

Building a National Resource Fifty Years of Irish Forestry

J. Durand

The text of the 1992 Augustine Henry Memorial Lecture given by Dr. Jack Durand to a public meeting at U.C.D. Belfield, March 1992.

Mr. Chairman, Ladies and Gentlemen,

There are, I think no less than four good reasons why a lecture such as this should be held at this time.

The first is to honour Augustine Henry. As first Professor of Forestry in Ireland, he deserves honour for that alone. But his reputation as a pioneering plant collector in China before the end of the last century, his forthright advocacy of a properly generous scale of planting and the use of the then barely known North Western American species, his pioneering work on tree breeding and his joint authorship with Elwes of their classic *The Trees of Great Britain and Ireland*, have all won him acclaim. It was apt that the Society some years ago and in the presence of his widow, unveiled a memorial stone and planted a group of trees to honour him at Avondale, the cradle of Irish Forestry. Irish Forestry was always closest to his heart – he was Irish through and through, as his biographer Sheila Pim said in *The Wood and The Trees*. The Northern Ireland Forest Service similarly honoured his memory in his native Ulster.

The second reason of the four is to honour the founding of the Society which took place 50 years ago, under the leadership of Dr. Mark Anderson, then Director of Forestry and who was the first President of the Society and the editor of its early journals. But more of that anon.

The third reason is to participate in National Tree Week, organised by the Tree Council of Ireland. The Society of Irish Foresters, with over two dozen other groups involved in trees in one way or another, formed the umbrella grouping some years ago to further trees and tree-growing.

And finally, the fourth reason is one which has always been paramount in the aims of the Society, to advance and spread the knowledge of forestry in all its aspects.

Fifty years is in or about a common rotation length for many species of forest trees and it's a convenient point for gaining some perspective. Were we to go back 100 years, we would in fact be back to the very start of State Forest planting. This was a generously conceived, but hopelessly located,

famine relief scheme based at Carna in West Galway on peat-covered granite outcrop within sight and sound of the rages of the Atlantic. It failed utterly as a planting scheme and discouraged further attempts until changed circumstance arose in the early years of this century.

I say only a hundred years ago – because a century is a short time in the life of a national or forest tradition. Trees as we know are the biggest and oldest living things but we do not yet know how big or tall our greatest trees will become or how long they will live. The debt forestry owes to the private estates in this country cannot be overstated and this aspect is yet another example. Giant Redwoods, Sequoiadendron, growing at Powerscourt and Curraghmore and not yet a century and a half in age, are still increasing in girth and height and bid fair to readily outdo 50 metres in height. This is to quote just one noted species. And it is a story which is still unfolding. Forestry is indeed very young in this country.

We need not dwell on the well known story of the purchase by the infant Department of Agriculture, of Avondale and the start of forester training there in 1904. It was ironic that government intervention was producing foresters when there were no state forests and private estates were falling asunder under the cumulative Land Acts. But anyway, within a few years, some few thousand pounds became available each year after a report by a Departmental Committee in 1908. By the time the ravages of the First World War had passed, with its heavy demands for timber, the State Forest area at the time of the Treaty was about 7000 ha in the Free State and 1500 in Northern Ireland. Planting was going ahead at 500 ha per year. It may have been timid and belated but nonetheless a real start had been made.

By the 1930s, after recession and economic pressure on farm produce and world-wide unemployment, there was a greatly increased planting programme of 2500 ha in the Free State and 400 in Northern Ireland. It was a time when landowners were flocking to sell land at depressed prices and many of the best current forest properties were acquired in those years.

Then came the Second World War and a setback in planting, particularly in the 26 counties, due to difficulties of obtaining seed abroad, as well as in many other ways. At the other end of the forest time scale, forestry was once again calling on private woodlands to supply timber for both building and firewood. Because of the demand, standards in sawn timber dropped and native timber acquired a bad name when compared with the prewar choice selection from Baltic countries. It is only in recent times that standards of quality and uniformity of supply have been establishing a reliable reputation for native softwood supplies. And the setting of such reliability is an essential step before entering on a determined export drive – something which is already dawning. The harmonisation of forest production forecasts with processing developments for best national interests also require continued energy and liaisons.

But to return to our starting point, the early 40s were times when manual effort was literally that. In the felling of quite substantial trees, not only would they be felled, using a bowsaw or a two man cross cut saw, but the extraction of the tree from stump to roadside would also be done by hand, or sometimes by horse – that friend of man and especially of forest worker – even occasionally still used today. There was no such thing as chain-saws, and tractors were almost unheard of.

To illustrate the rounds to which forestry went, Tom Moloney, a founder member of the Society and now over 80 years old, has told me of being forester at Glencree when the War began. As part of the Emergency Firewood schemes, he was sent to Croneybyrne Wood, Rathdrum to produce firewood from oak and birch. He was given two small portable sawmills and the services of Avondale trainees to augment his labour force but was given only a coupon ration of a gallon or two of petrol a month for the sawmills. In order to power the engines, a metal retort was supplied to him to produce charcoal – making about a hundredweight, say 50 kilograms of charcoal, from a full load of closely packed billets of timber, say a tonne, by controlled combustion in the retort. When ready after a 24 or 30 hour combustion, the charcoal could then be transferred to a separate gas producer unit and ignited, from which a gas pipe led to the carburettor of the sawmill engine. Using a drop of petrol the engine was readily enough started but making a judicious switch at just the right moment to the gas, was tricky. During the period the Germans dropped a bomb in the wood and it was said locally that Hitler had become worried about the Croneybyrne war effort!

Despite the difficulties of wartime, planting continued although restricted. This was a time when even tyres for bicycles – the common transport for foresters and men, were in short supply. The first outing of the Society was based at Clonmel in Summer 1943 for ease of rail communication – and even trains were unreliable in frequency and often bereft of steam due to poor coal and damp turf.

The Society was formed with the primary objective of serving professional foresters and was originally intended for the 26 County area, or Éire as it was called, but it was soon extended to embrace the entire country. In its history, the Society has had much to do with Northern Ireland forestry and has numbered four Presidents from the North. The easy contacts, North and South, are something of which the Society is justly proud – this was exemplified by an incident when the John F. Kennedy Arboretum was being established and native specimens of trees were sought from national forest services abroad. The British Forestry Commission called on the Northern Ireland Forest Service, assuming that a joint offer would be made and were informed that they in Belfast would themselves arrange this matter with their “fellow Irish foresters in Dublin”.

The first annual meeting of the Society was held in February 1943, by

which time numbers had grown from 31 foundation members to over 100 foresters and 21 associates. By comparison, there are 650 members today. That first meeting was addressed by Arthur C. Forbes still fit and well, having retired 12 years previously. Forbes was a remarkable man and to him above any other is the philosophy and work attitude of the State Forest Service due, I think. If Avondale is the cradle, Forbes is the father of Irish forestry. Coming to Ireland from Newcastle College in 1904 as Visiting Expert, to examine Avondale and propose a working plan, he was to take employment in the post of Forestry Expert in 1906 and began implementing his own plan and then was successively Senior Forestry Inspector, Chief Wood Procurement Officer during the '14-'18 war, Assistant Commissioner during the two years when British Forestry Commissioners funded the State Forestry programme, again Senior Inspector and finally first Director of Forestry. He retired in 1931 and was then offered the post of lecturer in forestry at U.C.D., where Tom Clear, later professor and also for decades the Secretary and Treasurer of the Society, was one of his first students. Forbes' students were privileged to learn from one who had begun his Irish forestry career with only part of a table in Agriculture offices as his work space and saw his creation grow into a sturdy effective body. It was he who shouldered the risk of trying such as Sitka spruce and Lodge pole pine, while not being so bold as to cast aside the old species of European larch, Scots pine and beech and oak, on which his earlier forestry would have relied. It was apt that Forbes was honoured in being created first honorary member of the Society, an honour sparingly bestowed, there being only ten recipients, to the best of my knowledge.

The three most recent honorary members were the late Sean McBride together with H. M. FitzPatrick and O. V. Mooney. H. M., that much admired man of forestry is a link with those early names, in having studied under Henry and having worked for many years under Forbes and also under Anderson. O. V. Mooney, a founder member like Anderson and like FitzPatrick, was to become in time first head of forest research. He has always been a staunch upholder of forestry and has been a well known ambassador for Irish Forestry.

Like Forbes, Anderson displayed an outstanding physical and, mental energy. During his years as Director from 1939 to 1946, he showed a familiarity with plantations and problems which belied the effects of expansion and wartime restrictions on travel. He resigned to take the post of Assistant Director of the British Commonwealth Forestry Bureau at Oxford and subsequently became Professor of Forestry at Edinburgh in his native Scotland.

As the war ground on, with its tedious restrictions and personal hardships, thought was given here as is Britain, to post war forest policy. Advocates, such as Tom Clear, then lecturer in forestry at U.C.D., urged a greatly expanded programme of 8000 hectares a year. Sean McBride, always

a strong advocate of planting and at that time about to launch a new political party, set sights even higher and became identified with a 40 year programme of 10,000 ha per year to make an estate of 400,000 hectares.

The actual programme was proceeding at a fraction of this rate until McBride had his way – almost but not quite – in 1948, when he was a member of a newly elected Coalition Government. As Minister for External Affairs he inserted his forest target as a paragraph or two into the general omnibus government proposals submitted by him to the European Recovery Programme. It was a policy thus decided and imposed on the Department concerned without any prior assessment or planning which had then to be considered. Although McBride's targets were immediately compromised and reduced, the planting rate was greatly extended year by year and reached the 9800 ha figure in 1960.

By using figures for areas replanted and subsequently also including figures for private planting in the total figure of planting, McBride's dream of a 400000 hectare target of new planting was never adopted, even though circumstances have subsequently brought this figure well into sight.

However modified, the greatly increased expansion was radical and caused many changes. Acquisition spread in earnest to West of the Shannon and on to extensive blanket peats. The percentage of new planting in the West trebled within ten years, and more than half the total State planting was being consistently done in eight western counties. Such concentration in terms of age and area is not in the nature of sound planning for sustained programmes of work or output. It was a determined response to achieve a target almost exclusively defined by area planted and while a tribute to the forester in being able to establish crops on previously avoided areas, many of the plantations are suspect on economic grounds, and physical stability through a rotation period is also a doubtful probability.

The mass plantings were made possible by the scale of acquisition and by new techniques in drainage and ploughing. The purchase of no less than 21 heavy plough units and tractors in 1951 heralded the rapid change. The ploughs turned a single or double ribbon, making a corresponding deep furrow which acted as a drain. Other types of plough were fitted with deep tines and did excellent work in breaking soil pans which were a feature of many coarse-soiled, acid, upland areas. So now the forester was going further out on the bog and higher on the upland than ever before.

The reluctance of the roots to penetrate other than along the upturned ribbon of peat ploughing, raised questions of stability for such areas, leading to refinements in ribbon orientation and in time also to an attempt to form broken runs of ribbon, rather than continuous lengths. These drawbacks and the difficulties foreseen in felling and extracting an eventual crop of timber over this terrain, caused, this standard approach to be questioned over the years and further refinements, such as tunnel ploughing to avoid the gross physical profile, while still providing good drainage, were introduced.

The replacement of ploughing on flat area by machine mounding, creating a pattern of drainage at the same time, was another change.

The fifties and sixties saw the change in forestry from being labour intensive to the use of more and more machinery, together with work study and later method study and the forest workforce reduced from a peak of over 5000 in 1956 to 2000 today. H. M. FitzPatrick in one of his publications in the fifties truly said in his pungent introductory sentence "All one needs to get started in forestry is a spade". It can still be true but equipment has become increasingly sophisticated, and costly of course, over the years. In noting the change, it is only fair to pay tribute to a body of forest workers that served forestry so well. So many of them cared for the forest with a devotion and intelligent interest that has contributed much to the development of the plantations and a tradition of service.

In moving from being an undertaking primarily concerned with planting, to a timber producing and selling agency, forestry has had to adapt. The recruitment of engineers in the 1960s was due to the need for a network of road layouts which in time had to adapt to the economics of off-road haulage and the tonnage and truck sizes allowed on public roads.

A major step in developing sophistication of forestry was the creation of a Research Section in 1957. In time it was in a position to advise on an extremely wide range of conditions from soils to crop structure and on forest diseases. The first inventory of volume and production estimates was completed. Research also became an important listening and contact point for awareness of developments abroad. Up to then contact and experience abroad was open to only a limited few and an invaluable contribution made by the Society in those early years was in providing a forum for exchange of experience and for the acquisition of knowledge. On day outings, formal meetings and on Annual Study Tours, members studied and discussed techniques and results. Beginning in 1949 with a visit to Wales and followed by visits to Scotland in '51 and subsequent tours to Germany and Denmark and many subsequent foreign tours, the Society gained greatly from such contacts and introduced members to foreign experiences which would not otherwise have been available. Groups from other countries likewise began to visit here and gave of their experiences and suggestions.

The Journal of the Society has become a prime record for Irish Forest experience and innovation and many items of work undertaken in forest management or forest research were first published in its pages. It was widely circulated abroad on subscription to institutes and libraries and thus further contacts were made and strengthened. Such contacts and limited English led to an occasion when Cecil Kilpatrick, then President of the Society of Irish Foresters and coincidentally President of the Irish Deer Society, received a letter from India addressed to him as "President of Ireland"!

The mid-fifties saw the creation by Malachy Sharkey, of the first

integrated forest company, Irish Forest Products. Proudly proclaiming its activities as ranging from seedling to sawdust, its forest and sawmill activities were absorbed in time into the Woodfab-Smurfit operation. I remember Mr. Sharkey's emphemistic reference to the sale of standing timber by the State as a "lucky dip", offering little towards rational forward planning by sawmills for sawlog quantities. At that time and for many years thereafter, sales were by periodic sealed tender, this so called lucky dip. Recent years have brought more refined and less haphazard methods, of ensuring a reasonably even supply of timber on to the market and at competitive prices, which nonetheless allow for an inducement to more efficient sawmills.

During the mid-sixties, responsibility for wildlife was assumed by State forestry and in time a Wildlife Act, covering conservation and management of flora and fauna was sponsored in 1976. In recent years the Office of Public Works has assumed these responsibilities. At the same time, the public representing an increasingly urban population were resorting to the forest for recreation. In place of being discouraged from entering a forest for fear of fire or other unstated risks, the public were invited and, following a path in recreation as in wildlife, already explored and imaginatively trodden in Northern Ireland, many facilities, ranging from a simple picnic site to quite elaborate developments, were provided and hugely enjoyed.

1970 was marked as European Conservation Year. In one reference in the journal I noted it had become conversation year – I wonder was it tongue in cheek on the part of the recorder – or perhaps a skeptical editor! To encourage a wider awareness of nature and conservation, the Society inaugurated a large number of forest walks and these were very popular with the public and were continued for many years.

In moving along over the years, many of the once familiar terms such as chains, straight and square, yards, feet and inches, Petrograd Standards and Hoppus feet, quarter girths, acres – English and Irish, hundredweights, stones, pounds and ounces as well as guineas, half crowns and shillings, cubic feet and gallons – even pints – although the term is still much used colloquially – have yielded to modern and more convenient metric units.

Changes in style and control of the forest programme also took place over the years. In the early 1950s the professional forester lost his position of authority and influence with the political head of his department and became subordinate to general Civil Service administrators. Only a change in personalities was necessary to bring this about, the legislation under the Ministers and Secretaries Act from the early years of the Free State being the supporting power. Henceforth the forester became an advisor, which led to many anomalies where responsibility for managing resources of great value in labour, materials and machinery lay with the forester but yet he could not purchase even a trivial piece of expendable equipment without approval, nor sign even the simplest letter of advice going to a landowner.

In the resolution of questions related to forest policy and management, the Society, composed after all largely of State employed personnel, was understandably but regrettably loath to speak out on such matters. The absence of a clearly expressed forest policy was not given prominence as one would expect and it was left to the independence of such as Professor Tom Clear, notably, and later two editors Dr. Jack Gardiner and Dr. Ted Farrell, all three, academics and therefore removed from the Civil Service, to draw attentions to anomalies or absences in policies. It is noted for example, that it was Professor Frank Convery who initiated the discussion of the apparent failure in Civil Service structures in managing the forest estate in the late 1970s, which led in time to the Trade Union of forest officers publicising their criticisms. The subsequent exposure of the question, led to the Review group which in turn influenced the creation of the structures we know today. The Society's submission to the Review Group, while giving well reasoned suggestions on policy under several headings, does not address the changes if any in management structures it would see as desirable.

The impact of the creation of Coillte Teoranta as a commercially orientated, limited, State company has been the most dramatic change in State forestry since its beginning. Now entering on its fourth year and trading against a background of difficult sale conditions, Coillte aims to become self-funding in all respects after taking account of European Community grants and to be nationally self-sufficient in softwood by 1996. It is striving to broaden its potential revenue base and to pursue the creation of rewarding downstream industry. These next years will be critical in setting a pattern of results and a historic basis of comparison for assessment. Forestry is an undertaking where mutual support – indeed synergy – between business and biology is necessary. One can't have one without the other and in walking that very fine line the critical path of best advantage, so ill defined at times even in hindsight – will Coillte's story be recorded.

The availability of European Community funding for certain Coillte operations as well as funding for private planting and related work has given a remarkable boost to forest operations. This year the greatest ever planting programme will be completed when Coillte's total is added to that of private individuals and companies. The great expansion in private ownership is having a dramatic impact on the spread of ownership and is drawing widespread financing into forestry from entirely new sources. It augers well for variety and innovation in management and in vibrancy in Society deliberations and attitudes from which the entire industry stands to gain. The recently announced and greatly increased planting grants and farm premium payments will no doubt draw in a better type of land and lead, one hopes, to a better spread of species and away from an undue and potentially hazardous reliance on a very limited number of species. Expansion of planting brings with it also a wider need for care in avoidance of risks to aspects of conservation and environment, including landscape.

And speaking of such hazards, it is particularly in our interests to maintain a soundly based and sensitive research arm not only to investigate future paths but also as insurance to monitor conditions and guard against possible epidemics of disease. We had very little elm in this country and its almost entire removal by Dutch Elm disease was noticeable only in its limited pockets of location, but yet everyone was aware of the thorough depredation. Our forest plantations have thus far escaped epidemic losses but in forestry, as in politics, the price of freedom is eternal vigilance. The recent threat to Kinsealy research unit and the curtailment of forest research in certain aspects are causes for unease, especially at a time when greater insurance is indicated for an increasing capital at risk. The forest industry has by now an inherent dynamism and a huge potential to be encouraged and developed. For the same reason the long hiatus in the training of a stream of foresters will soon pose the likelihood of a shortage of skilled supervision for forest properties.

In this account I have had to omit many aspects that would be of interest to various members for one reason or another. I can only express my regrets and also to say that the views expressed are my own and not necessarily those of the Society.