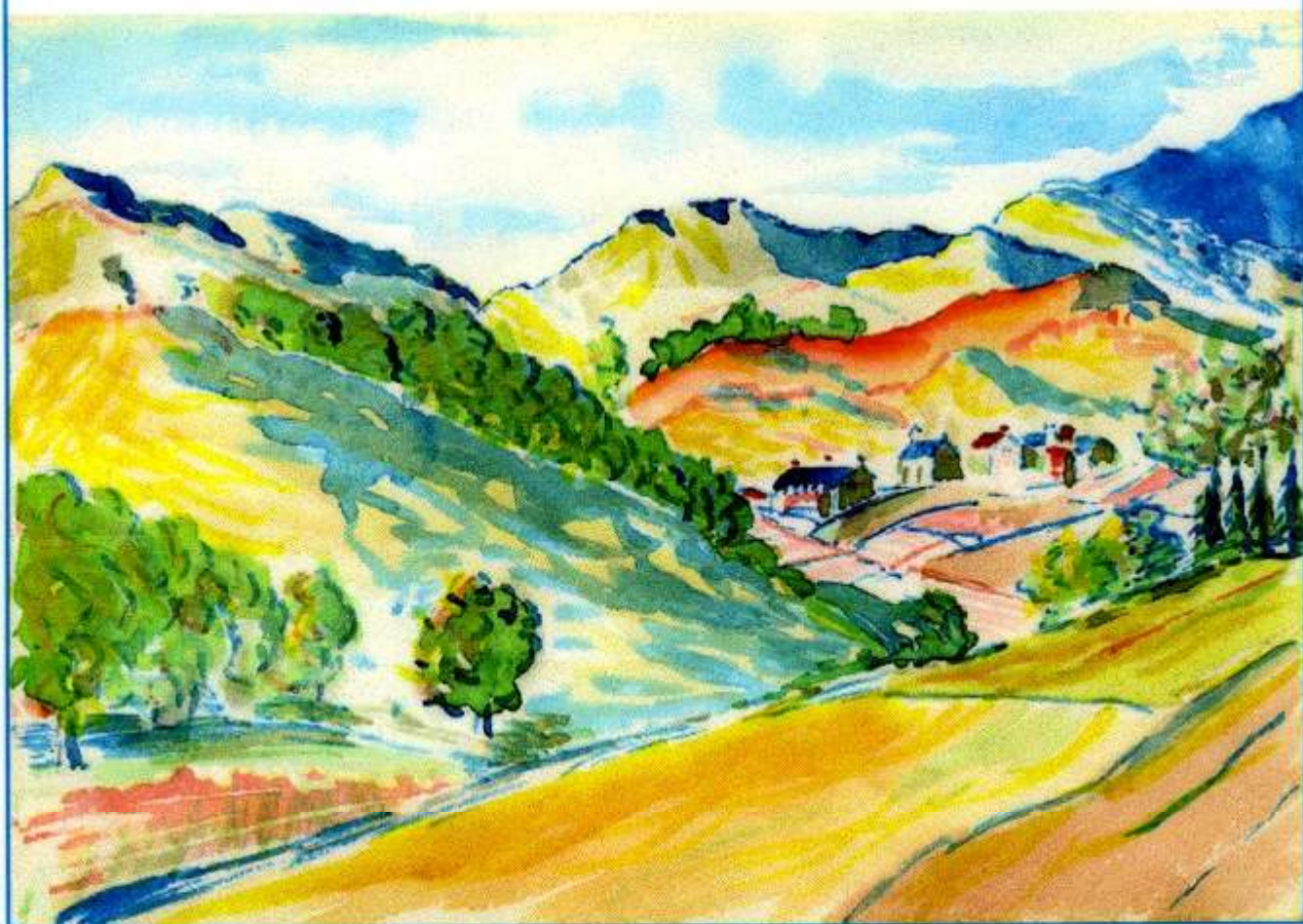


THE FORESTRY

An Autobiography

by

James Alan Burns Macdonald OBE



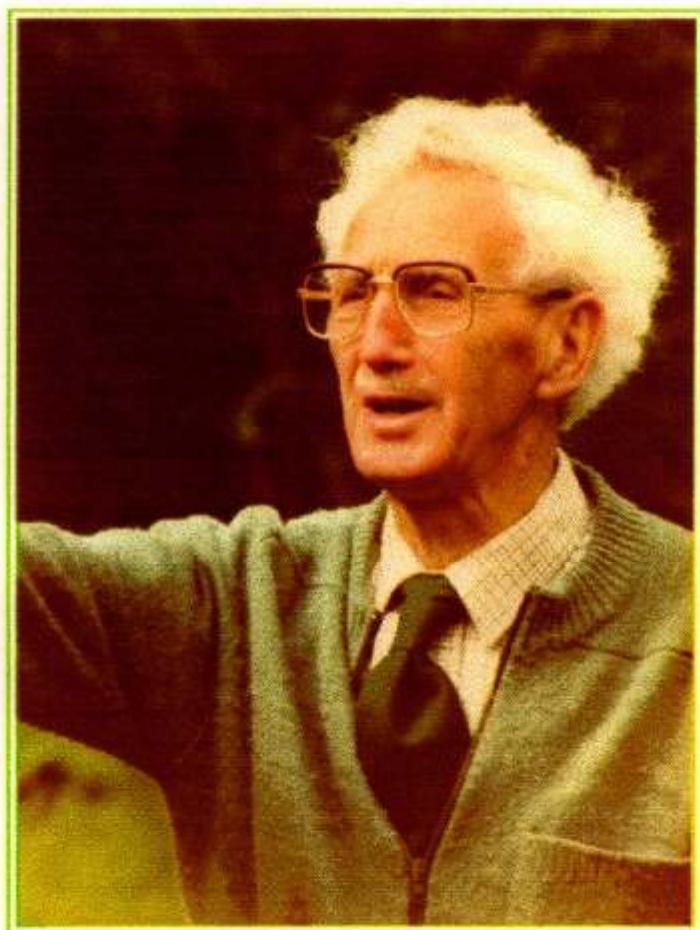


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Desk Top Publishing
by
Linda Macdonald

1997



James Alan Burns Macdonald OBE

4th December 1900 - 4th March 1995



Introduction

Hurriedly in 1692, my great great great great great grandfather left Glencoe and made his way stealthily across Loch Linhe to Ardtornish at the head of Loch Aline.

His family settled thereabouts for a century and a half; then my grandfather turned south to settle in Callander, where he became forester and lairds man at Callanderade; married a local girl - a Buchanan.

In December 1900 I was born in a house called Oakbank - so called because its builder was an Oak bark merchant.



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Chapter 1

1900 - 1922

Roots and the Home Nursery

With the unerring flair country folk have for putting a name on anything new, the early flounderings of the Forestry Commission were not months old before 'The Forestry' was the name applied in half a dozen separate districts; that was in the beginning of the nineteen-twenties. Subtly expressed in a variety of accents from Border to Highland that name conveyed anything between a rather wild hope for the future, and, perhaps more commonly, an amusing caper to be humoured which would doubtless soon fizzle out. Thirty years after its inception, The Forestry was barely accepted as an established institution by some people. A few die-hard lairds still resented state intrusion into a delightful pursuit that was previously all their own, and not so long ago foresters of the old school felt there was something upstart about Commission foresters with their forest-school or university training; and naturally in the hill-sheep country into which forestry has intruded there are still men who view The Forestry darkly, although many good friendships exist.

Having retired ten years ago after forty-three years in The Forestry myself, it will be interesting to find out if what I have to say about it is accepted as reasonable, or charitably received as the ramblings of an old man whose head has naturally been somewhat lignified through long contact with wood.

As to why I personally went in for forestry as a career, it is at least of remote interest to relate that I first saw the light in a house named Oakbank, which faced Ben Ledi. In itself, that is a very slender pointer to a future profession; but the house had been built by an Oak-bark and Timber merchant; my paternal Grandfather who hailed from Glencoe via Fuinary had been laird's man and forester on the adjoining estate, and for generations my mother's people had been West Perthshire carpenters - 'wrichts' in the local tongue. Perhaps there was wood in my blood, in addition to an undoubted interest in and an eye for cattle inherited no doubt, from my reiver ancestors of Glencoe.

My paternal grandparents were gone before I was born. My Mother's father suffered, no, I am led to believe, enjoyed me for three years before he departed. I remember him faintly as a brown, bearded man - like Joseph of Aramathea who took me by the hand down to the grocers at the corner and gave me a banana. But my remaining grandparent - Granny, was tougher altogether and suffered me for years despite the fact that she worried over me much of the time. I was thin and undersized and pale, so that she was forever slipping me a biscuit or bribing me with a little tumbler if I drank a little milk - which I loathed. I remember that little tumbler well and so unfortunately does my brother, Bob.

To him still, despite a life of sacrifice and of great deprivations in a far country, that wee tumbler raises the very devil's incarnation - envy! He trots it out when my own children are in audience, or their children. It is puzzling because he is not a bad sort - fatter, and in fairness fuller of the milk of human kindness than I am - and he never envied anything else but that wee tumbler in his whole life! As a child he looked like his name - Robin - and was for a time malleable and I did my best with my three year lead to bring him on and to instil some sort of discipline, and I achieved a bit mind you. For his age he certainly was daring, but I failed utterly to cure him of howling like a bull if he hurt his finger or banged his head. Sorry to have run aside after the wee tumbler, but Granny was one of the best women in my life. When she spoke she spoke Scots yet she was a great reader of English and a deep thinker; never never far from her Bible, or the British Weekly yet her sense of humour was strong, and liberality, practical and political was highly developed in her little body.

Even before rheumatics struck her badly she could never have been over five feet tall. She hated dirt and maybe scared herself more than us with her fear of 'microbes' among the odd bits of sacking or carpet-ends which had such a fascination for us in her stick-house. From the sound she got out of the word 'microbes' we certainly expected something bigger than mice or frogs and devastatingly more aggressive. What a poor modern substitute is the word 'germs'! It was much later in life that we learned, with considerable elation, that when a girl of sixteen or seventeen, Granny climbed down a ladder from her bedchamber to a lad waiting below and made off to a dance! I prefer to remember my own Mother - the oldest of Granny's family - as she was about this same time, rather a lovely young woman and the embodiment of soothing gentleness, whose hand smoothed my hot brow during several early fevers and who looked and spoke compassion.

Before I can remember, my family had moved to a new house on the other side of the River Teith Valley. It had been designed by an architect cousin of my Mother, and was built in an Old Red Sandstone quarry which gave the house its Gaelic name, Ardvurich, and it quickly developed a large, and for a growing family, an exciting garden. We were right on the Highland Boundary Fault, so the conglomerate crags were over the wall to the east while the Highland Schists outcropped in a burn only a hundred yards to the west. Above and beyond that, round the upper rim of the fields, woods stretched two miles to the Pass of Leny. As boys we spent much of our time on the Crags and early developed a facility for rock climbing among their Plumpuddingstone cliffs. The less steep areas were wooded with one hundred and fifty year old beeches and Scots pine and continued in a great amphitheatre to the east above the town of Callander.

A foretaste of forestry was fostered while I was still at school during the First World War when the woods on both sides of us were felled and we mourned their passing; but one particular giant beech on our march, we called it - Crow's Nest - was spared, for the simple reason that in the making of steps, hut, platforms and floors we had driven innumerable spikes and nails into trunk and branches. It collapsed of old age expedited by an overdose of iron some ten years ago. Besides being raised in this paradise for boys, our home circle was presided over by a man with an outstanding sense of humour, a real love of crofting or farming life and an endless fund of good stories. We, for many years had a pony or rather a series of them. For some years we kept and milked goats, and one season we had a billy but he made far too much stench and in later years the nannies were taken to the billy at a farm on the other side of the valley - once actually in a hired one-horse cab!

Occasionally my old man overdid the teasing of my patient mother, as in the small hours of one lashing wet night when he wakened her to worry over a hen which was sitting on eggs under a whin bush, but he was delighted by her quick retort - "Well, she should have thought of that in time!" What a lot of trouble would be spared if mankind in general adopted this sage advice.

My father's job as Clerk of the Parish brought him in touch with every local worthy; indeed he eventually published a book of Character Sketches. There was Norman, the strange shuffling character of gentle birth who was chock-full of weird ideas. He burst into the office one day to file a claim to be buried on the Croch Dubh - a heathery height above the town, because he wanted to be able to

hear the grouse cocks crowing over his grave. When my father very gently doubted Norman would hear them, Norman was undismayed and claimed firmly "Well I'll ken they are there!" We heard many good stories typical of the Scots - for instance of the wife who asked a Glasgow policeman on point duty where she would get the Auchenshuggle tram-car and was startled to learn "You'll get it in the sma' o' the back if you dinna get oot o' there!" Then there was the agitated lad with the wild, searching look in his eye, who lingered in the gallery after an evangelical meeting and being asked "Well, my young friend and have you found Christ?" replied "No, but I wish to Christ I could find ma bunnet!" You will have gathered that my parent was quite broad-minded for an Elder of the Kirk. Indeed when the minister indulging in a tirade against swearing one Sunday morning claimed "They say Bloody this and Bloody that - I suppose they would call this a Bloody Cold Morning!" the old man was heard to whisper - "and they wouldn't be far wrong!" There was an immense, shapeless mass of washer-woman who peched and squeezed herself into the office one day and flopped into and over a chair. She poured out her woes and related how near she had recently been to her end, finally exclaiming - "Mr Macdonald you should thank God you see me!" He felt forced to reply: "Mrs Hannah, I have to admit the thought had not entered my head."

No doubt the war fellings around us prompted my father to start me off in forestry. For myself, primed by the Stuart Edward White books on Lumbering in Western North America, I have no recollection of ever having resented his suggestion, and before long I was loving my profession and have done so ever since.

At home from an early age and on the most nebulous basis I was recognised as the family's expert on trees. This entailed a certain amount of leg-pulling and the story is told of the felling of one tree when there was a premature creak which resulted in The Expert being first off his mark and, it is now claimed, half way to the village before the others had barely started to get out of the way. I hold that this legend only proves that I was quick on the uptake. Nevertheless I was pretty dense at school and certainly took a poor view of exertion where dull subjects were concerned. Having failed after three half-hearted attempts to get Lower Latin there was little chance of my entering university. But as the war was ending and large numbers of ex-servicemen crowding the universities, I was keen to get started in forestry and jumped at the chance of a two year Diploma course at the West of Scotland Agricultural College.

Personalities who influenced me considerably there included Professor McAlpine, an odd old tramp-like creature whose teaching of Botany was far ahead of its time and quite supreme; Mooney, the geologist gave a good grounding in his subject, and on Flander's Moss which, I helped to survey, introduced me to Peat with which I was to become so much involved later on. James Fraser was my first year Forestry lecturer. He gave excellent notes fast and badly through closed teeth and obviously had little time for a mere school boy in a class largely composed of ex-servicemen like himself; but I was to meet him a great deal later on and to become increasingly fond of the famous Conservator-North. I was also to meet again my Chemistry lecturer when he later became Director of the Macaulay Institute for Soil Research at Craigiebuckler, Aberdeen. Glasgow dropped the teaching of forestry a year or two after my time which was rather a pity because the strong agricultural bias, and the insistence upon forestry men studying Crops and Manures, and the rubbing of shoulders with both young farmers and agricultural experts, was valuable training for one who was to live and work among, if not always with, farmers all his life.

The requisite amount of practical forestry experience before and during college years began for me on the rich soils of Kier Estate between Dunblane and Bridge of Allan which produced some fine hardwoods. Kier belonged to General Archie Stirling, one of the architects of State Forestry in Britain, brother-in-law of Lord Lovat - the Commission's first Chairman, and brother of Sir John Stirling-Maxwell one of the earliest Commissioners and later to become Chairman. The Head Forester at Kier was named MacMillan - 'Old Mac' he called himself, and he was rather old and partially blind. Despite the fact that much of my time was spent in a wood-shed behind his house cutting logs and splitting kindlings for his fire I learned much from the old man. His pay was twenty five shillings per week with a free house and other perquisites of which I was undoubtedly one. I learned that 'Old Mac' had grave doubts about the professional status of the Royal Scottish Arboricultural Society (later the Royal Scottish Forestry Society) after asking one excursionist which estate he forested and receiving the reply "Forester! I'm no' a Forester, I'm a greengrocer frae Kirkcaldy!"

Two great ex-service characters were pupils with me under MacMillan - J D Robbie, later in charge of the Commission's Newton nursery, who had a large and most eloquent vocabulary, and the famous A N Simpson who for many years presided over the Commission's large nursery at Tulliallan. Among other jobs at Kier, I

remember cross-cutting fence-posts from eight year-old Japanese Larch at Gallowhill; planting hardwoods with larch nurses in The Back of The Moon strip, and planting conifers in the Laird's Loch Lubnaig-side estate at Ardchullary - which very conifers took a tossing thirty four years later in the 1953 gale. My pay was fourteen shillings per week. Next year, during the long vacation, for months it seemed and often alone, I lined out Spruce seedlings in a nursery at Leny near my home. There I also learned to cast peats for fuel on the moor and to burn piled brushwood from the war fellings. That led to my first experience of a real forest fire when a Scots Pine plantation adjoining caught fire. The whole area was alive with rabbits and I can still hear the squeal they made as, de-furred by the flames the odd looking little creatures made belated escape.

For nearly a year after taking my diploma I worked with a saw-miller and fencing contractor and learned much of real value. Practical details of jobs undertaken during these months are still fresh in my mind, and later on I was to find that there was nothing to touch practical experience when it comes to understanding a workman's attitude to his job of work. Even today the thought of management and administration 'experts' being trained almost entirely on theory makes me shiver. William Mungal was the excellent foreman of the saw-mill with a fine eye for the possibilities of each log on the saw-bench; but he was not above casting the eye on ladies passing on the roadway, and when occasion arose he would straighten his back and eyeing the lady rather than the log remark - "There's yin with a grand show for milk!" The Miller's Pool on the river below taught me a lesson in timber technology and nearly beheaded my brother. We took a heavy Monkey Puzzle plank for a diving-board which snapped clean across at a whorl of knots when he made the first dive and narrowly missed his head when it crashed down after him.

When in Edinburgh once during this period, my father went to see the Scottish chief of the new Forestry Commission, Colonel John Sutherland about the chance of a job for me. He was rather tickled when the Colonel, after deploring that openings were as yet few in the Commission, remarked on the possibilities of Glasgow Corporation developing Forestry on Loch Katrine-side and undertook to use his influence "to have the lad slipped into Loch Katrine." Luckily nothing came of this, but some weeks later a Forestry Commission advertisement appeared in the Glasgow Herald and I applied. There followed an interview conducted by Major A D Hopkinson in his Glasgow headquarters. He was Divisional Officer, South-West Scotland and was supported by his Chief (and only) Clerk, Benny Kinnaid. I was still very small and I remember well Hopkinson's amused twinkle

when he asked if I felt I could cope with a squad of heavy navvies from Clydeside. However, I had the vanity of youth and got the job and was posted on the third of January, 1922 to the newest Forest, Glenbranter, which had just been acquired from Sir Harry Lauder, in the Cowal district of Argyllshire. Snow fell as I disembarked from the Clyde steamer at Kilmun Pier on the afternoon of the second of January. The Model 'T' Ford in which the Pier-master drove me up Loch Eck-side through the snow-storm had to have its wind-screen open; wind-screen-wipers had not yet arrived. That evening the Forester came to inspect his new Foreman in the excellent lodgings he had booked for me at Balliobeg at twenty five shillings per week inclusive. My pay was to be forty five shillings per week plus lodging allowance of seven shillings and six pence.

Next morning I reported at the Forest Office at 7am using the official push-bike provided, and at a brisk pace we set out through the sedges and rushes along the squelching side of the Glen to the screeing gang. This consisted of a few likely looking local lads and many more big strong navvies from Clydeside. I was shown what to do and left in charge of them - my career in the Forestry had indeed begun. It was to continue for over forty-three fascinating years.

What is the purpose of this study? The purpose of this study is to determine the effect of the use of a computer-based learning system on the performance of students in a mathematics course. The study was conducted in a classroom setting where students were divided into two groups. The first group used the computer-based learning system, while the second group used traditional textbooks and lectures. The results of the study showed that the students who used the computer-based learning system performed significantly better than the students who used traditional textbooks and lectures. This suggests that the use of a computer-based learning system can improve student performance in a mathematics course.

The study was conducted over a period of six weeks. During this time, the students in the first group used the computer-based learning system for all of their mathematics lessons. The students in the second group used traditional textbooks and lectures for all of their mathematics lessons. At the end of the six-week period, the students in the first group took a mathematics exam, and the students in the second group took a mathematics exam. The results of the exam showed that the students in the first group scored significantly higher than the students in the second group. This suggests that the use of a computer-based learning system can improve student performance in a mathematics course.

Chapter II

1922 - 1925

Glenbranter and the Early Forestry Commission

Screening was done by swinging a heavy, broad-faced mattock, like an adze without any pick opposite, to remove all or part of the herbage and underlying turf with the object of giving the little tree-plant something of a start over the local vegetation in the square foot or so provided. On the occasional dry slope or knoll with dry grasses or heather over rootable mineral soil, the method had its advantages; but on the much more common, poorly drained and often peat-clad gentle slopes with rank grasses, water was wont to collect in the hollow of the screef so that drowning of the poor little plant frequently resulted sooner or later. If not, swamping by grasses or sphagnum moss made the little seedling's life difficult, to put it mildly. Screening was indeed a man's job and the navvies kept up an easy swing. Lighter men had to develop dexterity and to maintain, with a file, a very sharp edge to keep up. Note that in these days the Foreman (now graded Assistant Forester) worked with if not harder than his squad. As a result of this hard manual exercise I was laid out, sound asleep in my chair after my six o'clock meal, but I certainly developed physically and perhaps mentally as well. The navvies were led by a big Scot named Drummond who looked like a stalwart David Livingstone and was just about as staunch at heart. Then there was one named Laird, who had bandy legs and definitely looked horsy; also a myopic character - William Forester - who hailed from Ayrshire, had been well educated and reeled off long quotations from Burns most of the time, but with considerable extracts from Shakespeare.

Except for the few local men, the rest were housed in cottages or bothies where they generally looked after themselves; to begin with there was no resident cook. All liked drink, and the pub at Whistlefield by Lock Eck did well off them at weekends. Willie Forester took too much and was often absent on Mondays. Obviously he had a past, but we never gained a clue as to that. Strangely enough he was spotted some years later on a transatlantic liner but refused to be recognised and denied being the same man. Laird, who had bad feet under his bandy legs, waxed eloquent about the healing properties of the salt water in Loch Eck, along the side of which he paddled on the journey home to Glenbranter. Tight or sober he continued to maintain that Loch Eck was an arm of the sea. Shortly after my

arrival on the scene, James Calder from the little estate of Kirkhill in Lanarkshire, came to be our first official Ganger. Kirkhill belonged to John Smith, then a Forestry student at Edinburgh; he later went to the Sudan and in time became Director of both Agriculture and Forestry. Calder himself finally became Head Forester of Carron Valley Forest before retiring.

Planting at Glenbranter entailed the use of a heavy tool called a circular spade which, when plunged into the centre of the screef and screwed round, using the great long handle provided, brought out a nine inch long by three to four inch wide plug - like a cork out of a bottle. Deep into the hole thus provided, the root of the tree-plant was suspended vertically and the 'cork' driven home. It was some years later before the folly of such deep planting into waterlogged land was exposed by Dr H M Steven's work on 'Root Form in Peat.' A certain amount of open draining, well aligned by Hopkinson the Divisional Officer himself, was done to remove surface water, but at that time no one thought of spacing out the turfs from these drains to plant upon. Like the drains, all road lines were pegged out by the Divisional Officer in person, sometimes assisted by his District Officer, one Angus Graham of Skipness. Like my Forester, Paterson who had been trained by Hopkinson at the Forest of Dean School and who called him 'the Skipper', I soon developed a great affection for our chief who managed to visit us almost weekly and almost invariably wore a kilt. My admiration was in no way diminished when once I asked if I might go home occasionally for the weekend, explaining it would entail returning late on the Monday morning, and was advised to be like Brer Rabbit and say nothing about it. Civil Service red tape had not yet superseded trust and simple common sense.

Three hundred acres were planted that first year in Glenbranter in a tremendous effort and it is hard to record that many of the original plants failed within the first few years. Replacing of failures, known as 'Beating Up' was carried out more or less annually for some years. It is worth mentioning that many of the first year's plants arrived as over-drawn three year Sitka Spruce seedlings from an Irish nursery where they had been grown far too densely in the seed-bed. Pale windlestraws they were, thin and drawn and with miserable roots. As is common on the west coast, there were glorious, sunny March days after frosty mornings and the air had an invigorating quality I shall never forget; but many a winter night it was getting dark when we left the hill for the two mile trek down Glen Shellich, and as dark as pitch before we reached the road; yet no one slipped or stumbled, we had developed the sure-footedness of goats. I was proud of my shepherds boots with their tacket-studded, swept-up soles - grand for skimming over heather and grass tussocks. I seldom had even damp feet, though we were standing in water over the welts much of the day.

Some of the fencing which had to be erected and much of the draining was done by a huge highlander - Dugie Turner accompanied by a good and tough fisherman named McNair. When iron posts were to be set in boulders, Turner would seldom kneel beside the stone in the approved manner to bore the hole with jumper and hammer; no, he sat on the ground, took the half to one-hundred weight boulder on his knees, and hammered away with power, skill and even more control. Occasionally on a Saturday evening he would row across from Kenmore, his home on the other side of Loch Fyne and take me aboard to fish for 'cuddies'. He had a big heart besides great strength and craftsmanship. His conscience bothered him because, on piece-work he was earning twice as much as the day-workers and more than his Foreman. Once when I paid him he tentatively offered me some of his pay packet but was obviously relieved when I refused. His relief was for no other reason than his regard for me, and when I left Glenbranter after two years I knew well who was the biggest subscriber to my presentation gold watch.

Early in my first year at Glenbranter I met Sir Harry Lauder from whom the Commission had acquired the land, although he still occupied Glenbranter House. He hailed me as "the new ruthless afforestationater!" We were beside the river, near a nice pool and I asked about the fishing. He replied "Man, they would not take your hook if you baited it with ham and egg!", and off he went, stocky figure, bow legs, cocked bonnet, swinging the kilt with a particularly jaunty gait. Yet Glenbranter had turned out to be a sad place for Harry Lauder who had bought the estate for his son - a Captain, who was killed in battle.

The Geddes Axe fell at this time, narrowly missing the entire Forestry Commission and resulting in retrenchments, including some dismissals and demotions and the transfer of our beloved Divisional Officer to the area of the Forestry School at Chopwell Wood in Durham. We no longer heard the strains of his bag-pipes from the larchwood of an evening. J M Murray succeeded him by taking over all South Scotland.

During my first summer at Glenbranter, Dr M L Anderson selected Jack Drysdale from Edensmuir Forest in Fife and myself to relieve members of the Statistical Party when they went on leave. They were ladies who had been recruited in war-time. However I was not long away, thinning and measuring Sample Plots at Douglas Water in Lanarkshire, when the sudden and tragic death of my Glenbranter Forester in an accident at the Saw Mill there called for my immediate return. It was about a year before a new forester was found.

Even if our methods in those days were faulty, it was a great opportunity, if rather a terrifying one, for a twenty-two year old to take charge, even temporarily, of an estate with an annual planting programme of at least three hundred acres. There was, of course, no office staff but even then the book-work for a squad of over thirty men was not inconsiderable, and spared little time for actual manual labour. The new forester in charge of Glenbranter was Bob Shaw a native of Glen Urquhart with Edinburgh Botanic Garden training, who was promoted from Tentsmuir Forest in Fife.

I was sent to Edensmuir, also in Fife, a little Forest of my own in vastly different country which I took over from Drysdale who had been with me at Douglas the previous summer. He had taken on a forestry job in South Africa. In the wide open Howe of Fife the skies seemed remarkably large and sunny after narrow Glenbranter, and although rimey mornings could be bitterly cold, I exulted in the change, in the freedom from rain, and incidentally in the proximity to St Andrew's where my brother was a student. I had taken over Drysdale's digs at Charlottestown and was looked after by a remarkable woman who suffered much from heartburn and had, in consequence a ruddy countenance. She suffered ungrudgingly too from her joiner brother who, although a good chap at heart, was an inveterate soaker. The lady used to turn up her eyes when emotionally disturbed. This dramatic gesture was turned on for instance when the night was moonlit and the outline of the Lomond Hills beautified by the evening star, she would exclaim "Just look at the Hills and Venice!"

A near neighbour who was very good to me was old Mr Reid, retired Head Forester from Balbirnie whose sons were Foresters, one in Africa and one, believe it or not in the Falklands; both were ex-Edinburgh Botanic Garden. My squad was recruited from Ladybank which is or was a Junction so that most men had railway connections! Unlike Glenbranter where spruce prevailed, here we were replanting old Scots Pine woods on a sands and gravel plain. It was all dead simple, even half of the paper work being done at Tentsmuir of which Edensmuir was but a sub-unit. The pay was brought by the Head Forester, one Peter Clark, who knew no forestry but had had to be taken over conditionally by the previous owners of the estate of which he had been a sort of manager or clerk of works.

At Edensmuir as at Glenbranter it was not long before Research Branch operations caught me up again. Dr Steven, then Research Officer Scotland came, chose a site, and left me with Scots Pine Spacing and also Age and Type Experiments to lay out and subsequently to plant. I enjoyed this, and had the work done with great precision, and no doubt, in consequence was transferred about a year later to become Research Branch's first Foreman. As my appointment was such a unique step for Research Branch at that time I was to give one third of my time to the local District Officer at my new station in Inchnacardoch Forest near Fort Augustus. Otherwise I was to look after the first concentration of Experiments just laid down and about to be laid down on a desolate and wind-swept area of basin and hill peat well named 'The Lon Mor'.

Chapter III

1925 - 1929

The Lon Mor and the Early Research Branch

The North was a tough place in those days and pampering of staff was not on. I was not to have a lodging allowance but was housed in the bothy at Auchterawe, a black tarred, old army hut, divided off into cubicles by sacking. Each cubicle held two bunks, one on either side, and my mate was a navy from the south called 'Erichie'. It mattered little that he belched and snored - so did some twenty men behind the curtains. Food was ample, well cooked by a good man, and the kitchen-dining room warm and very clean. However, a bout of pleurisy brought on during a camping holiday by rolling off the ground-sheet on to wet ground at Thirlsmere on a night that summer when midges reached record virulence, proved a blessing in disguise, for the authorities relented and gave me a lodging allowance again. So I became established in a cottage overlooking Fort Augustus village with a dear old highland lady, somewhat modelled on Queen Victoria and with limited English. She always called the convenience 'the lavender' of which it certainly did not remind one. Neither was 'convenience' quite appropriate either, as it was sited on the hillside some fifty yards from the cottage and beyond the byre. However, unlike many of its kind, the view was extensive and the site airy. The landlady's crofter son Sandy was a ghillie of note on Loch Ness and known to fishermen far and wide. Later I lodged very comfortably in new forest-workers holdings, and what grand folk they were.

Lon Mor is the Gaelic for big waste. After the downright and phlegmatic Fifers I was back among Celts, and the work kept me four days each week in daily contact with the small squad allocated to Experiments on the peat-bogs from 1925 to 1928. There was big Allie Macdonald, a slow spoken and somewhat inarticulate and cumbersome giant; a would-be follower of Karl Marx, given to philosophic doubts which burst forth in short, rhetorical spasms. These were invariably interrupted, either because his slow mind failed to keep up the supply of ideas, or by an expletive from one of his mates. The great draining spade was little more than a teaspoon in Big Allie's hands. But the heart of the squad was 'The Gerrachan', a small, ginger haired, cheery, effervescent morsel with laughter-puckered eyes. He talked and worked incessantly and was never limited in his sparkling outpourings by truth, fact or logic; and nearly every sentence was

punctuated by a skirl of laughter. He would get very worked up over a supposed injustice until the flaws in his own argument tickled his fancy and the skirl rang out again. Don't think this interrupted his work, he never stopped unless momentarily to straighten his back before another onslaught with the great spade or draining hack. No team with a Gerrachan in it was ever depressed for long. The team was rounded off by a strange but loveable soul called Huack Cameron. His black oily hair sported ringlets by his ears; in appearance he might well have been Spanish, and medieval. The sea was in his blood, and shipping his dream, yet it was said and I believe rightly, that the furthest he had ever voyaged had been short, lock to lock trips on a drifter on the nearby Caledonian Canal. Tonnages and the dimensions of liners and battleships he would supply on demand and there was never a smile; the sea was a serious subject. Very slow and deliberate in his words and actions, yet it was a delight to watch Huack bottom a drain on the almost level floor of the bog. No computer could have calculated the tiny fall more precisely, for when he had finished there would not be one spot in the hundred yards where a spoonful of water was lodged. His craftsmanship may well have sprung from his study of navigation, which, as an exact science allows for no mistake.

The work, the laying down and comparison of various treatments in well replicated series was intensely interesting and became more so after one or two seasons as the effects of comparison began to be apparent. You may read all about them in John Zehetmayr's Bulletin; but very broadly speaking, Lon Mor within a few years proved: (1) that Turf-planting was essential as trees died if planted directly into poor, surface peat; (2) that phosphate was necessary for trees to start growing on such peat, whereas other elements had little or temporary effect (3) the Species trials on Lon Mor showed which ones held out any promise, and (4) a host of other experiments and preliminary trials at least showed results or tendencies worthy of further study. None of this could have come about without Steven's basic work which showed clearly that tree roots when plunged into raw, wet peat soon perished or merely existed, and that no growth was made by plants until new roots sprouted and ramified practically on the surface among the most superficial roots of the natural vegetation. The lay out of the first Lon Mor experiments was designed with this knowledge in mind by Mark Anderson whose clear and logical mind sought out to establish facts - one at a time.

These Lon Mor experiments were backed up by others, not only within Inchnacardoch Forest on blanket bog slopes, but at Achnashellach, Glenrigh, South Laggan, on the Black Isle and at Borgie near the Pentland Firth. Almost all were on poor quality peat-clad sites. This spread provided opportunity for me to get to know the Highlands and to meet some great characters.

Anderson has planned and established the 1925 experiments before I came; also he had planned the 1926 lot which I established, but that year he left the Commission to become Forestry Inspector in Eire. By that time I was assisting and possibly influencing his ideas for the 1927 experiments. There was now no Research Officer for Scotland so I was left very much on my own with infrequent visits from the Chief Research Officer in London, but I was greatly stimulated after Anderson left by a visit from R L Robinson, then Technical Commissioner. It was his first visit to the Lon Mor experiments and he was evidently impressed: anyway, within a few weeks he had raised my grade from Foreman to Grade I Forester to act as Research Forester, Scotland: this he accomplished by stating simply that the promotion, if opposed would not be offered elsewhere! I had at the time been in correspondence with the Professor of Forestry at Aberdeen about taking a degree, but gave it up on Robinson's assurance that a course at the Imperial Forestry Institute at Oxford later on would be borne in mind, if circumstances permitted. He kept his word and in October, 1929 the circumstances actually did permit. The stimulation derived from the Technical Commissioner's visit resulted in the number of new ideas and experiments rocketing in 1928.

Dr Anderson returned to Britain and to the Research Branch in July, 1928, and was reinstated in Edinburgh. The following year he was transferred, bitterly against his will to Oxford to become Research Officer England and Wales on Steven's promotion to South-East England Division. Anderson actually returned to Ireland about a couple of years later! James Macdonald took over from Anderson on the latter's posting to Oxford in '28, and was my boss until I left for the Imperial Forestry Institute in the following year. I am sorry to interpose such a catalogue of moves, but Anderson's gavottings to and from Eire which influenced me considerably are otherwise very hard to follow.

Although still stationed at Fort Augustus my widening territory made it possible for me to meet Foresters and Officers further afield. The local Head Forester of Inchnacardoch was an Elder of the United Free Church and a very worthy man. John Cameron had been Lord Strathcona's Head Forester at Glencoe, which property John Sutherland, our Assistant Commissioner for Scotland had factored. Cameron's technique was probably the best in the country at the time of his transfer to the Commission. He had been influenced by many visits from Professor Nesbit when the latter held the Forestry Chair at the West of Scotland Agricultural College. Cameron was one of the vintage of private estate officers who wore collars, it not ties. When he came to Fort Augustus he wore a 'dickie', a stiff linen collar, with peaks, which appeared part of the shirt front. However, when inspecting operations in progress in the Nursery or on the hill he would, on seeing a tool badly used, seize it from the offending workman and start vigorously

to demonstrate the proper method. Invariably the 'dickie', came adrift, and he would snatch at it, tear it off and demonstrate uninterrupted.

A tendency to flap his arms and shoulders which the Highland Cloak he often wore exaggerated when he was worked up, earned him the name of 'Beeswings' among the workers. Every Saturday at one o'clock 'Pay' was carried out by him and his clerk. That operation and its preparation until 2am that morning, probably took a lot more out of him than anything else. There was a story about travelling-money (to South Laggan station) of two shillings and six pence per man being laid out ready on scraps of paper with each man's name thereon. Inadvertently one man, Scott had been given the two shillings and six pence off Brown's piece of paper and had gone off. He had to be recalled into the office when Cameron discovered the mistake and the half-crowns were solemnly changed over. One day Mr Cameron took me to Portclair Forest in the sidecar of his BSA motor-bike. He always drove noisily in first or second gear. On the hill climbing up from Loch Ness-side a push cyclist passed us without undue effort and Cameron roared in my ear - "That man is going at an awful rate!" His assistant Forester was one John Gunn, a fine looking ex-soldier who had lost an eye in the war; he later became Forester in charge of Dornoch Forest.

George Home was the District Officer for Western Inverness-shire - a Hawick man - in his prime. As mentioned, I had at first to give him two days per week of my time, and certainly enjoyed the arrangement. We spent many days laying off rides between compartments for future planting on the side of Loch Ness, where the steep slopes worried us little, both having useful hill legs. When our lines passed through natural Oak Wood, the big trees interfering were felled and left lying; such oak being unsaleable there and then; indeed the intermediate trees were later girdled to die on their feet and so allow the Sitka Spruce and, lower down the Douglas Fir to develop. I was involved with him in the acquisition of the great block of land on both sides of Glengarry. This gave us some extensive surveying, and when the planting limits had been mapped I have vivid recollections of Home standing upon a spread of the six inch maps which covered the floor of the largest room in his office, while with a large white-wash brush he applied blue water-colour to the great sea of 'unplantable' around Ben Tighe. I was lucky to have to help him with the 1926 Woodland Survey and remember well, among other estates, Stronlarig - a Lovat property in the high hills to the south-east of Loch Ness where there were some plantations of rather exotic conifers such as Black and White Spruces.

Away in the south-west of the county I had to plot the woodlands in the fascinating area between Loch Eilt and Eilan Shona. A mid-day meal shared with the ferryman

- one Angus the Tailor - and his family from a pot of potatoes and another of boiled herring deposited on the bare table, without plates, spoons or forks was a highlight of that visit. Not far from there I remember calling on the Inchnacardoch Nursery-foreman's mother in a cottage on Shona Beg. It was my first experience of talking through an interpreter as the lovely old lady had no English. George Home unfortunately contracted kidney-trouble some time later, which cramped his style entirely. He had been a keen stalker and spent many a day in the far recesses of the hills. Possibly all this was above board, but a trick he had of half-closing his eyes and looking sly when deer were mentioned, rather suggested otherwise. I still wonder, but what a grand chap he was.

Frank Scott, Divisional Officer North (nowadays of course Conservator) was possibly the most dedicated forester of all. To drive with him, especially in his earliest bull-nosed Morris was an experience, as his eyes seldom looked at the road at all if there was a tree, a plantation or a plantable slope in sight. Luckily I was not with him when he did go off the road and into a deep pool in the wild headwaters of the Garry beyond Glenquoich, but Scott's was a charmed life and he broke out of the submerged car and next day was back on the job. He retired many years ago and developed a big consulting practice thereafter.

It is difficult now-a-days to understand the rather crude ideas on planting and species selection which prevailed in the Commission's early years. Most Officers and Foresters had their own ideas as to the causes of failure, but until experimentation was well under way and showing clear results, there was, strange as it may seem, no clear realisation of cause and effect. I remember well the sweeping conviction that expensive pit-planting had been proved to be necessary at Inchnacardoch, but this was in truth because the 1924 area concerned was on pretty good birchwood land which had been cleared. Most of that area had what was later to be described as brown earth soils, while the wretched growth on previously planted land was largely on pretty terrible blanket bog.

It is strange to remember how dangerous it was if a senior officer suggested an experiment he would like to see tried out, and the experimenter hinted it would, of course, be necessary to introduce a 'control' (ie - the normal method) alongside the suggested new treatment. However, as the experiments developed and control measures proved their worth this difficulty vanished.

My first extensive lesson in ground variability was provided in 1926 by Dr Steven. He had come over the Border to attend the most impressive concentration of Forestry experts yet mounted in these islands. Anderson being in Eire, I was ordered to attend. The meeting took place in Newcastleton and we all put up in

'The Grapes.' In addition to the Chairman - Lord Lovat, there were: Robinson the Technical Commissioner, Pritchard and Sutherland the English and Scottish chiefs, Taylor - then Acquisition Officer for England, Guillebaud my Chief Research Officer, Murray and Hopkinson Divisional Officers from both sides of the Border, and Drs Laing and Fraser, Aberdeen University experts in Mycology and Soils. The object was to examine results to date in Newcastleton Forest and in the Buccleuch Plantation at Moorburnhead. Both areas were typical of much of the hill country on both sides of the Border, and the whole exercise had very much in mind the extension of acquisition on such 'White Hill Lands' in the North Tyne valley.

Of Lovat, I remember his keen eye and an unhappy moment on a recently and rather poorly established Newcastleton planting which the party was walking across in line a-breast. Suddenly "Sheep!" said Lovat looking angrily at a badly nibbled spruce plant, "Hares I think" suggested Murray in his quiet voice; two more strides his Lordship took, bent down, plucked and held up a long wisp of 'Black Face' wool: there was no further remark. At dinner one night, I was fortunate to put the name on a species of oriental Larch which Lord Lovat was describing; it was *Larix Kurilensis* and I had come across it in his brother-in-laws nursery at Keir. It was sheer luck, but eyebrows went up along the whole table! Other items which stick in my memory were the tremendous fuss my hero and patron Hopkinson made about the disappearance of his shaving brush - not one of the party felt above suspicion! Then there was the typical remark of another senior officer - Taylor - who on asking and being told the name of a grass or herb would always say:- "Yes! Yes! Of course!" - though we all knew he hadn't had a clue. I have mentioned the introduction Steven gave me to ground variability. He took me under his wing and together we got down to a fairly meticulous correlation of vegetation condition or type immediately outside the plantation, with tree growth, by measurement, immediately inside. This definite and constructive line of investigation, in place of the more usual rather aimless wandering within a plantation punctuated by spasms of airy conjecture, was new to me and immediately appealed. I was to do a great deal of such work in the years ahead. G K Fraser's systematic sampling of peat and the various types he differentiated had distinct connections with our vegetation types.

The forester at Newcastleton was the famous J F MacIntyre who spent virtually his whole working life there although he hailed from Lochaber. He had been trained under Cameron at Glencoe, and though both had done some turf-planting there under Nesbit's persuasion, neither had gone to the trouble of employing the method in the new, Commission woods. Possibly they had suggested turf-planting and idea had been turned down in view of expense. In fact MacIntyre

has gone quite the other way by starting a form of planting which resulted in a square of turf being dug out by a so-called 'rail-spade' and the tree plant being inserted in the middle of the pit where, sooner or later it was found dead in its pool of water. Obviously it might have flourished had it been notched into the discarded turf. In any case one outstanding result of the great Newcastleton meeting was the beginning of turf-planting on quite a scale in the following year, and not only at Newcastleton.

Another character among the Foresters was also a Lochaber man - Jock Kennedy. He looked exactly like a later Television star, Michael Rennie in his prime, perhaps a trifle more rugged. There was artistry in his tongue and he was unequalled in both story-telling and romance. When Forester at Glen Nevis he took me one night over the river of that name and up the Ben to see the sunrise. From the top of the old Observatory when the sun did rise, our shadows fell over miles and miles of the cloud mass we had just climbed through - a flawless 'Spectre of the Brocken'. I frequently lodged in his ex-farmhouse when soon afterwards he took over Glen Righ Forest, where we were building up an important group of experiments on poor hill peat.

As a Highland gentleman he fed and spent the evening with me in the parlour, and with perfectly easy grace would rise from the table and press the bell for his wife to bring the next course! I had by then a small, air-cooled Rover car which we used to take out the long track through Glen Shellach, and on the way there was a sulky bull which had to be avoided. Typical of Jock Kennedy's stories is this one told at my farewell dinner - nearly forty years later. One day at the gate in the Glen the bull refused to budge and I am credited with manoeuvring the little car until the practically red-hot engine was pushed suddenly and solidly into his rear. There was a wild, unearthly roar - the bull leapt off the road, streaked up the hill and disappeared over the twelve hundred feet horizon, never to be seen or heard of again!! Glen Righ was a very wet place, and many a day we worked in continuous downpour, but I remember so well the wonderful rosy warmth of Jock Kennedy's fireside after such a day. I was to meet him a lot in the future.

From about 1927 I had nursery experiments to supervise in the Royal Botanic Gardens, Edinburgh, where the Foreman was a very expert gardener from the North-east, named Charlie Lamont. He was most interested in our nursery projects and always laid on a sound trainee or two to do the actual work. Charlie had probably the best practical knowledge of tree and shrub identification in Britain, and it was exciting to get tips from him about the taste, smell or colour of an uncommon species in bud, leaf or root. This was to learn something striking and

often quite exclusive. Draught he taught me rightly to regard as the number one enemy of plant growth. He had one idiosyncrasy; if the weather was distinctly unseasonable and holding back growth or the work, he took it as a personal affront - inspired by a Deity with a poor line in practical jokes, and would say - "It's fair rideec'lous!"

During this period Anderson had started me off on cone collection from truly native remnants of Scots Pine which led me into many glens where such existed. The first, and furthest south was at the head of Glen Falloch near Crianlarich. Then a glen off Glen Orchy, and an area not far from Tyndrum, and Crannoch Wood on the West Highland Railway on the edge of Rannock Moor. In the north-west, Achnashellach had fine remnants, and Rhidorroch, further into Wester Ross, and Shildaig. We did not stop much for weekends at that stage, and I remember the Achnashellach Forester - Danny MacDonald feeling very guilty as he helped me up in the crowns of the Pines by the roadway one Sunday morning at Shildaig. Folk going past on their way to Church would not have been more surprised had we been baboons.

Other races of Scots Pine I remember collecting were at Glencoe, Glen Moriston and Loch Tulla and Ballochbuie near Balmoral. We made our own little seed-kiln for extracting small and precious lots in our office at Inchnacardoch. Transplants arising from these seed lots together with some additional races from East Scotland and one termed England East from the Hedges in Norfolk, were eventually planted out in various forests, both in small, replicated units and where the supply permitted, in sizeable blocks. Curiously enough England East lead so far as height was concerned. (It is claimed to have originated in Donside, Aberdeenshire.) Ballochbuie, and also a Beaully lot were among the fastest growers. As far as North-western origins were concerned 'Achnashellach' was outstanding both as regards height and form. It was eventually included in an International Trial organised by the Professor of Forestry at Danzig.

By 1929 turf-planting had been adopted in every progressive district on the peat types for proper tree growth, but every turf had to be turned out of drains by manual labour. A first trial of a shallow-turf providing plough was designed and tried by Anderson in 1926. Its draught was too much for a pair of horses and indeed it caused the death of one of the Postman's pair at Glenrigh! It was different on the hard-packed heaths in the east where a three horse plough did good work in 1926 or 1927.

Chapter IV

1929 - 1932

Oxford, Foreign Tours and Sample Plots

Robinson's decision to promote me and send me for a course at the Imperial Forestry Institute, Oxford, came in the end like a bolt from the blue. There were so many experiments on hand and so many ends to tie up, but I reached Oxford in October, 1929. H M Steven the then Research Officer (England and Wales) who was stationed there acted as the Institute's lecturer in Silviculture. Once again he took me under his wing and helped in the most unobtrusive way to introduce me all round and effect the change in circumstances and environment which might otherwise have been so difficult. He himself was a clear, good lecturer and dealt, during different terms with first, Forest Nurseries and then with Experimental Methods and Statistics. Having previously been Research Officer, Scotland and later concerned in the famous survey on the Borders, we had much in common. If anything new was on foot in England or Wales he took me with him, and so, along with G V Jacks the Soils man from Rothamstead who, like me was taking a course at the Institute, we were present at the first ploughing trial at Allerston on the Yorkshire Moors where a Ransomes tractor-drawn plough was tested as a preparation for planting.

Mark L Anderson succeeded Steven in the post at Oxford, and I was lucky to sit under him occasionally in the following year, and to compare their sometimes divergent views on the same subject. Anderson's lectures were painfully detailed, being meticulous catalogues of well arranged facts; but in the field excursions he was inspiring and easy to follow. Steven was always sane and shrewd and could sift the meat from a subject: his successor tended to be tactless and touchy. Anderson was given to alternative spells of gloom (often inspired by his scathing opinion of some-one in authority) and brilliance derived from his tremendous knowledge and equally keen powers of observation and contrast. Once one became used to Anderson's ways it was nothing to suffer the periods of gloom and nonsense quietly, under the certain conviction that the spark of genius would begin to glow and develop sooner rather than later. He did not remain at Oxford that time but was soon away back to Eire as Director.

Fashion plays a big part in forestry as in everything else, and that explains why so much of my time at the Institute was spent studying Forest Soils. It is significant of the obtuseness a craze can produce that the major practical exercise which nailed me to the laboratory in the School of Agriculture nearly every afternoon, entailed the detailed, mechanical analysis of a chunk of Laterite from the Gold Coast. Although the lectures in Agriculture were divided between Professor Watson and a Mr Morison, my soils supervisor was one Robin Clarke who saw me occasionally when he was passing to or from the 'Lamb and Flag' - where he enjoyed the beer. Years later I met him at a Soil Scientist 'do' at Crieff: he came over to my table, raised and smelt my glass, and said "My God! Have they taught nothing better, even yet!" Clarke was one of those worthies who could get away with anything, through a wonderfully cheery countenance as much as expert knowledge of his subject. About 1935 he was a local leader of the International Soil Congress excursion in Bagley Wood at Oxford, and I saw him lead a great, long tail of eminent scientists (who were used to deep soil-examination pits with steps leading down) through a difficult tangle of bramble to find a wonderful profile of a Rhenzina. The pit was a rabbit scrape!

For Silvicultural Systems I sat under Professor Troup, a great compiler but a colourless lecturer and, I'm afraid, personality. However, personality overflowed from Ray Bourne who taught Silviculture from the then novel standpoint of Ecology, brilliantly and with compelling dedication. Tours with him in Europe were hard work, but to many senior students from the School and to most Forest Service men taking the Institute course, and with silviculture in their blood, they were a revelation; the opening of a door. For the men with poor appreciation of vegetation types, Bourne had little time and they disliked him. He was ruthless when it came to collecting plans or exercises on the dot. One night at Tronçais in Central France, two men came to tell him that they had been wired for by the Colonial Office to report in London and so could not finish their reports. They were promptly told that as the train did not leave until 7am they had all night, and to get on with it. They completed the task by 5am. I often wonder if many youngsters ever knew what work was until they ran up against Ray Bourne.

A H Lloyd, ex Burma, who was in charge of Forest Engineering and Surveying was a kindly soul who did a lot to entertain new arrivals. He fathered the company on some of the Continental tours. He had two foibles which worried me a bit; first, the stage Englishman's attitude to foreigners when he would talk disparagingly about them, aloud in hotel or train. Second, a quite baseless conviction that the Forestry Commission was a bad department managed by inefficient nobodies; most second rate compared with Colonial Services. With this thesis he undoubtedly poisoned the minds of some students in impressionable years, and lost to the home service a few promising men.

Incidentally one Forestry Lecturer at Edinburgh preached the same dis-service about home forestry with just as little knowledge. He was D I Fergusson who hailed from the Braes of Balquidder and preceded me at Callander High School where he was known as Neughie! Far the most stimulating lecturer at Oxford in my time was Hiley, who later went to Dartington. His subject was Economics and to one who had until then little leaning in that direction, I found him quite inspiring. Possibly the fact that the Commission did not want me to dissipate my energies in that direction or judge it would be beyond me, added to my interest and determination. Hiley, from the moment he learned that I had been excluded, threw the door wide open for me and gave me very special attention.

As I was taking neither Entomology nor Pathology I only met the two other great Forestry characters at tea in Museum Road - they were Dr R N Chrystal and W R Day. There I also used to meet S H Clarke, Rendle, Desch and Dr Chalk. Meeting many of the undergraduates not only in School but on tours was an opportunity which stood me in good stead later on. There was M V Edwards, a Burma probationer who went there and after sixteen years, including awful times during the war, walked into my Silviculturist North office in Edinburgh. He was smuggled into a very modest job there and then as a foreman, from which he went on until he eventually took over from me on my promotion to South Conservancy in 1951.

In the same School year as Edwards was R E Fossey who entered the Forestry Commission in South-east England. He was to join me in Research branch for a spell in 1933, but his heart was not in that side of Forestry. Much later he was my senior assistant in Dumfries when I took over that Conservancy, and remained so until I retired in 1965. Fossey's demanding exactitude, his insistence upon complete precision, made him the ideal officer in charge of supplies of all sorts from tree-plants to tractors and ploughing machinery. The idea to make use of him for this functional job came from the then Director (Scotland) Henry Beresford Peirse; I welcomed it and lived to be certain of its wisdom.

Obviously not everyone can be the most successful all-rounder; indeed in such a post quite exceptional qualities in one direction may be only half or less employed. Peirse himself was in that same school year at Oxford, a little older than most as he has read History, he stood out among his fellows as indeed he was to continue to do ever after. He was first posted to the Forestry Commission as District Officer at Fort Augustus and I saw quite a lot of him when I returned to Scotland as Research Officer, as a high proportion of our experiments were thereabouts. Later on I was to serve under him when he reached the highest post in Scotland and thereafter in Britain. He was a fine Director whose decisions were clear cut

and one was left to go ahead: there was none of the 'everything from foreman upwards' about Peirse! Especially do I treasure the memories of wonderful days at Geneva and at Rome with him, when he led the British Delegation of the FAO at the United Nations Buildings.

Most of the others at the 1929/30 year went abroad. The second year, with which I attended some classes and foreign tours, had a number of men I was to see more of anon. There was Andrew Watt from Edinburgh, a rather colourless chap with an occasional equine laugh, who was posted to South Scotland as a District Officer in 1931. He rose to be, for a time, the least happy and least useful Director I ever served under. I doubt if he had any real interest in trees although he perhaps had a somewhat academic interest in Forestry as a political subject. I cannot remember having seen him really interested or sure of himself in a wood! He felt safer and may have done useful service in the Technical Officers Association of which he was a delegate and picked up the Trades Union jargon.

Hamish Maxwell who went out to Burma from that class, got into the Commission after the war and was one of my colleagues as a conservator after 1951. He had charge of North Scotland for years and although now retired still has wide interests in forestry. Alan Connell went straight to the Commission. He was quite outstanding as a keen student and hard worker and with Jock Maxwell-Macdonald led the Working Plan party to which I was attached under Bourne at Tronçais. We all expected great things of Connell but he never really got to know or to relish silviculture, and Steven who had him on his staff in East Anglia and had taught him at Oxford, told me long after that Connell's utter lack of silvicultural appreciation had been the biggest surprise and disappointment of his, Steven's, career.

My first recollection of Jock Maxwell-Macdonald was in an exercise under Bourne in Bagley Wood. He was wearing rough homespun tweed (made at Kilmahog) and was so unusually competent with axe and saw in the group that I thought he must be a forestry worker sent up by an interested Laird! It was some weeks before I discovered I was wrong. He was always interested, original, and energetic. Not really an academic type, he simply overflowed with determination to master anything he came up against. I saw a lot of him after Oxford when he was District Officer on the Borders, and after the early stages of the War in which he lost a leg, he came on to my strength as part-time District Officer in Argyll, unpaid, as a result of a kindly wangle organised for his well-being by Sir John Sutherland and myself. Neil Graham Menzies from Haliburton was another of the Oxford class, a nice fellow who died within a few years of coming down.

Then there were the Post Graduate men. From Australia I remember with special affection Max Jacobs and Andy Hone for we had some great plays together, such as a day at the Derby where Hone was quite upset to think he had started me off on another downward slope. Max Jacobs left me one day in France and, just for fun joined me a few days later in Jutland where indeed we wrote a joint report on Danish Forestry and the Danes for our respective Services. I remember little about it except some reference to red haired Italian women who, Max in the ethnological section of the report, attributed to Viking visitors to that country. Although he was coming to Scotland immediately, his horror of the sea was so great he decided to go overland via Calais and Dover. Enviously he saw me off at Esbjerg. It turned out to be one of those horrid crossings diagonally across a big swell, and I had to dash from the dinner-table before the shore lights had disappeared. We met up again and saw a good deal of Scotland and of Forestry there before returning to Oxford.

The last time I saw Max was after a note had been handed up to the Platform at a Land-Use conference in Christchurch, Oxford about 1960. It asked me to meet him at Miss Guiney's house in the afternoon; she had been for many years a Librarian at the Institute, and a great guide and friend to us all. Max Jacobs had been Principal of the School of Forestry at Canberra for a number of years and became Director General of Australian Forests thereafter.

As mentioned, I enjoyed meeting G V Jacks. As he too concentrated on Forest Soils (to which he subsequently devoted his life) we met almost daily for a term or two. A few years later he was appointed to the Forest Research Advisory Committee and it was good to see him again when that body met in various parts of the country. His father was L P Jacks a famous Divine in Manchester, and his great friend at Christchurch had been Malcolm Macdonald, son of the then Prime Minister, so he knew that family well.

On refresher courses at the Institute were quite a number of foresters on furlough after a spell in India, Burma, or Africa. There was quite a big and lively bunch of Edinburgh graduates who made themselves noticeable both in Oxford and on tours, largely because they swaggered a bit and, unlike most English cousins, had not quite the same capacity for beer. Among the best of that group, I remember Mat Robson who during the period played Rugger for Oxford and for Scotland. He did a tour or two in Nigeria and later joined the staff of the Faculty of Science in Edinburgh. Also Watsonians ex Edinburgh were Ian Beveridge and Duggie Fyfe who were on leave from Nigeria and Malaya respectively, and Kenneth MacDonald from Kinlochewe, Loch Maree, who was back from Northern Nigeria. Then there was an amazing man named Duncan, a forest engineer from India

who had built a forest railway there which never did much in the way of transport although he had equipped it with Stations. That did take a trick! He was taking Geology as one of his subjects and when on tour would collect and hump at least half hundredweights of rock with him from place to place. There was a particularly wild Irishman called Martin, and a fine, middle-aged Scot named Cameron in the party, both on special leave from West Africa. They both returned there and unhappily died very soon after.

It was while at Oxford that I met C W Scott for the first time. He was staying with A H Lloyd who had been a colleague in Burma. Scott had a Moth of his own in which he had, with Lloyd, visited Russia in the long vacation. I was booked to fly with him once but he hit a sheep when landing on the previous day and so I didn't. This had put flying into my head and I had several lessons at Sonning near Reading. Scott had a brilliant war record. Later on he settled down at Princes Risborough on the Forest Products staff and became, in time, Editor of 'Forestry'. Scott took international politics very much to heart and was usually worried and upset over the people's tribulations in one country or another.

I almost forgot another character from these days - T N Stoate, an Australian who joined the Institute in 1931 and studied particularly Experimental Methods and Statistics under M L Anderson. When I became Sample Plots Officer he came on tour with me. He was 'pernickety', determined, and perhaps not terribly quick in the uptake, and of many who came to see sample-plotting demonstrated, easily the most painful to teach. I was not to see him again for thirty four years, and that was in Vancouver Island where he carried out some forest experiments for MacMillan, at Blodel near Nanaimo. Poor Stoate had left Australia after losing both his wife and his son, and been taken on to the Forestry staff of Washington University. They told me on Vancouver Island how he had set about investigating a disease in Douglas Fir trees by driving copper nails into the stems.

I had had only a few days practical experience of Sample Plotting in 1923, when in 1930 I was suddenly instructed to leave Oxford after the Hilary term and take over from James Macdonald, who had been in charge of the Statistical Branch for the last five years. He became then Research Officer, Scotland. All this was brought about by Mark Anderson having again left the Commission to return to Eire, this time to become their Senior Inspector.

H M Steven, before Anderson had also had five years in that post. I was to hold it for only half that period. One of the truly important points about my predecessors in the Statistical job was that each was first and foremost a silviculturist - Robinson

had undoubtedly seen to that. Each one saw much more than the actual plots to be thinned and measured in moving half of the year over England and the following six months over Scotland. Indeed they built up in most localities a knowledge of the woods and tree species, of the soil types and also of the private estates and their forestry and foresters, which was unique. In fact, it was a great training post, and although each man became keen and did a special study of one statistical matter or another, there was no chance of their being carried away by figures. Much later I had cause to complain that there developed a pathetic concentration upon the basal area at breast height, which men with little or no silvicultural appreciation could measure. Neither the crowns above nor the roots below were given thought! What a queer result might be achieved in the 'Miss World' competition if breast measurement alone was the criterion and neither the legs, below nor the crown, above could be considered?

Forestry is probably little different from other pursuits in so far as it could be managed well by a man who had come from one of its many branches, if the individual was capable of listening to and assessing fairly the views of confederates with other backgrounds. But, like farming, it is capable of being led to destruction by dogmatic control from non-technical minds. In agriculture, however, with its rotation of three to five years there may be opportunity to put things right eventually; but forestry has rotations of forty to seventy or more years, and there may never be a chance to correct an early silvicultural error.

The first Sample Plots I had to deal with were a set at Dulnain Bridge in Speyside. They were large plots and as the team were on holiday I marked the thinnings alone. Besides being cluttered up with spider webs, in the dense B Grade plot especially, my neck became stiff and sore through looking up at the crowns, day after day! Following lectures on experimental lay-out at Oxford, these extensive single plots made me determine to have smaller and well-replicated ones at the first opportunity. Part of the time a friend, Michael Milford, then a research student at the Clarendon Laboratory in Oxford, camped with me in a lovely spot near the plots, with the most wonderful view of the Spey and the Cairngorms beyond. As a physicist he became interested in tree height measurement and together we certainly made improvements in technique which resulted in better measurement and sound girth/height distribution of the sample trees.

With a happy team of three or at most four young men we remeasured plots in Scotland from Beaulay in the North to Shambell - ie in Dumfriesshire in summer and autumn; then Edinburgh was my headquarters. Thereafter, Oxford was my centre when the English circuit was tackled, and it stretched from Northumberland

to Devon. We met many keen foresters and forest owners. In both countries we often had visiting pupils; men who came from Institute courses to study sample-plotting in action. I remember a lively time when measuring plots in Windsor Great Park with visits to the Boat Race and also to an International at Twickenham thrown in! But the highlight of my time in sample plots was undoubtedly the finding of a wonderfully uniform stretch of twenty-year-old Norway Spruce at Bowmont in Roxburgh-shire, and the establishment there of plots in a Latin square. There were four replicates of each of four treatments, with tenth acre plots each separated by narrow buffer strips.

Down the years since 1930 the Bowmont Plots have yielded valuable information, and certainly for twenty years at least were, according to Professor Champion, unique. It was exciting after each quinquennial measurement to find how much, compared with the practically unthinned 'B' grade, had been produced under the other types of thinning. For a long time the heaviest 'Low' thinning plots had increased by thirteen per cent, while the Light Crown thinning had made eight per cent.

Chapter V

1932 - 1951

Edinburgh, as Research Officer Scotland and Silviculturist North

From the day in 1923 when M H L Anderson booked me as a very temporary relief on the Sample Plot Party, the notion to get into the experimental side germinated. It was stimulated when H M Steven gave me plots to lay out at Edensmuir in '24: I was thrilled in the following year to be appointed the Commission's first Research Foreman and soon after Research Forester, Scotland. I had loved my time at Oxford, and subsequently on Sample Plots, but I can truly claim that the biggest thrill, and the only time I was impelled to send a joyous telegram home was when I was suddenly appointed Research Officer, Scotland. It meant being stationed in Edinburgh. Incidentally, I distinctly remember being curiously relieved by the thought that the danger of falling under the spell of Oxford and southern England's pleasant and relaxing charms was past. I well realised that my greatest problem, and indeed my overwhelming ambition was to make trees grow satisfactorily where they naturally were disinclined to do so: on the poorer heaths and on the extensive blanket bogs of the north and west, also I knew that my Chief Research Officer, W H Guillebaud in London would be very strongly behind me. I was glad that my appointment entailed supervision of the Sample Plot Party during their half year in Scotland, and that my special interests in the thinnings would be continued.

Good planting stock being fundamental in afforestation work, Nursery Experiments were rightly given priority by the Commission, and during this period nursery manuring experiments exceeded all others in number and complexity. Scottish forestry was specially lucky, early in my term as Research Officer, to secure the interest and co-operation of Dr A B Stewart, head of the Chemistry section at the MacAuley Institute for Soil Research, who planned a long series of Manuring Experiments with me. After several years the results showed, in a nutshell, that simple applications of all the usual fertilisers gave distressingly poor results. About this time, Dr M C Rayner a famous researcher at Bedford College (named by Steven the Prima Donna of Mycorrhiza) had been growing unusually large tree plants with applications of her fungal media supplied in compost usually derived

from spent brewery hops. These prepared composts she insisted in applying to unpolluted, natural soils which were unlikely to be occupied by harmful fungi such as might inhabit an established forest-nursery. Indeed she more than hinted that this would be due to the use of artificial fertilisers. Suddenly one day when talking over the whole problem with Stuart we saw the light. If Rayner got good results in what amounted to sterile soil then, if we were to sterilise established nursery soil, we ought to get the same spectacular results. We steam-sterilised parts of several nurseries forthwith, using a gorgeous old steam boiler which had a long chimney and a rising-sun top - like Stephenson's Rocket, that summer I was on holiday with the family at Crinan when a phone call came through from James Farquar our Research Forester. "Look here" he said, "There's something going on in the sterilised beds, the seedlings in them are growing at an awful rate!" It had worked, and henceforth it was possible to produce in the ordinary nurseries seedlings just as large as in the Rayner sowings. Two points here are worth recording: Rayner despised artificial fertilisers, but her hop composts were found to be rich in phosphate! Secondly, manuring experiments made, after this, on sterilised ground made much more sense, proving that the root of the trouble had been harmful fungi or other organisms in the soil. Rayner made great claims for the benefits of the Mycorrhiza she added: she would be more famous today had she noted and published the harmful soil fungi she excluded.

Some years later Professor Brooks of Cambridge had become incensed because the minutes of the Nursery Advisory Committee, which he chaired, reflected much more the views of the Forestry Commission's Chairman than the findings of the committee. He revolted and I was suddenly elected secretary in place of my chief, Guillebaud, a most embarrassing position, but not even Robinson or my chief himself subsequently took it out on me. Brooks was a brilliant as well as a delightful and amusing character, and of many meetings with him one stands out in my memory. That meeting was at Oxford and, unlike the remainder of the committee he and Dr Rayner were booked in at 'The Mitre'. Judging that an overdose of Rayner would be hard on him, I went over to the hotel after dinner and sent a message up quietly. He made his escape and a wonderful night followed: first of all in the Senior Common Room at Magdalen and later with the Regius Professor of Botany in his Botanic Garden House. He was an Australian which perhaps explains his making tea for us in the small hours. I had many good friends on that committee: Jacks, Stewart and Steven among them.

We had, over six years, repeated many of the nursery trials with a view to averaging to some extent the weather effects of the various seasons, and gradually it became evident once soil sterilisation became the practice, that the only thing we could

not control was the weather. That, towards the end of my stint, led to experimenting with glass-covered and heated seedbeds and actually to the raising of several crops of seedlings within one year. Michael Edwards had been in charge of these nursery experiments, under me for some five years before I handed over everything to him in 1951.

Undoubtedly the most rewarding projects were on the poorest types of ground, from Borgie near the Pentland Firth to the borders, and after the war when my title became Silviculturist (North), ie from Shetland to the Pennines and Yorkshire Moors.

By 1928 direct planting on poor *Scirpus* basin peat and blanket bog was known to be hopeless. Before the outbreak of war in '39 most of these types of peat were afforested by some form of turf planting to give the plant immediate advantage over the waterlogged ground. All the work was manual until then, but early in the war with labour so scarce, caterpillar-tractor-drawn ploughs began to be employed in a few places to drain at intervals of about seven yards, and from the turf turned out small slices were laid out some five feet apart on which to plant. It was just after the war, however, that basin and blanket bog on the Lon Mor were ploughed at six foot intervals. This was done by caterpillar tractor and a Cuthbertson Draining plough, and the area successfully ploughed was employed for the first experimental planting on ploughed peat. But, as early as 1928 an area of peat was 'mock' ploughed at Borgie by hand labour, which for several year thrived prodigiously but came to an untimely end when the forest was swept by fire some five or six years later.

Very soon after the war all peatland experiments and most ordinary plantings on peat were established on single furrow ploughings, spaced about six feet apart. Strangely enough the use of phosphates when planting, though accepted as essential not only in Research Branch plantings from 1928 but also in North and some other Conservancies, was not adopted in South and elsewhere. Many failures resulted. This was partly due to an ill-founded edict put out by Robinson about 1930 which stated "An ounce of Patience is worth a ton of Slag!" The worthy James Fraser, in the North applied many tons of slag he had already secured, and a blind eye to this order! As to species on peat we had - urged by the Chairman, worked hard to get Sitka spruce to grow satisfactorily on the worst peat types with disappointing, even miserable results, although it was romping away on *Molinia* and the other better peats. Lodgepole pine of suitable race was best on the poorest types, and Hybrid Larch gave promise, also Hemlock fir and some American Silver firs.

On the Heath-land experimental areas: Teindland and Monaughty and Clashindarroch in East Scotland and in Allerston on the Yorkshire Moors (which I took over later on), even Scots pine was a slow starter where the surface was compacted and drained badly. Contorta (Lodgepole) was a bit better as a rule. No other species was really promising until much more satisfactory, deep-going and complete ploughing was made possible by using very powerful tractors with caterpillar tracks. Eventually it was rewarding to find the pines romping away, and the Larches, and even to get satisfactory growth of Sitka spruce - the greatest volume producer of all. Provenance or Race trials both on the Heaths and on Peat types were beginning to show important differences before I left in 1951. High-elevation trials in Inverness-shire and latterly on the Pennines also were intriguing. But the Pennine trials had much more than exposure to contend with; fume damage from distant industrial areas killed plants sporadically in a manner which I never heard satisfactorily explained.

From time to time there were pre-Commission plantations to be examined and reported upon. These included the old Office of Woods beginnings of Inverliever, and some of their plantations in the Isle of Man. As time went on it was simple to point out how very much easier and successfully that same blanket-bog or heath could have been afforested with the machinery already at our disposal in the poorer areas. Sir John Stirling-Maxwell's strenuous works at Corrour were in this category although he had made strides ahead of his contemporaries by adopting turf-planting on the Belgian system which he had witnessed successfully carried out on the high Ardennes. But possibly the times I enjoyed most were visits to problem areas either on State or Private land with the Commission Officers for the region. Sometimes the study was entirely their own idea, sometimes it had been demanded by the Chairman, who might or might not be present part of the time. I remember well two days with Archie Ross when he was Conservator, North England. The first was in torrential rain to an area named Spadeadam, north-east of Brampton where I was thrilled to report 'raised bogs each as big as an aerodrome!' The second was to be a section of the Bowland Fells east of Lancaster on a beautiful day where I remember finding the peat on the upper slopes singularly dry and crumbly or riven by drought cracks well below the surface.

Undoubtedly my life as Research Officer North, depended much on the forbearance and help of the territorial officer, and the one who gave most concern, and most joy was the Divisional Officer, and later of course Conservator, North, James Fraser. He was a native of Dingwall, where his father, followed by his brother, long reigned as the local saddler. James was not a large man; he was stocky in build and had close-cropped, faintly ginger hair and a habit, when perplexed or

merely being whimsical, of twirling what would have been the forelock had it been allowed to grow. Of all the Commission's staff, I had long opportunity to know him best; also a high percentage of my experiments and my problems were in his territory. As I have mentioned, he was my first year lecturer in Forestry - straight from the first war Timber-corps and the army, and had little time for a mere boy in a class which held mainly ex-servicemen like himself. He was not a clear lecturer and spoke through closed teeth, or rather dictated, fast! But he did know his stuff. A tendency to bring in references to France and the war was natural to such a class and caused him to mention 'Gerry' frequently and that became the name he won: Gerry. He continued to be known (quietly) as Gerry - when in the following year he became instructor in charge of the Commission's first school of Forestry in Scotland, at Beaufort, near Beaulieu. When he came to visit the Lon Mor with A D Hopkinson in 1925 he claimed not to remember me in Glasgow which was probably true, but I wondered if perhaps he blamed me for instigating one or other of the 'leg-pulls' laid on by my fellows. There was, for instance, the time when an 'Old Clothes Man' was directed to Mr Fraser's room in the belief that the old coat he wore was to be given away.

Although I visited Fraser, with M L Anderson, at the Forestry School in '25 or '26 where some nursery experiments were under way, my first real encounter with him began badly when I was instructed to assess and experiment in Glenbranter Forest where he was by that time stationed as District Officer. Fraser replied to my intimation of impending visit by sending a report of his own on to me; but not going to be put off, I wired to say I was on my way. My reception at Glenbranter was distinctly chilly, and without many words James set off up the hill at a fast pace towards the plot. I followed close behind. He was in top form and had it in his mind to walk me off my feet, but he had made undue allowance for my comparative lack of weight. When, three-quarters way up the hill I drew level and soon began to lead, he gave up, and, when he had regained his breath, began to talk a little about the vegetation. We came downhill much less unfriendly and he invited me in to tea.

Mrs Fraser was delightfully hospitable and their red-haired baby Joan showed none of her father's reservations about accepting me. The hurdle was crossed and there never were recriminations. James Fraser became a great friend and visits to the North, once he was posted in charge, became a delight. He was full of whimsy and took sudden antipathy to certain people which, occasionally would vanish over-night. He got great joy over the doings of his junior officers particularly of one 'Irish' Gibson; of whom it was claimed that he appeared early for breakfast on his first morning in the Inverness lodgings and took as his own portion, all the bacon and eggs intended for the whole house including his senior officer Frank

Oliver! It was the same Irishman who hounded Fraser at the outbreak of war for permission to join the Home Guard. Eventually Fraser told him to come round to the office at 9 pm one night to be shown the order from HQ prohibiting such permission; but after a fruitless search through the piles on his desk he gave up in disgust and told Irish - "Go and join the bloody thing!"

At one stage O J Sangar was given a roving commission by the Chairman to inspect forests throughout the country on his behalf, a move which was much resented by fellow Divisional Officers. I happened to be at Glenrigh Forest with Fraser one morning when Sangar arrived. He was most affable and it was decided to visit Corrychurrachan where I had experiments. Fraser led off along an unusual route across a steep slope and straight into a terrifying mass of boulders and jagged rocks. Making up on him, I said quietly "Why this unusual route?" "Because I want this bugger to break his legs!" was the instant reply, which sizzled out through clenched teeth! Whose legs were more likely to be broken struck me immediately, Sangar being larger and physically in the pink!

Both Fraser and I were very fond of Robinson, but that did not stop Fraser from some eccentric evolutions. Sometimes it might be to avoid, in the course of an inspection, an example of a species doing well which he had been running down. Once, near Garve, we were taken the most circuitous route to avoid a fine plot of Coastal Contorta, growing far better than anything else on the hill-side. I caught a glimpse of it several times and said nothing. So perhaps did the Chairman whose eyes missed little, but both my companions were unwilling to give me the chance to say that a good Contorta was our best hope on such land!

In quite an early encounter with this northern chief I was determined that the only way to get valid information about the fate of plants used to replace failures, used that is to say for Beating-Up, was to make gaps in solid plantings of two, three and five years old and of various sizes, and thereafter to study the resulting growth of the new plants thus introduced. By getting the then Director, Scotland, M Murray to agree that my approach was right, I eventually persuaded Fraser to let me make the necessary holes in his plantation, which he confirmed in writing, adding that my methods 'bordered on the oriental!' Feeling a trifle guilty I went to see Murray. His reply was comforting for he claimed that an oriental approach to Fraser was the one he would have used had he been in my shoes.

On one trip to Borgie, Fraser had a serious labour trouble to investigate - a row between the Forester and one of his squad who were practically all MacKays. I was present at the meeting which was all laid on. The accused on being questioned admitted he had called the Forester "a Pig". "You called me a Bloody Swine" said

the Forester. "Well, that's a Pig isn't it?" claimed the man, at which the Conservator broke down!

He was fond of telling stories against himself and once told me he accused his Private Woodland's Chief, Andrew Crawford of having "an awfully rumibly stomach!". Crawford utterly denied the allegation, and pointed to the pigeons parading on the window-sill. During the war I saw less of him. He was in charge of Timber Supply and my visits were much less frequent. But I do remember very gratefully the time I called in his Office - apparently looking not too well - and he discovered I had to travel South that night without a Sleeper; they were fully booked. When I got back that night from Fort Augustus and went to his house for dinner as arranged, he admitted having had quite a job, but with the help of the rail transport chief - who could do with a load of logs anyhow - I was going to be all right. When he accompanied me to the train, about eleven, my sleeper was there. In fact I had a whole car to myself!

Although a keen and interested supporter of experimental work on the poorest land types James Fraser was not readily going to be rushed into the acquisition of land approaching that quality and when A H Gosling was his Chief after the war, Fraser set about ensuring that Gosling didn't become carried away in the wrong direction. In a special tour of the North, Fraser led him into every miserable, undrained, badly fenced plantation of Scots Pine he could think of. Finally with stage humility he said he would of course acquire and plant such land if ordered to do so - obviously without enthusiasm or hope of success. And he got away with it for a few years!

Long, long days we often had together away from Inverness and, like many other Forestry wives, Mrs Fraser must have become reconciled to badly delayed meals. Anyway, his invariable procedure on arriving late with me at the house door was to raise his forefinger in front of his mouth and, in a stage whisper say - "Wheesht!" It meant he must be prepared to face the music, and I must be sure to be circumspect under interrogation, as to our movements and excuses for the lateness of the hour! Yet the occasion never arose, there would be a warm welcome, a hot bath, a gorgeous fire and a meal that filled everyone with well-being.

The post-war recruits into Forestry and especially into Research Branch were not only much more mature but also of quite unusual quality. I have mentioned Michael Edwards who had been in Burma. John Zehetmayr, straight from Oxford and the Navy, had the fastest brain I have ever come across. He could catch on to an idea - even a faint suggestion of an idea, see its possibilities, work it up forthwith, and eventually push it through with thoroughness. He is now, of course, Chief

Officer, Wales. Also there was G G Stewart from the Artillery, a quiet, most precise worker. I remember watching him clean up his desk and every pen he had been using before going for lunch, and thinking this is essentially a careful back-room boy! How wrong can one be; he is now ahead of all his contemporaries - a Forestry Commissioner. Although they were centred at Alice Holt - the new Research Headquarters in Hampshire, I saw a good deal of Fred Hummel, the post-war Sample Plot Officer - now also a Commissioner, and John Matthews the Commission's first Geneticist - now Professor of Forestry at Aberdeen. Great men to work with, they were.

I remember a long day at Kielder with Hummel, searching uphill and downhill for suitable material for new sample plots. By late afternoon the endless, great black monotony of young spruce so got us down that we cheered ourselves by imagining the Chairman's horror if we were driven to join that violently anti-forestry body - the Friends of the Lakes Society.

With John Matthews much my most exciting trip was to Sweden along with our new Chief Research Officer Malcolm Lawrie, at the invitation of Bertil Lindquist the great Swedish Forest Geneticist. Lindquist was so frequently agin his government and so ardent a home-ruler for his State, Scania in the very south of Sweden, that I always thought of him as the Mark Anderson of his country, Anderson being a rabid Scottish Nationalist. Lindquist, who was Director of the Royal Botanic Garden in Gothenburg and its vicinity, included a visit to Jenson's Nursery where many of Lindquist's selected tree clones were being grown, then we set off for a Tree-breeding station in the centre of Sweden. The train was held up very late and it was after midnight, though still very clear and bright when we arrived and inspected the experimental plots of Poplars and other species. It was long after 1 am before we reached our host's house. With great ceremony tea was served (we heard later it was brewed in a tea-pot bought only that day, or strictly the day before) we were very ready for bed when dinner was announced - an enormous meal which Lindquist, Laurie and myself could hardly face: but John Matthews - no doubt with the honour of his profession and of his country very much in mind - ate heartily to the end. We were torn between wonder and revulsion; but he subsequently slept like a top.

Laurie and Matthews went on to Ekabo - the Swedish Government Tree-breeding Institute while Lindquist, who was 'persona non grata' there, took me to his country place where the woods, like Bertil himself, were packed with interest. Then I went on to join another old friend in Denmark. The flight down the Swedish west coast in a rosy sunset I shall never forget, nor the remarkable thunder-storm we suddenly entered near Copenhagen and landed amid. Nor shall I forget the

lightening reflecting on the rain-swept streets nor the brilliant lighting of Copenhagen and the right-hand driving and flashing indicators of Syrach Larsen's car as he drove me to his home. I remember just as clearly our conversation which for some reason turned suddenly upon the dangers of specialists in forestry. He expounded his view clearly: when one required a specialist's advice one should choose the top man from the top institute dealing with the subject, tell him exactly what is required, then when he comes with his report take it firmly in your left hand, shake him heartily with your right and tell him you will call on him again if ever the need arises! As he took his hands off the wheel to demonstrate I nearly leapt out: but the lesson remains - never add specialists to your own department if it is possible to do otherwise.

When war had broken out in '39 and so many officers of the Commission were immediately transferred to Timber Supply, I was given command of West Division, Forestry, on Gosling being moved from that post to supplant Murray as O C Forestry in the headquarters in Edinburgh. However, I still had to maintain post as Research Officer, Scotland, so I had two offices, one in Glasgow, one in Edinburgh. My recollections of West Division, of which I became very fond from '39 to '46, appear in the following chapter. The doubling of my duties placed much additional onus on my two outstanding assistants: James Farquhar in the East and Angus MacDonald in the North. They, with minimal support, did superb work and saw to it that none of the existing experiments and no new project suffered neglect of any sort, and both maintained first-class relations with the local forestry officers, and emerged at the end of hostilities with everything under control. In the expansion which followed both were sheet anchors ensuring sound bases for each new development. Angus, very quiet spoken, thoughtful and thorough remained king of experiments in the North in general, and of the Lon Mor in particular, until he retired a few years ago.

Jimmy Farquar we soon moved to a new, senior and central post as Head Forester, Research, centred on Kincardine-on-Forth, from which we employed his wide knowledge as inspector of works, although it was never given that title. I was particularly keen on and proud of this move, the primary reason being to ensure that sound basic technique was applied both in nursery and in planting experiments. These things were doubly important when expansion was throwing in new Officers with sound university but little practical experience, and bright young Foresters whose recent experience was mainly in the armed forces. The new centres were set up in Benmore in the West under J H Thompson; at Mabie in South Scotland under Murdo MacDonald; at Tulliallen in the centre (Wm MacDonald); at Newton Nursery in East (Duncan Campbell), and at Ardross in the North-east (J Bartlett). Experiments in North England, which I took over on

becoming Silviculturist North, were centred on Allerton in Yorkshire. That area, with the heathland experiments it concentrated upon, had long been under the careful and intensely studious care of John Weatherell. He not only followed closely and often it seems led, the researches of 'The Fundamentalists' a group of researchers from Imperial Forestry Institute including Rennie, Dimpleby, Murphy and Leyton, whose work and intense prolonged thought may have added much to the literature but not much else worthy of practical application.

In the North East of England I met often and enjoyed The Conservator, George Batters stationed on York. We had one night at Otterburn which he will not allow me to forget. The weather was perishing in and after we left Keilder for the hotel. Heating there was negligible and we went to bed in chilly bedrooms with not even a hot water bottle to be had. In the morning I came down cosy and refreshed to the mystified envy of the others; I had pushed the bedside lamp in its shade down under the blankets and kept it switched on all night! There is one other Commission worthy I have so far failed to mention - Alex MacKenzie. I met him first as a young worker at Achnashellach in Wester Ross, near which was his home. He struck me as being far above average when he was sent to help me assess experiments in 1925 or '26. Thereafter he went to the Forestry School and later on, and for the rest of his working life, he was on, and latterly in charge of, Sample Plots. There is one story about him of which I know he is proud. He appeared before one promotion board some ten to twenty years ago and when the question of possible posting to England was mentioned he showed his objection. On the board demanding his reasons for refusing possible promotion, he replied:-

"Better a servant in the house of the Lord than a ruler in Egypt."

Among this long recital of man-power it might erroneously be imagined that no woman entered the lives or thoughts of the Research Branch. Indeed most were sooner or later happily married. When I first came, for part of each year, to share an office in the Edinburgh headquarters I soon realised that there was one all-important lady, Miss Roberta Burnett the Draughts-woman in charge of maps and mapping, who from her top room mothered the entire office. Zoe Sinclair was the typist/secretary in the Research Branch room opposite, and soon she married her Research Officer - James Macdonald. Within a few years, when I had succeeded him I married my typist/secretary, she was Milly Morrison, and her successor in the office was one Dorothy Pickering. Two other excellent women followed; Janet Sticks who later came to Glasgow as my chief clerk, and Isobel Colquhoun who was a tower of strength in the Research Branch. Then for a short time we recruited a band of three or four women before the war ended and they travelled about bringing the assessments of experiments up to date.

In the end my own transfer was recorded by James Macdonald by the Director, Research and Education in his Introduction to the Report on Forest Research for the year ending March, 1952, as follows:-

“Mr J A B Macdonald, who, for many years has been in charge of silvicultural work in Scotland, has left the Research Branch on promotion to the rank of Conservator. Mr Macdonald's departure is a severe loss for he has an intimate knowledge of many sides of silviculture based on a long and varied experience in the field.”

In my time Research and Experiment had increased twenty-five times judging by financial records which show the gross cost in 1925, when I first joined Research to have been six thousand and four hundred pounds: when I left it had reached one hundred and sixty four thousand pounds. Of these figures salaries and expenses were some fifty per cent.

In the early 1980s, the first of a series of studies was conducted to investigate the relationship between the degree of social support and the psychological well-being of the elderly.

The first study was a cross-sectional study of 100 elderly individuals living in a nursing home. The study found that the degree of social support was significantly related to the degree of psychological well-being. The study also found that the degree of social support was significantly related to the degree of physical health.

The second study was a longitudinal study of 100 elderly individuals living in a nursing home. The study found that the degree of social support was significantly related to the degree of psychological well-being over time. The study also found that the degree of social support was significantly related to the degree of physical health over time.

Chapter VI

1939 - 1945

Glasgow, Interlude as Divisional Officer West

As mentioned, very early in the war I was instructed to take over West Division, Forestry in addition to my Research job: thus I had two offices to control for six years. In both, however, new works were reduced or discouraged to begin with, but gradually we went on to achieve a very considerable planting programme in the West. West Division extends from Irvine on the Ayrshire Coast across to the Forth to take in Kincardine and Alloa, it includes West Perthshire and the boundary line makes for Ballachulish and then down Loch Linnhe and the Firth of Lorne to the sea. Like all other Divisions, West had been split into a Timber Production and a Forestry side, and half of its best Officers, Foresters and men went to the new department.

My opposite number on timber Production was Dr MacQueen Cowan, transferred from Royal Botanic Garden, Edinburgh where he had been second to the Regius Keeper, Sir William Wright Smith. Cowan was a determined driver of a man, and, with the bit between his teeth was hard to stop. One weekend shortly after I took over, and while I was in the North on Research Branch business, he bullied my chief clerk in Glasgow into instructing our remaining Foresters to give up more workers to Timber Supply. I was home in Edinburgh on the Sunday when this news reached me, and forthwith sent off a sheaf of telegrams stating that no action was to be taken over the unauthorised communications from Glasgow. There was a second but more local attack laid on about a year later at Carradale in Kintyre, where I had been asked to meet Cowan and his chief - Sir James Calder at their sawmill. I was waiting when the car drew up and out jumped Sir James straight at me: "So you are the man who is holding up our effort are you?" he demanded. I replied: "Do you realise that Cowan is already working in eleven separate Woods here, and that he is most certainly not getting into another until he has finished at least most of what he has got?". Sir James turned upon poor Cowan like a turkey-cock, and I had little more trouble of that sort.

Although we had many a tussle, I used to enjoy a trip to a Forest or a night in a hotel with Cowan who was an outstandingly interesting conversationalist. Fishing

he loved and perhaps much of the bull-headed rush he was in with his work was with a view to reaching some choice River or Loch in time to cast a fly. Dr Steven told me after the war that he had warned Cowan not to try to better me in deals over timber; but Cowan persisted, and at our monthly meetings to agree prices of timber which had passed over from Commission woods to his side, he would always start off to badger me downwards with the unit price of the biggest size-classes. I learned to keep my eye on some of the lots which were smaller in size-class but far greater in total volume, and pleased to have done so well in the preliminary rounds Cowan would magnanimously agree that perhaps it was time I got a ha'penny or even a penny per cube more for this smaller sized stuff. By the end of the war he never realised that the Forestry side had, each month done not too badly. Years later when he retired from the Botanic Garden and became chief of the famous Poolewe Gardens for the Scottish National Trust he continued to do great work and became acknowledged as an international authority on Rhododendrons.

In several forests, and notably in Inverliever, the Forestry side, as I have hinted, carried out its own timber working and indeed had been so engaged for some years before the outbreak of war, under my old friend Jock Kennedy as Forester. Some years earlier O J Sangar had bought a large motor-boat, partly of his own design, for timber transport on the Loch. At the launch of this vessel he had somehow overbalanced and plunged himself into the cold waters to the immediate horror, but subsequent enjoyment, of the assembled foresters on the Loch-side. The 'Coileach Coille' (Cock of the Woods) did great and long service both as regards timber transport and in the transport of workers and inspectors. Another of Sangar's purchases was a small Bristol Tractor with little caterpillar tracks. For this he caused to be built in steel a large, similarly tracked wagon for the timber, and he was there on the county roadway which runs through the forest, high above Loch Awe to see the tracked wagon delivered and to watch the first timber load being pulled downhill in fine style by the little tractor. He followed on foot to supervise the loading of the trailer's contents into the Coileach Coille; but tragedy struck when the return journey commenced up the steep slope and the tractor couldn't move the heavy, empty bogie. It remained, marooned there for years.

Clear-felling of some parts of the forest had been scheduled for the outbreak of war and had indeed begun before I arrived. I changed this wholesale slaughter to initiate some severance fellings instead. Later, on a visit by Robinson who had returned to the Forestry side, the severance fellings were stopped in favour of wide spread thinnings, and upon these the local squad was fully engaged throughout the war. All the thinnings from the Forest were rafted over the Loch to

a gravel bank near the county road where we had erected a special crosscutting sawmill, because pit props were in tremendous demand. The tree-length logs were dogged together on the Forest shore and towed over slowly by the Coileach Coille. As convenient, a horse dragged the logs up to the top of the gravel bank with ease, gravel being a wonderful substitute for ball-bearings, and from there they were released on to the roller-way which fed the saw bench. With great speed the required lengths were sawn off and laid on bogies of a light track way which facilitated attacking of the various sizes by the roadway.

There was a most exciting day when a Canadian Forestry Corps Colonel, their expert on timber extraction and conversion, came to suggest improvements in our system. He liked the layout of the novel crosscutting mill, but thought a more perfect site might be found. Up and down the Loch-side we followed him in respectful silence and at a respectful distance, wondering when this expert was going to bring forth some shattering suggestions which would prove what blind and simple amateurs we had been. Jock Maxwell-Macdonald, who had rejoined us temporarily, after having lost a leg in France, was with me and at least twice he held up a finger and whispered:- "He's about to lay now, I know it!". But in the end the Colonel led us back to our own site, and we were proud to find we had, in his estimation, made the best site-selection possible.

On the other side of the Loch if the water level was falling a D2 caterpillar tractor was employed by its driver, 'The Bohunk', to push the raft into floatable water before towing could begin. Once, however, the Bohunk pushed too far and in one terrorising moment the tractor tipped over the precipitous edge into deep water. Luckily the driver leapt out of his seat and shorewards in one almighty bound, and he made it. We had to employ the Crinan Canal divers to locate the tractor which they did in sixty feet of water. They then hitched on a wire hawser and it was winched up on shore. Years later when motoring towards Kintyre on holiday, I spotted a yellow tractor with a familiar figure in the driver's seat quite near the roadway in Asknish Forest. Going over (yes, it was the Bohunk) I said "This cannot be the D2 that you put in Loch Awe?" "the very same", he said "and as good as ever!" - the implied suggestion being that nothing was better for D2s than deep submersion. Being much frustrated by multiple breakdowns of tractors in South Conservancy at that time I asked if he would consider coming south and giving of his treatment to some of our machines!

Inverliever, being our oldest and therefore our largest timber working forest, would be visited by myself at least monthly during the war; and in Ford Hotel, adjoining Crown House which was from Office of Woods days the Forester's house and office, I spent many nights in summer and long ones in winter. It was

there that I often met an old portrait artist name Kenworthy. Watching him working upon water-colour drawings of the neighbourhood in the winter evenings gave me the urge to try sketching and painting. I remember Kenworthy claiming that he could only face Loch Awe in winter because the spring and summer greens in West Scotland were too vivid to be satisfactory, and thus his greens consisted largely of yellow ochre. On his advice I bought only four pans of best quality colours and avoided the pitfalls of an elaborate paint-box. Several pencil sketches which I made on the back of a file-cover while eating my lunch were worked up in the Kenworthy way at nights or during weekends at home in Edinburgh, and I soon appreciated the restful effect of painting on an over-busy mind.

About the middle of the war Robinson came to Inverliever with the Lord Chancellor, Lord Jowett, and I'm afraid I made trouble with Gosling by insisting that as Officer locally in charge, I ought to be included in the party who were to book in at Port Sonachan Hotel on the South side of the Loch. It did not improve relations with Gosling at all when it turned out that I would have to share his room! Robinson did not seem to resent my action - rather the reverse - but he did very reasonably warn me that future national forestry policy was to be discussed and that no whisper of what we said must get out. Jowett, who was accompanied by his wife, was a most picturesque character and wore an imposing long cloak. At dinner one night he began to talk about honours and suddenly suggested that 'Lord Macdonald of the Forests' sounded an excellent title. "Come on Macdonald what do you say, I'll see you get it for a hundred pounds!" - Gosling who was still a bit sore was not very amused.

Robinson, having been connected with Inverliever from its Office of Woods days in 1909 knew every corner particularly well and it was good to have him there. One of his last visits to West Division was to Glen Duror and by that time he was becoming pretty heavy; yet he decided to walk over the high pass into the plantations on the Ballachulish side above Loch Leven. The pace was slow and eventually I broke ahead and climbed to the top of Ben Dhearg before rejoining the party. Instead of being annoyed at me leaving him with the Forester, Lawrie Sinclair, Robinson was delighted and wave enthusiastically to me when I made the cairn. He was very human and did love a ploy and so he took part in at least one nocturnal and illegal splashing for sea-trout when visiting Knapdale where the Head Forester, Bill Ferguson and his assistant Duncan MacKay were particular experts at the game, besides being expert foresters.

It was at Knapdale that my suspicions of late autumn planting in Scotland were vindicated most dramatically. In one severe and very early winter every one of forty thousand November-planted Norway Spruce was killed outright, and with

this lesson in mind I opposed every attempt to increase the planting season at the end of the year when hard pressed foresters with enormous programmes in South Scotland in the fifties and sixties were anxious to make a start. As we proved then, better far to await a damp spell, even in July to complete the programme. Of course there are years when exceptions occur. In one very extreme and prolonged winter A N Simpson, the Tulliallan Nursery Forester could not sow his Sitka Spruce seed until June. By rights this ought to have resulted in prolific germination of desperately small seedlings with such a poor grip of the soil that they would be heaved out by frostlift in their first autumn or winter. This had been proved by six successive years of 'date of sowing' experiments, and yet Simpson - to whom no one could tell anything - produced the biggest and best seedlings of his career from those June sown seeds! The reason probably lay in the sterilising effect of the long period of exceptionally low soil temperatures, but to Simpson I was afraid that here was the perfect excuse for being late with his sowings. By the way this worthy who hailed from Dundee did not sow seed - he 'soo' it using the 'old Scots' past tense.

The main seed-kiln for Scotland was at Tulliallan in those years, and I made a record journey from the Glasgow office one day when we got a 'phone message to the effect that the kiln was on fire. It was out when I arrived. No doubt the cause was the accumulated resinous dust of years. In the following winter I was snowed up at Tyndrum over part of a week; so was a heating and ventilating engineer with whom I became very friendly. He was interested to hear about the kiln and a week or two later came to inspect it and gave much useful advice. He insisted particularly upon top ventilation to let the damp, hot air escape - something we had never thought about.

Tom Edwardson, an Edinburgh Forestry graduate ex the Sierre Leone service joined me as District Officer for part of the Division at this time and was a great asset. He got the most tremendous fun from Simpson's antics and collected his remarkable expressions. Tom had been invalided with spleen trouble from the Colonial Service where he had actually acted as interpreter to De Gaulle at the Dakar meetings. Luckily he was perfectly fit and strong in our temperate climate, and once in one of the Forests when Robinson hesitated to wade a considerable stream, Edwardson stooped down and carried the fifteen stone Chairman over on his shoulders. For some reason, Gosling very obviously never took to Edwardson and this undoubtedly lost us, to Oxford University, one of the most promising Officers.

The other District Officers in West during these years were John James - a contemporary of Gosling at Edinburgh University - who had learned much by

working in the squad for a year or more before being selected for promotion - and Hugh Dier ex Oxford and a District in South-east England. James who got the Aberfoyle District had, according to Gosling been pretty severely bullied by Sangar and was nervous and unsure of himself when Gosling had taken over the Division a year or two previously. So I was asked to go easy on John James and did so. He came on well, but I often thought that a junior command in the local Home Guard did more to give him confidence than anything else, except getting married about this time to his excellent wife Lucy.

Dier was another kettle of fish. Clever and loquacious and with plenty of fun in him; indeed a better developed sense of humour than of steady application. Not unnaturally he got on well with his Foresters. I remember when dictating a solemn rebuking letter to him observing to my typist Mrs Kathleen Stewart, a young war widow, that this was not easy as no one else on the staff was more frustrating and at the same time more likeable. I rather sat up when she replied "Don't I know it!". She married him a couple of years later.

I must record one of Hugh Dier's brightest efforts. Inverary, within his District, became a top centre for Commando and amphibious training, and was overflowing with troops who used the Loch-sides, miles around for their exercises. We had managed to have two very vulnerable young plantations rated as 'out of bounds'. There was a row in the early hours of one morning when Davie Ross, the Forester, found an army field headquarters half established in an empty house within one of the prescribed areas, and single handed turned them out. Davie was a terrific man with hands like two hams. But trouble broke out anew and Dier went to see the Officer in Charge at Inverary. And in a burst of super brightness he stated his business, feigned fellow feeling and claimed that he knew from experience just how difficult it was to get modern men to stick to an order. Never again was a soldier on duty found in these woods.

Harry Watson, besides being Instructor in charge of the Forestry School at Benmore, acted as District Officer for the Cowal area of Argyllshire. Harry was truly a dour Scot, not given to enthuse about many things - or people, but he and his attractive little wife made me very welcome. As she hailed from Gourock and had connections among sea-faring men, Harry, when he met me at Dunoon Pier, was always primed with the latest tragedy of the submarine attack. In fact it was often quite a thought to go to Benmore in the darkest days, although the trip down from Glasgow and the sail over from Craigendoran or Gourack past the Queens or other great liners, so often at the Tail of the Bank, presented a great sight. But once the worst of the news had been retold Harry brightened up considerably and would really enjoy a trip to a Forest or a visit to a Nursery. He was a top rank

forester and silviculturist and a good teacher, but his scathing comments on superiors, or colleagues who annoyed him in any way, were never suppressed. He thoroughly enjoyed taking a poor view of life!

Farthest north in the Division were Duror and Barcaldine Forests, each under a delightful Forester. I have mentioned Lawrie Sinclair, another of the Edinburgh Botanic Garden trained men and a credit to that school. Although very worthy of promotion and transfer, he had married a local lass and there he preferred to stay for a lifetime of fine service, which resulted in very creditable afforestation of not only Duror's long glen, but a mass of forest on the Ballachulish side of the hill. Hugh Cameron and his nice wife, a Lochawe-side woman, I had first met in my earliest Research Branch years, when he had charge of Inverliever Forest in succession to John Boyd, the famous Office of Woods Forester who later went to Corrour Estate. I have always felt that Hugh was blamed unreasonably for what later became recognised as shockingly bad initial planting methods and species selection carried out by his predecessors Boyd and, without doubt, Robinson. These techniques produced checked, miserable growth on the higher and less well drained land where blanket bog held sway. Certainly by 1930 progressive foresters knew well how to deal with it, and by 1950 it would have grown fine woods - after ploughing.

At Strathyre Forest, behind Ben Ledi in West Perth, the first Forester was Alistair Cameron, son of the famous Simon Cameron of Corrour, but he was one of the many transferred to Timber Supply at the outset of the war, so I did not have much to do with him. His Forest was taken over by Hugh MacKinnon a native of the Isle of Eigg and a product of the Benmore Forestry School. Hugh was a bachelor and that may have had something to do with the esteem he earned from a fine body of Forestry Girls we recruited and wished upon him early in the war. He also had a group of Conscientious Objectors housed in a new wooden holding on the other side of the valley, while the girls occupied two new holdings at Cregan, just north of the village. As the war progressed larger and larger planting programmes were attempted and carried out to the letter, and somehow Hugh MacKinnon's easy highland tempo never appeared stressed. I remember being delighted to find that his Conscientious Objectors were just as loyal to him as were the Forestry Corps women, and insisted on taking a heavy share of such extra duties as weekend fire patrol. Technically too, although preceded by an acknowledged expert, in my own view the war-time afforestation at Strathyre was undoubtedly of a higher standard.

So near Glasgow that it could be seen from the roof-top of the office was the little Forest of Lennox poised on a ridge of particularly tough, unyielding, boulder-till.

Immediately west of the Forest were in war-time hundreds of acres of anti-air-attack decoy ready to be switched on to lure or at least muddle enemy bombers. Tom Penny was the Foreman in charge of Lennox and after a night of bombing in the area I went to see him and to hear about the bad night he and Mrs Penny had come through. Much of the damage in the Forest would have been by incendiaries but luckily everything was very wet after rain. To see how flaming magnesium devices had fallen right down through a damp Sitka Spruce tree and only scorched a passage as they fell was surprising. Practically no damage from the incendiaries resulted, and only relatively few High Explosive bombs burst in the plantations. We were walking down a ride and Penny was telling me he was sure he had heard a heavy bomb fall in that region but had been unable to come upon it - it didn't seem to have exploded - when suddenly, a few feet ahead there was a jagged hole and I said to Penny, who had been looking to one side - "There's your bomb, Penny!". After such a bad night it was little wonder that Tom Penny jumped two feet in the air!

The Accountant in charge of the Glasgow Office was a keen, rather scared little Englishman named Hyem who tumbled over himself to be helpful to everyone. He had a hard working staff of typists and clerks, mainly girls, but he was invariably late in compiling the monthly account and eventually - after repeated demands - sending it off to Headquarters. Near the end of the war one month's accounts completely disappeared and was found by Hyem himself weeks later down behind a radiator! We got more help after that. All the war, if I travelled to Glasgow by train for the day it was often nine o'clock or after before I got home in the blackout. When going into Forests in the West I took my car and a huge mileage was built up in what was luckily to begin with, a new Vauxhall (AST 446). Incidentally it was sold after the war and one hundred and fifty thousand miles for as much as it had cost originally. Twice I was caught on the outskirts of Glasgow exceeding the speed limit, and the hard bit was that the second time I could not tell the Police that they had let me off on the previous occasion! Another time I was stopped for crossing the lights too late. When the Constable saw my driving licence he suggested that I called at the Police Station and ask for the Inspector which I did. He was a MacDonald and interested in my job, and I never heard any more about the offence.

With the Research side still absorbing part of my time, usually Mondays and at least Saturday mornings, I was so busy that I can now remember little about the war; although train-travelling gave me time for newspapers and books, reading was sore on the eyes in the blackout. Seeing pencil-marked lines of battle-fronts in my old atlas the other day brought back to me how concerned we actually were. I handed West Division over to Andrew Watt in 1946.

Chapter VII

Dumfries, as Conservator South Scotland

1951 - 1965

At 11 am one October forenoon in 1951, James Macdonald, Director of Research rang me from Headquarters in London and asked "Would you consider accepting promotion to South Conservancy?". I had no conception that such a move was possible, but I answered "Yes!". I was to succeed Jim Thom who was to become Deputy to the Chief in Edinburgh. Now, South Conservancy was well known to Research Branch men, who visited four conservancies north and two south of the Border, as a particularly happy one; that was why I took not a moment to consider making the move. I had been in the Research Branch twenty six years.

James Fraser was not slow to realise the traumatic effect upon me which severance with the Peat Experiments after a quarter of a century's contact must involve, and forthwith ordered Dugie Graham Campbell, then one of his staff and an eminent piper, to compose a dirge in my honour:- 'Macdonald's Farewell to the Lon Mor'. This duly arrived in manuscript form and I got Jock Maxwell-Macdonald to play it over the 'phone to James Fraser in Inverness. It is said, by authorities, to be very good.

I was just over fifty, had amassed a great deal of knowledge and here was a heaven sent opportunity to put the beliefs gained by experimental experience into large scale practice. No Conservancy had greater scope for territorial expansion upon the blanket-bog conditions we had worked on so thoroughly. The fact that my area would be reduced to one sixth of what it had been had tremendous advantages. Travelling time was cut and I soon found it unnecessary to be from home unless for an occasional night. Dumfries is a splendid centre and we took over the Thom's farmhouse - Gledenholt - nine miles out in the country near Forest of Ae. Its lounge looked out over the farmlands northwards to the planted slopes which so often seemed to be sunlit. I soon got to know the Forest at the door in detail, and it was an advantage to get to know the foresters and workers on and off duty, which the facilities of the Men's Club and other organisations made possible.

Our family, brought up so far in an Edinburgh suburb, revelled in the country life, and the elder pair got holiday jobs in the Forest, gained in stature and I suspect learned more than mere forestry techniques. Jimmy Reid, the somewhat taciturn Head Forester, when approached by our younger daughter who was envious of her elders, enquired her age, and on discovering how little it was said "Come back to me in nine years!" The neighbouring farm 'Burnside' had a manager with the broadest of Ayrshire accents. When I complimented him one day on the farm's obvious general fertility he claimed:- "When a cam here, ye'll no believe me but you could ha' whippit a louse fra yin end tae tither an' ne'er lost sicht o't!"

South Scotland Conservancy includes everything north of the Border to a line across the country, from the Forth near Linlithgow in the East to Irvine in Ayrshire on the Clyde estuary. Excepting Dalbeattie, Newcastleton and Glentress (near Peebles) it has few Forests dating from the Commission's inception, but it had built up to include some forty units. Even the most distant Forest can be reached in under two hours from Dumfries. District Offices in my time were at Moffat, Girvan in the west, Newton Stewart, Dalry in Kircudbright, Selkirk, Peebles and Longniddrie in the east. To begin with there was a senior Divisional Officer in charge of Commission Forestry and another Officer in command of Private Estate Forestry schemes. Later on I had, with the Director's blessing put R E Fossey in charge of Supply of every sort from seed and plants to tractors; R R Donald in command of all afforestation, and W N Gibson in charge of all thinnings and timber production; all three were graded Assistant Conservators. This purely functional division was unpopular with men previously used to being king of everything in their half of the Conservancy, but had great advantages.

Fossey's name has cropped up in these memoirs since 1929. There was the short interlude when he was a colleague in the Research Branch which, curiously for a man with a burning penchant for detail and accuracy, he could not get out of soon enough. Apparently then he had an overwhelming urge to get into the top ranks of the main service. Some time later he became Divisional Officer for North East England in war-time where he did some good work. His lieutenant at that time was Willie Forsythe, who not only observed but studied Fossey's niggling obsession for detail. On suitable occasions Willie would lay on a Fossey-and-company-arriving-at-a-Forest-Workers-Holding-act which always brought down the house. It opened with the collie dog which greeted the party and Fossey's penetrating questions about it, and with relentless speed delved deeper and deeper into its history, its behaviour, its contacts, switched rapidly on to the cats it dispersed, the rats they chased, and the mice it managed to catch, and that was by no means the end of Fossey's cross-questioning - only the beginning! When

he retired his long interest and participation in the Dumfries Players bloomed, and provided much local joy.

Bob MacDonald was one of James Fraser's many fine foresters produced in the first years of the Beaufort Forest School. He served in several Scottish forests and then became Harry Watson's assistant at the new School at Benmore. That Watson/Donald combination was a superb one and many fine men they turned out. After a spell on war-time Timber Supply he became Forestry Commission District Officer around Newton Stewart and then was promoted to Dumfries as Divisional Officer and subsequently Assistant Conservator. His knowledge was very comprehensive and complete; moreover he was a great favourite. It was Norman Brown, a District Officer who had once served under him who starred at Bob MacDonald's farewell by giving a dramatic representation of how Bob cross-questioned an offender in some line of technique and the roof-lifting final "Eh?!!" which inevitably terminated the investigation.

I have mentioned Irish Gibson once or twice. He was a product of Queens University in his native Belfast and took his Forestry degree in Aberdeen. From there he came via North Division and the influence of James Fraser and Frank Oliver to a spell on Land Acquisition, where he learned much as a wide-ranging lieutenant to, and disciple of, Harry Beresford Pierse. In South Scotland after that period he rose to be Assistant Conservator, and I can very truly claim that the happy spirit which enlivened the lives and works of those previously lucky to have Irish on their staff descended fully upon me.

Jim Thom had indeed left a very happy band of District Officers, Foresters and office staff with whom it was a pleasure to work. Their response to the greatly increased programmes I had to arrange was not only pleasant, it was enthusiastic. Within ten years our annual addition-of newly planted forest rose from four thousand to ten thousand acres, and in these years the number of forest-workers employed which was over one thousand and two hundred when I took over, fell to eight hundred and fifty, and there were no sackings, only normal wastage and determination to make do with less. During my fifteen years we, more than once, had the lowest figure for forest formation cost, and once the lowest price for timber production; and we never had our claim to have the happiest conservancy seriously challenged. The first time we planted ten thousand acres in a season happened to be when the Highland Show was in Dumfries; it was in June and I had to suffer just a little bit of leg-pulling because our figure stood at nine thousand six hundred and fifty acres. So I told Lord Radnor our Chairman - rather to his horror - we would soon put that right, and within a few weeks we

had done so very creditably. That particular July was, like many others in Scotland humid and devoid of drought, so plants lifted with care and planted forthwith suffered not at all.

In all this, credit must of course be given to increasing mechanisation - more tractors and better ploughs and better transport; also to more roads and therefore easier access. But Foresters and Officers began to take definite pride in doing a first class job with fewer men, so the traditional and misplaced pride in having the largest number on the payroll began to be seen through. Methods everywhere, from nursery to forest-production, quickly improved; and this was only partly because I knew from Research experience that the new ideas were good and would work well. It was much more because a fine staff made first class use of quite superb costings from Dumfries office and quickly took action wherever it appeared worth trying.

For these costings Bill Elliot and later Alex Cowan were responsible and both being good, sound and very human men gained the support, instead of suffering the suspicions of the Foresters in the field. Another and very potent reason for South being healthy and happy was our unique Personnel Officer Jimmy Laidlaw. It would not be stretching it to claim that he knew and had the complete confidence not only of every man and woman on the staff or retired therefrom, but also of every Union Official and - even more difficult - of every shop-steward. His knowledge of 'Estacode' was complete and yet this civil servant's bible was applied with wisdom and sense. His records were complete and true and so was his unusual memory. Both were at the service of anyone in need, and on occasions he was consulted by, or himself 'phoned to correct, the London chiefs in his controlling department. A native of Gatehouse, he loved to talk the dialect and to romance about farms and cattle prices, and when he came to my room on business this was disposed of briskly and succinctly, but then he was inclined to wander off on to farms and folks and local history far beyond my ken, until I lost the drift and he would drift off! He died very suddenly not long after he retired.

A number of farmers were still inclined to be anti-forestry when I came to the South and not long after I arrived a complaint came in from one National Farmers Union county secretary. It was about a letter sent out from my office which I found on examination was just too smart and snooty. The writer was at first difficult to convince that a smart answer to a provocative letter, although somewhat satisfying, was no stepping stone to good relations and that it is really nobler to resist the chance to score. However, to his credit I never again had cause to remonstrate. He sent the Secretary an adequate apology, and I followed it up

with an offer to meet his committee. After a somewhat difficult start, one farmer with an international reputation as a breeder, broke the ice by coming down heavily on my side because a Larch plantation he had was paying better than any field on the farm.

Our relations with the farmers improved steadily and one of the turning points was an excursion to Forest of Ae which a number of well known farmers joined. I think what impressed them most was the almost complete absence of failures encountered in a whole morning's walk over two miles of planted hillside. Some years later we did some good, well thought out division of newly acquired land between farm and forestry using large blocks or wide bands of forest as shelter woods for large paddocks of superior grazing, the whole structure being served by the forestry road system. The best of the paddocks - which might be of forty acres - were used as lambing fields with very considerable improvement in lambing percentage over these on the open hills. It was out of these exercises that the old shepherd-held myth concerning the inviolability of the hefting system, which demands free, daily movement of the flock from bottom to top of the whole hill came to be exploded, and James Gourlay, a Dumfriesshire farmer was the pioneer.

With all but one of the Department of Agriculture Lands Officers our working relations were excellent despite the fact that they could, and did at times report adversely on a proposed forestry acquisition as being in their view, in whole or part too good to pass for forestry; but both sides learned much from these exchanges. With honest men on each side one soon learned to appreciate the others point of view. When I began in Dumfries our forestry Advisory Committee for South Scotland held few farmer members, no doubt in the typical, timid Civil Service belief that it was safer to keep clear of trouble. I took delight in changing this by gradually putting up names that were far from yes-men until we had a very lively body in which farmers were powerfully represented. The outcome was far from a drop in the stock of forestry; rather the reverse as critical farmers got to know and see what we were doing and realised that much of it was good.

Personalities who made life full of interest in my South Conservancy days were numerous. Starting at the top, I remember well Lord Radnor's first visit as Chairman of the Commission; we were going from one item in the Forest to another when he suddenly stopped in his tracks and asked if I had any idea of the outstanding quality of our under managers - the foresters? He had never, in any other organisation come across their like. Gosling was Director General part of the time and then Beresford Peirse, the former rather dull and boorish so far as I was concerned, the latter anything but that. A second, well loved Director, Scotland, was Archie Ross and he was succeeded by John Dickson who had been

Conservator, North and who turned out to be, in my opinion, one of the best. If one had a sensible suggestion it got his quiet consideration and silent, but nevertheless complete backing. If it was not, one was left in no doubt. His predecessor, Andrew Watt was so nervous when he had called a meeting of his conservators that he talked all the time, I imagine in case anyone might raise an awkward matter of any sort. I was always fond of H A Turner the Secretary who seemed to me to have a real love of Forestry and of the Commission. I was very sad when, after my time, he was pushed off and followed by an unfortunate series of less adequate successors.

It is possible only to skim over the Districts and their Forests and to mention only a name or an item of significance here and there. Mabie, then a forest under its own name, is only a couple of miles west of Dumfries and was a convenient place to spend an odd hour from the office. It has very lovely wooded hills and I had known it for years because Research Branch had one of their Seed Orchards in the old walled garden there. During one College vacation Flora, our younger daughter, the one who had been nine years too young when we lived near Ae, got employment there and one of her women worker companions was known as the 'Strangler' and was a tough stickler for worker's rights. When the Forester ordered them out to work one wettish morning 'Strangler' was all for bringing the matter before her Union which she claimed was 'The British Assoc'ation'.

Forest of Ae, nine miles north of the Conservancy Office was begun in 1927. There were four thousand acres of plantation when I came to Dumfries and almost thirteen thousand when I retired. My old friend Jimmy Reid was Head Forester followed by Bobbie Jamieson and I saw a lot of it and them. Much of the work which Morley Penistan and I did in working out a new form of thinning, to which he gave the name Eclectic, was done at Ae. The Forest had some excellent men and a new and growing Forest Village with a lively Men's Club to which were enticed some very prominent speakers such as Francis Fraser Darling. There were two outstanding neighbours Arthur, (now Sir Arthur) Duncan farmer, County Councillor and for a time the excellent Chairman of our Advisory Committee, and Willie Clark, and his son Murray, makers of the fast developing Forestry Plough at Parkgate. Although he wrote the most beautiful hand in accounts and letters, Willie had no drawing-office and there was a crisis when a chalk drawing of some novel feature being developed disappeared when someone drove away a lorry, on the back-door of which the drawing had been made.

At Moffat still further north there was a double District Officer where Bill Sutherland, Jim Stirling and later Stanley Robertson and Mike Long held sway. Greskine Forest was nearby, under one of our best Foresters - Jock Hunter. There was on the

other side of the town a Moffat Water unit which stretched towards Selkirk, and some ten or eleven miles north-west was Watermeeting Forest under Bob Swan who was later employed as our expert on ploughing and plough development. The tenant of the farmhouse and best hirsell was an Orcadian woman of very difficult nature. Once she agreed I should bring Arthur Wannop the Director of Hill Farming Research to meet her and discuss our problems, but she was rude to him on her doorstep so he shut up like a clam and told me the minute we left that there was only one treatment for that woman, and that it was up to me to have it administered! Other Forests in Dumfriesshire were smaller ones like Dalmacallum near Moniave in the west and Brownmoor and Auchenrodden in the east, with farther that way the great Castle O'er Forest on Eskdale muir.

West of Dumfriesshire is the county with the highest proportion of State Forest - Kircudbright. In the south east is Dalbeattie with both a District Office and a Forest. Bill Ferguson was stationed there before being transferred to Girvan and the great Forester was Jimmy Watson, not much more than five feet of him but he knew every inch of one of the oldest forests in the Commission. Also in the District was the little Forest of Garcrogo on rather poor ground. I never think of it without the thunderstorm which caused the old Forester to rush out with two pails of water from his house on seeing from the window a young Sitka spruce set alight by a thunderbolt not yards from his garden fence. He told me he didn't reach it, on realising it was simply lashing rain!

Glengap was another small Forest in that region, for a time under a man Murray, and beyond it the lovely Forest of Lauriston, which for so long was under the capable command of Sydney Lloyd. Quite near as the crow flies, but in another District is Fleet Nursery and Forest which many well known Foresters, including R R Donald had controlled. It reached its zenith and became - I used to claim - the best and certainly the cleanest nursery in Britain, after Willie Hugh MacKay had been in charge for a few years. He mastered the new weed-control methods which were revolutionary and by so doing reduced the squad dramatically. During his tenure of Fleet the forestry side was extended to let him plant half of a great new addition to Cairn Edward Forest newly acquired from Mrs Murray-Usher. There was an agreement with her that when we had pushed our new road through to a narrow pass leading to Loch Grennoch, where she had retained a Lodge, she would in person open the final approach with Champagne. She was contacted by post in New Zealand, flew home and opening the road dispensed Champagne in large plastic mugs. After the celebration, she now claims, I drove her at breakneck speed over miles and miles of other new forest roads in the rapidly extending Forest amid some thousands of acres of split new plantation. There is

no exaggeration however in my recollection of the break in the lady's voice when she hoped that surely now her ancestors must admit she had done something worth while with her inheritance.

The District Office for much of the central Kirkcudbright area was at Dalry where latterly Graham Jeffries and before him John McGarva was in control. Before that Dugie Graham-Campbell had promised so well but he transferred and unfortunately died young. All three had to do with Cairn Edward Forest where a great and most enthusiastic Head Forester Charles Parley delighted each one of them and kept them on their toes! The Forest dated from the earliest twenties and in addition to the very fertile and now wooded slopes rising from Loch Ken to the summit of Cairn Edward, it stretched on less fertile ground over to the River Dee, on to the Water of Fleet, up the Dee to Clateringshaws Reservoir until in all it encompassed some twenty eight thousand acres of young forest. Near the south end is a lovely little sheet of water - Loch Strone - and on the south side of it there is a modest memorial to Charlie from which the view, mainly of that one man's effort, is superb among forested landscapes.

West of Cairn Edward is another famous forest and Nursery - Kirroughtree, so long the domain of Hugh MacMillan who had, for a time, a huge labour force largely employed in weeding. Farther north was the younger and much larger Forest of Glen Trool with something over fifty thousand acres. There the Forester was Alex McRae who had an unenviable time in the first years living more or less alone on the edge of a great tract of highly inflammable young plantation, until Glen Trool village was built and occupied. John MacNab was District Officer for forests in this region and in Wigtownshire. He was a truly great man both as regards accomplishments and physical stature, although when released, badly starved from the Japs at the end of the war he weighed only six and a half stones. It was wonderful to see him resplendent in his kilt at the Robert the Bruce Memorial Stone, telling a visiting excursion group how Bruce ambushed and routed an English Army on the slopes they were facing on the other side of Loch Trool.

Not far through the hills to the North-east is the Garraries Forest which I well remember visiting alone on a simply glorious winter day before it was acquired. The upper slopes were splendid and the sheep there very wild, in fact they ran from me much more excited than the deer I saw that day. It had been reported upon by an acquisition officer, who had been plagued by awful weather, and little wonder I pushed up his figure of the Plantable. This was not a common occurrence and on a rocky slope not far away I had slashed the estimate of plantable because there was mighty little soil over the rocks. At the northern end

of the county is Dundee Forest where, all my time, the stalwart Duncan Cameron extended his plantings into the hills beyond the Sheil of Castlemaddy. Anything he did was good and not surprisingly he had the lowest Beating Up figure in the Conservancy. Duncan was in politics far to the Right yet he was Union Representative and a tough fighter if his case was good. I can imagine he was scathing in his treatment of any hot-headed nonsense put up to him, for such never got past.

Wigtown had three units, all in John MacNab's District. There were Kilsture a little Forest given over largely to hardwoods, where Duncan McRae gave very detailed supervision, and Penninghame at the poorer North end of the county, and Bareagle - mainly a large Nursery at the head of Luce Bay. Ayrshire had Carrick, just over the watershed from Glen Trool and much of it on high land. For a long time it was under the careful eye of Murdo Chisholm who had been with me in the West until called up for service in the war as a Merchant Navy ship's cook - which he certainly did not look like. Other Ayrshire Forests were Arecleoch in the south and Changue, Kilgrammie and more recently Kyle towards our boundary with West Conservancy. Passing round the north into Lanarkshire is Watermeetings, already dealt with, and little Clydesdale not far from the county town.

There was only one tiny Forest in Midlothian, Selmuir which had a good, brave and not very fit Forester Jock Melville. East Lothian had two tiny units Saltoun and Stenton, and Berwick county had Duns in the east and Edgarhope in the west under Bill McGivern; these places had good enough soil but of course low rainfall. That covers all but Peeblesshire where Norman Brown was the excellent District Officer. An ex Battle of Britain Fighter Pilot he had been rendered nearly deaf and surprisingly cured long afterwards by a new operation technique. Norman is a fine officer and a star speaker. Glentress is the central forest and has had some notable foresters; across the Tweed is Cardrona Forest and Dreva lies west of the county town and Eddleston Water north of it, and at least part of Elibank and Traquair Forest is at the south of the county.

This has been a shocking dash around the Conservancy and I am sad to have named so few of the superb staff involved even if it was possible for me to name every unit. However, I believe these men would have been the first to insist that their Conservancy Office was always close and helpful.

Tom MacGeorge, a Doonhamer, and proud of it, was Chief Clerk when I arrived in the South, and I had his soothing, fatherly support for some years. No doubt he could have acted quickly and effectively if severely pushed, but such a crisis

seldom arose. My nature found the soft-peddalling trying, but possibly the treatment did me good. He was followed by Tom Farmer from the Glasgow office, a toiling worker with an inborn urge to run everything and everyone exactly according to the rules. I only blew up once when he sent our quite uniquely helpful and intelligent telephonist a rigid and utterly unnecessary set of instructions.

Then there was Alex Cowan from the Aberdeen office where he had no doubt benefited under the hand of the great Jack Lenman. Alex did me great service by taking on the secretaryship of the Society of Foresters after I had been Chairman for some time, but his health was not good at the time and he had to give that up. Dumfries Office had a fine set of dedicated clerical officers but of them all I must mention Miss Halliday, who summed up relations between the office and the Foresters beyond one Christmastide by exclaiming "Mr Macdonald - the Foresters - I love them all." The head Typist was Mary Lind, who had joined the staff in Jim Thom's time when she was only sixteen, and is still there doing and supervising first class work.

During my later years timber production, especially pitwood, chipwood for the new factory at Annan and pulpwood for Ellesmere Port was rapidly getting under way, and sales by tender and also by auction to the timber merchants expanded. It was a busy life, and there were often visitors. These included in my last years Tom Taylor, then a new Commissioner, and now as Lord Taylor of Gryfe their Chairman, and there was a prolonged visit from Lord Dalton who broke an ankle on a doorstep at Ae Village, he was laid up in Dumfries Station Hotel for over a week, and was full of interesting reminiscences. Finally George Ryle as Deputy Director General came with some Bowater Pulp and Paper men from Eastern Canada. They were intensely interested in our developing woods but even more so in the use we were making of peat-covered lands. They wanted someone to go over forthwith to see and report on treeless bog areas in Newfoundland and Nova Scotia, but George persuaded them that I would be free next year and that they could not do better than wait for me. So I had the great blessing of a job of work in mind when my time came to retire in the following autumn.

At my farewell dinner I quoted from one of many 'fan mail' letters:-

"You must feel enormous satisfaction at the happiness as well as efficiency of the staff who have served you so enthusiastically all your career."

But my quite unique experience was to receive their presentation from the hands of A D Hopkinson - the man who had taken me into the Commission forty three years, eight months and twenty seven days before.