. Having eventually gone through all the formalities for felling, we obtained a licence for 998 beech which have been cut out during the last three years. All of these trees which I counted were round about 200 to 220 years old, and we cut them up in the mill. They had all practically to go for firewood, because 96 per cent. were rotten. This is a fact, for there was a record kept of any sound trees which were turned into baulks.

Another interesting place is Lord Crofton's estate at Mote Park, Co. Roscommon. This was a natural oak forest. Croftons came there about the year 1540 or 1550. It was a natural oak forest then, and had been for years and years before. The late Captain Sir Francis Crofton, in his private history of Mote Park, refers to this from the data which he had collected. That forest appears to have reproduced itself and to have kept on reproducing itself until a certain thing occurred. About the year 1800 the place became gradually full of ivy. At present every oak tree in it is covered with ivy. The whole of the ground is covered with ivy. There has been—as near as I could get to it from the specimens which I felled—no natural reproduction at all for about seventy or eighty years, or longer. It looks as though this parasite destroyed the chances of natural reproduction in the oak, but, strangely enough, it did not interfere with the other hardwood timbers, such as ash and sycamore. There is a forest of young saplings of both these species growing up, but there is no sign whatever of any oak reproduction except in one wood. It looks to me as though, with the advent of the ivy, the reproduction of the oak ceased. The first cutting of oak was in the year 1919, but when I dealt with the stand, which is between 400 and 500 acres, after the licence was granted, I cut out, of various sizes, about thirty trees and I made a close examination of them. The oldest tree I got was 342 years, as far as I could count. The youngest was 127. They varied in quarter girth at 4' 6" Hoppus from 15" to 31". Now, of these, two were very slightly decayed and they were not the oldest; eight of them were covered with ivy; two were free of ivy and these were much the best quality in timber value. The conifers, which I know were planted between seventy and eighty years ago, were planted on the lowlands where evidently there had been no oak before and generally consisted of Scots pine. These had not done so well—they were planted mostly on bog—and had only reached 11" to 16" quarter girth after eighty years. There is a curious feature in the silver fir on this estate. There was a certain amount of magnificent silver among the oak on the high ground. They were planted at an altitude of 420 ft. and the best of them had grown to a quarter girth of 44" to 47" Hoppus at 4' 6". There was no regeneration of them at all. The only regeneration that is going on there is ash saplings and sycamore, nothing else.

Another place is Kylemore Abbey. I inspected this with Mr. Grant, who was a very good friend of mine and one of your Inspectors. It is most interesting. All the trees at Kylemore were planted by the late Mitchell Henry round about eighty years ago. They did magnificently on the slopes of the mountains up to 300 ft. above the lakes. Once you get over 300 to 400 ft. they go into rubbish, are crooked and stunted. There are some rather good conifers in places. The silver had done extremely well, Scots well, larch moderately well, but really best of all was the *Pinus insignis*. Some of these had grown to an enormous size and there were huge trees up to 48" and 49" quarter girth, but any of them which he had planted above 300 to 350 ft. had never developed at all. There was a certain amount of first-rate rare pines, Himalayan spruce, *Abies*

nobilis and Pinus peuke along by the lakes, but the hardwoods have done very badly.

Loughcrew in Co. Meath has some interesting woods. Here we had larch mostly, which I know were planted seventy-five years ago. At the stage when I looked at it, it was one of the finest stands of larch left in Ireland. They are cutting it now. Some of the trees are measuring, when cut, up to 190 cubic feet of commercial timber. In one particular wood the larch which were planted on eskers are mostly unsound for 15 ft. of the trunk, while trees planted at the same time on the lower or wet ground are sound as bells. Generally however, the larch thrived here in the most extraordinary way. I do not suppose there are many other stands of larch in Ireland equal to the size and quality of this. Scots and silver matured extremely well here also. The spruce is rather rough and small, and did not do well. I am talking now about Meath land, of really good quality.

With regard to the present, to my mind the future of afforestation in this country depends entirely upon the Forestry Division. The days of the big landowners are gone. The days of the big estates are gone, and it was on these big estates that we found our timber and on which our timber was planted, and unless the matter comes entirely into the hands of a Government Department, unless it becomes a State matter, I cannot see that there is any hope of the private individual doing very much more for forestry in this country. I think the private owner, taken as a whole, is a thing of the past. Either the big estates are being broken up or have been broken up, and the costs at the present time of managing these estates are out of the range of a private individual. As a basis of comparison, in 1898 the average rate of income tax was 6d. in the £, rates amounted to 1s. 3d. The average valuation of the woodlands which I have taken was 6s. per acre, some being low bog, some high land, some ordinary demesne land. Rates average to-day 15s. 9d. in the £, income tax—under the headings of A and B—is approximately 8s. 6d. in the £, so that there is a total of 7s. 6d. an acre to be paid out every year in rates and income tax, and I do not think there is very much chance of any individual being able to afford this in the future.

Then there is the question of costs of replanting. The Department give a grant of £4 an acre for a block of 5 acres. In the last two years the cost of any replanting which I have done has worked out at £16 an acre. With the present cost of wages, fencing, draining, £4 an acre is of very little assistance, though of course it is of some. If £4 an acre was adequate when the grant was struck, it was either a great deal too much then or it is a great deal too little to-day. You may have noticed that the landowners in England and Scotland, through their various Associations, came the other day to an arrangement with the Forestry Commissioners that the grant was to be £7 10s. an acre from this on, and, in addition to that, that there was a yearly allowance for every acre planted of half a crown an acre. This is very different from our grant of £4 an acre here.

How is this going to work out from the economic point of view in future? If timber from the purely commercial point of view is going to be an economic proposition, there will want to be a very, very great difference to what there was in the past between the price of imported timber and the price of the home-grown. In August 1939 you could buy white deal C.I.F. Dublin of much the same quality as our own, except that it was a great deal drier than our spruce, at a cost of 1s. 3d. per cubic foot. It is rather interesting to note that at the same time there was one small cargo of Californian redwood imported into Liverpool and it fetched 7s. 3d. a cubic foot. But I will come to that later.

Can we grow redwood in this country? I wonder. We have some

fine specimens of it. There are two trees in Somerville, in Co. Meath, the age of which I know. They are seventy years old. I worked them out, measured them carefully. They came to 160 cubic feet per tree; this for the seventy years. The age of the trees is correct. There are a few similar specimens at Corbalton Hall, and one magnificent parent tree there from which the others have come. I measured this and, over bark, it amounted to 540 cubic feet. What I do not know, but what somebody here to-night can say, is whether that will be of the same quality, grown in this country, as it is in the Great Redwood Belt in California. If it is, if we can grow redwood and grow it in that time, there is no question of doubt the commercial problem is solved; but whether it will be the quality of the Californian stock is another question. I do not know.

The question of the sale of timber at the present time now crops up. This is not quite so easy. I think I can say what I like on this matter. I cannot make out why we did not leave this entirely under the control of the Forestry Division. Why we split it up among other Departments I do not know. The Forestry Division knew all about it. The prices, as compared with the English prices, are some 22 per cent. less. The owners, as far as I know, were never consulted. Prices were fixed, without consulting the owners at all, between the Ministry of Supplies and the timber merchants, and personally I think that the owners of timber in Ireland have got to thank the Forestry Division, themselves probably the largest sellers of timber in the whole of Ireland, that the prices are as equitable as they are, because there is no doubt in my mind that the Forestry Division must have made a very good case indeed to have obtained the prices we have to-day.

In order to sell this timber at the present time, what have we got to do? We have got to get through three Departments—apply to the Forestry Division for our licence, to the Department of Supplies for kerosene to convert it, and to the Department of Industry and Commerce to arrange about the sale of it. Then everything is all right and in order, but as soon as we set about felling we may be stopped by the Department of Defence, who need the trees as shelter for possible ambushes or something of the like, and there you are! What with the cumbersomeness of the control and the number of the Departments which you have got to get through, it would seem as if you never could get anything done, nor do I believe would you, but for one thing, and that is the amount of courtesy, attention, help and advice which you get in every one of these Departments from the people who put the business through for you. My experience is that everything that can possibly be done in the various Departments to get one's business through is done, and one is given every possible help. And that is speaking of that much-abused body—the Civil Service.

I read with much interest Mr. Petrie's paper in the Journal about the planting of hardwoods, and it was very good indeed as a sample of what could be done in this line by the small farmers. But in my opinion isolated little plantings such as this would not amount to anything in the reforestation of Ireland. For the reforestation of this country we have got to look entirely to the State.

With regard to forests in other countries. I have had a small amount of experience. In West Africa the chief tree we have is mahogany, which runs to an enormous size. It is most interesting to watch them being felled. They fell most of them about eight to ten feet from the ground, and the logs are cut and drawn out by native manpower.

In New Zealand, where I studied the forests, we have a very sad thing. The beautiful forests of New Zealand are all dead or dying.

The end of them is coming. The reason is that, about sixty years ago, some idiot—I can hardly believe he was a Scotsman—brought in about four stags and six does into the South Island, and two stags and four does into the North Island. When I was in New Zealand in 1937 the chief Government stalker told me that they had destroyed 128,000 red deer in the Pembroke area alone, and that that was going to be nothing compared to one season's reproduction. They have largely destroyed the forests. As fast as the natural reproduction comes on, the deer destroy it. The forests are still there, but they have no chance now except by artificial replanting. People did three most in-understandable things in New Zealand. They brought in deer, which reproduced themselves at an extraordinary rate; they brought in rabbits, which destroyed what the deer left; and the last disastrous importation is called by the somewhat peculiar name of "Bloody missionary." A newly-arrived missionary had a longing for his favourite sweetbriar, and got it sent from home, and it has since gone mad through the whole island and cannot be destroyed. Sweetbriar is ever since known as "bloody missionary."

I have been through a good deal of the Canadian forests. They are beautiful. Not as impressive as New Zealand, perhaps, conifers all the time. They do not seem to be as majestic or to blend with the landscape in the same way as the trees of New Zealand, but there are thousands of miles of them untouched as yet—Douglas, Spruce and Red Cedar.

The country which impressed me most was California. I spent three months in the Great Redwood Forests in the year 1939, and during that time lived in a cottage in the woods, first with a farmer and secondly with a woodsman. The effect it has on you is very remarkable. In the Yosemite Valley, which is 150 miles east of San Francisco, you have the biggest Redwood trees in the world. They reach 33 feet in diameter and 220 to 235 feet high. As to their age, authorities say that the oldest of them are 3,800 years. Sherwood in his "Forest to Furniture" puts them older, up to 7,000 years, but I do not think that this is authentic. The effect of these trees on you is perfectly extraordinary. You feel a most insignificant creature. No fungus or creeper grows on them, no parasite attacks them. They seem masters of themselves, masters of the forest. The area which they cover stretches about 250 miles along the northern end of California, from just above San Francisco up to the Oregon border, and stretches inland for about 50 to 70 miles. They have been burnt over and over again. Forest fires have swept through them for goodness knows how many years, and still they go on. The timber itself is absolutely beautiful. Most areas are preserved now and cannot be cut. The Tuolumne Valley and the Great Mariposa Grove are all giants, none of them under 22 feet in diameter. All are preserved, but there is still an amount of cutting amongst the younger trees.

The early settlers who came about 70 years ago built all their houses of this redwood. They have never been painted and are as sound to-day as the day they went up. It struck me it would be worth while examining this to see if we can grow it here. Wherever they cut one of these trees, generally three trees sprang up. They grow about the same pace as did those at Somerville, that is, about 70 feet in sixty-five years, and run about 150 to 160 cubic feet in that time.

There is one very remarkable thing about it, and that is the cultural effect which these great trees have, and indeed all forests have, upon us poor humans. I lived, as I said, first with a farmer and then with a lumberman. They were dignified, quiet people, very

different from what one's knowledge of the American in the town and of the plains is. The great trees seemed to have had a cultural effect upon their character and their minds, and I am not sure but that this is a side which has in itself a great importance. Progress and culture have got to run hand in hand, and there is no question or doubt of it that the beauty of the forest, if we only appreciate it from the pure "beautiful" point of view, has got, and will have if we learn readily and if we look upon it rightly, a cultural effect upon the minds of all of us. The shrill doctors and the pageant wars go down into ultimate emptiness and silence, but out of the windows of our homes, if we only have vision and plan with vision, we may behold in the future, or posterity may behold, much of the waste land of this country, much of the waste hillsides, clothed in forests which not only have a highly beneficial effect on both our soil and our climate, but, if we appreciate them properly, will, and must, have a cultural effect upon us and on our characters.

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