

THE JUNIUS OF NOVA SCOTIA

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ON July 15, 1818, there appeared in *The Acadian Recorder*—that same *Recorder* which is still daily published in Halifax—a letter dealing with agriculture in Nova Scotia and signed “Agricola.” It was followed by sixty-two other letters, of which thirty-eight were collected in a volume and published in 1822 by Holland and Co., at that time proprietors of the paper in which they had originally appeared. Just one century later Messrs. Blackader and Co., the present proprietors of *The Recorder*, have issued a reprint of the series, and the moment seems opportune to recall attention to letters which inaugurated a real epoch in the agricultural development of Nova Scotia.

The subject-matter of these letters was mainly local in character; but their influence was so great, their literary merit so real, and the romance that centred around their author so unusual, that the present writer believes a brief account of Agricola and his work will be of interest even to those readers of the *Dalhousie Review* for whom cultural subjects take precedence of agricultural.

Agricola has been called “the Junius of Nova Scotia”, for during most of the time his letters were being published his identity was unknown even to the editor of *The Recorder*. Writing on this point, he says:

I did not put even my printer in possession of the secret, and no small difficulty lay in contriving a mode of communication with him by which I should avoid detection. That I effected by the intervention of a third party—Dr. William Petrie—who passed betwixt us under all the sanctions of the most inviolable secrecy.

Such, however, was the character of these letters that they at once caught the attention of the public, and so explicit and convincing were their recommendations that within five months of the appearance of the first letter public action was taken to adopt them. At the banquet of the North British Society on November 30th, 1818, four months after the letters began to appear, His Excellency, the Earl of Dalhousie—Founder of Dalhousie University—proposed

as a toast "The Health of Agricola, and success to his labours", explaining at the same time that the gentleman was quite unknown to him!

Two weeks later a public meeting was called in Halifax to organize the Provincial Agricultural Society,—a project which had been recommended in the letters. Lord Dalhousie was elected President, and on his advice Agricola—still unknown—was elected to the chief executive position as Secretary. The interim Secretary, appointed to hold office until Agricola should divulge his name, was Judge Haliburton, the famous author of *Sam Slick*. In a letter written some months later Agricola states that he had intended to remain for ever concealed, and had been quite unprepared for appointment to this position:—

It was the only circumstance in that day's occurrence which disconcerted me for a moment, for I heard all the encomiums passed in the course of the discussion with the most immovable indifference. But any tolerable judge of human nature might have discovered the unknown "Agricola" in the involuntary heat and flush of his countenance at this appointment. This event gave rise to a new train of ideas, and I began to hesitate whether this mystery in the writer might not prove treachery to the cause. I meditated deeply and frequently the policy of laying aside my personated character, and often resolved and re-resolved without coming to a satisfactory conclusion.

The first regular meeting of the newly organized Agricultural¹ Society was summoned for April 14, 1819. A few days before that date Agricola wrote to the Governor, the Earl of Dalhousie, subscribing his real name, and at the meeting this was publicly divulged. Agricola thus became the first Secretary of the Agricultural Board of the Province of Nova Scotia. Anyone who contemplates writing under a pseudonym will thoroughly enjoy the letter dated April 14, 1819, in which Agricola describes some of the schemes devised to find out his identity.

"Agricola" proved to be John Young, a Scotsman, born at Falkirk, Stirlingshire, in 1773. After receiving a liberal education at Glasgow University, he entered into the merchandizing business of his father. He came to Halifax in 1814, the last year of the Napoleonic wars, and took up business in that city. Four years later he commenced the publication of his letters, and in 1819 purchased a property at Willow Park where he proceeded to put into practice much of what he had written. He was twice elected to the House of Assembly, and died in Halifax in 1837. Joseph Howe, describing his career in the Legislature, says "He was not as brilliant in speech as in his written work. None the less, he always had a

thorough grip of his subject, and was a hard man to meet in debate." It cannot be said that Agricola's practical farming operations at Willow Park were successful, and we need not wonder. For it has often been shown that farming in eastern Canada is not a profitable business unless the proprietor is actually engaged in the operations himself, without having his attention diverted into other channels.

The theme of the *Letters* was peculiarly appropriate at the time when they appeared, and is no less so now. In 1814 Nova Scotia had been plunged, from a period of extraordinary prosperity during the Napoleonic wars, into one of extreme depression, and all branches of business were paralyzed. Agricola proposed agricultural development as the one way out. Now, a century later, the cycle of history has placed the same Province—and indeed the whole world—in a like position. It seems the echo of the voice of a century ago to hear from a statesman at Ottawa "Canada must pay off her National Debt out of the first six inches of her soil". Agricola's message, however, was not a mere voice. He analyzed the situation, pointed out the existing defects, and offered specific remedies.

Commencing with a vivid description of the despair and lethargy of the time, he protests against the constant drain on the resources of the Province in sending out specie to buy American produce which, in his judgment, might easily be grown at home. But he is confronted by a prevalent idea that the climate of Nova Scotia is so rigorous as to permit the growth of little else than grass and the like hardy crops. This he vigorously combats, declaring that every crop grown in his native Scotland could and should be grown in Nova Scotia. He quotes instances of the successful cultivation of such variety of produce which he had observed on his visits to different parts of the Province. As letter succeeds letter, he finds his ideas on this point strongly criticized, and he consequently re-iterates them with an emphasis which one can now hardly understand, because experience has so largely put his contentions beyond dispute. This is just the old story of the prophet in advance of his time, questioned by some, but listened to by others, leaving the world a legacy, and a name greater in death than in life.

Agricola had "the vision" in broad, bold outline. The detail had yet to be filled in. One wonders whether, as he argued the adaptability of the Province to a versatile agriculture, he would not have been himself astounded if he could have foreseen apples from Nova Scotia winning premier honours at the Imperial Fruit Show in London in November 1922, against competition from the other fruit-growing Provinces of Canada and from Great Britain itself!

His views on the fundamental cause of the depressed farming are clearly explained in these passages from his first two letters:—

The great defect under which our agriculture labours is the want of general and scientific principles among the practical farmers. There is a total ignorance of the very first rudiments of the science, and by many I shall even be derided for applying this denomination to Agriculture. There is little or no sentiment among that body of men, and the absence of Agricultural Societies is a decisive proof of the low and degraded state which the profession occupies. The first grand step towards internal improvement must be the establishment of such Societies in every county and in most of the townships, which should hold stated meetings for the discussion of all matters of common interest, and for the adjudging and distribution of prizes on subjects which have been previously announced and published in the newspapers. These institutions would dignify rural affairs, would excite a principle of emulation, would draw attention to useful discoveries, and would gradually introduce a more effective and enlightened mode of practice.

To unify the work of these local associations he advises the further organizing of a central Society in Halifax "to which they must all look up as the prime director of their movement". "It should be composed of men who have a warm interest in the improvements of the country, and are public-spirited enough to bestow their services gratuitously in furthering such a patriotic undertaking."

One has to read only a few pages of the letters to appreciate Agricola's culture and scholarship. Moreover, his business training is shown in the explicitness of his recommendations. The use of such language as "total ignorance", "low and degraded state", reveals however a certain lack of diplomacy, a certain arrogance which may well have prevented him from exercising as much influence as he might have had if his temperament had been less aristocratic. The conditions may have fully merited what he said of them. But we are not surprised if he roused resentment, in some quarters. In fact numerous correspondents, notably one writing under the pseudonym "Acadiensis", bitterly opposed his opinions in the columns of another newspaper. And yet one realizes how distinctly successful he was from the fact that the founding of the central Provincial Society so soon after his first letter was followed within less than a year by the organization of twenty-five Branch Societies in various parts of Nova Scotia. It is true that two Agricultural Societies—one at Windsor and the other in King's County—had been previously established, the former thirty years before Agricola began to write. But it remained for him to promote such enterprises on a systematic basis,

so that their influence might be extended to every part of the Province. It is a remarkable tribute to the enduring quality of his constructive work that these Societies have ever since his time constituted an important part of Nova Scotia's agricultural programme, and that they have gradually increased until they now number two hundred and forty-one.

Agricola next proceeded to use these organizations for improving agricultural methods. He aimed at importing better implements, better seeds, better live stock, and at instituting Exhibitions to stimulate greater interest in agriculture. In all this work he was helped by such leading men as Lord Dalhousie, Judge Haliburton, The Hon. T. N. Jeffrey, S. G. W. Archibald, and others—men, as he said, "of liberal views, who being raised above the petty calculations of sordid interest, magnanimously offered on the altar of public utility the devotion of their hearts and the inspiring influence of their example".

The situation was urgent, the necessity great, and Agricola merits the highest praise for creating in so short a time the machinery needful for carrying out his own excellent ideas. He so impressed the country that a general rejuvenation of its agricultural life ensued, and that improved methods were introduced everywhere. Here was a notable instance of the power of the pen in inspiring and advancing a great cause. For we cannot read the history of the early nineteenth century in Nova Scotia without seeing in Agricola a leader of one of the greatest movements of the time. But it was his letters, rather than himself, that achieved the results.

The student of scientific agriculture will readily discern that this pioneer's knowledge of the subject was based upon Sir Humphry Davy's *Elements of Agricultural Chemistry* and the *General Chemistry* of Lavoisier. From the former he quotes frequently. His own contribution was to take the somewhat abstruse scientific writings of these authors, and to couch them in language both beautiful and effective which could be at once followed by the general reader. From the point of view of scientists to-day his information appears, naturally, incomplete. But, none the less, his advice about cultivation of the soil, rotation of crops, about preservation of manure, the use of lime, and many other matters was enough to form a basis for a great deal in modern agricultural work. There is immense interest in contrasting such knowledge as it was then and as it is now. The reader will admire in the *Letters* what may be called the "working" knowledge of a century ago. But at the same time he will be struck by the vast addition made to the resources of agriculture through a hundred

years of chemical and biological research, allied with mechanical inventiveness. He will wonder, too, as he observes how near Agricola came to some modern discoveries,—almost within his grasp, yet just eluding him. And such a reader may pleasantly let his imagination run a century ahead, fancying discoveries still to be made to minister to the necessities and luxuries of our race.

Agricola's classification of manures, and his account of their qualities, must be considered as fundamental to the scientific part of his theory. He divides manures thus:

(1) All animal and vegetable decomposing matter which, he tells us, is the principal source of plant food.

(2) Mineral or fossil substances, constituting by far the greater portion of earthy matter which—according to him—act mainly as a domicile for plant roots and as a medium to contain the active plant food. Here are his own picturesque words:—

The putrescent manures, to borrow a familiar image, are the actual dishes served up at the table of the vegetable kingdom. By them all the various tribes are sustained, the majestic oak as well as the lowly shrub, the poisonous weed as well as the medicinal herb, the corns, the grasses, the esculent roots,—all feed on the rotting remains of animal and vegetable bodies; whereas the fossil manures, on the other hand, are merely the cooks, servants, waiters, and assistants at the table.

His description of putrescent manures might almost be used by a writer of the present day, although it is characteristic to include with a scientific statement such a philosophic observation as the following:—

I know no indication of greater skill in the Divine Intelligence, or a more indubitable mark of His care and goodness, than this contrivance of resolving all dead animal and vegetable matter into elementary principles, that—in the first place—He might relieve the earth of such loathsome incumbrances, and—in the next place—be supplied with fresh materials out of which to form and sustain the new and successive family of plants.

The modern science of Bacteriology, which explains in a large measure this decomposition of organic matter and its practical use for agricultural processes, was not at Agricola's command. But his rules for turning and controlling the process to the advantage of agriculture would afford a tolerably good guide to the best modern practice.

It is in regard to the fossil manures that his knowledge is so obviously defective to anyone who has even an elementary acquaintance with the discoveries of the later nineteenth century. Agricola divides these manures into clay, sand, lime, and magnesia.

He knew little, as we now know, about the elements of plant food that can be obtained from this source,—little about phosphoric acid, potash, iron, sodium, and the rest. The whole science of modern commercial fertilizer, that has done so much for farm production in all the older countries of the world, is almost entirely omitted from his treatise. And he failed to distinguish with any clearness between the physical and the chemical constituents of the soil.

In respect to just one substance classified as a fossil manure can his observation be fully applied to present-day practice. Agricola writes well about lime, strongly recommending its more extensive use. Perhaps his letter, No. 27, treating of lime is the finest in his whole series. He introduces the subject in real literary fashion—as so many of the old writers did—by describing a visit to the grave of Robert Burns. While reflecting on the life of the bard, Agricola is interrupted by a venerable old man who joins him in a tribute to “Our Poet”. But gradually the conversation drifts to the state of the surrounding countryside, which the old man declares to be very much improved—mainly through the use of lime—from what it had been in the days of his youth. “Lime”, he says, “I look upon as the best friend we ever had”. Agricola continues:—

He paused: I looked in his face, and a glow of animation had overspread the paleness of age. His right hand was extended in an impressive posture, and his left rested on his staff. The pencil of Titian could not have done him justice. I rose and bowed; we came down together, and I retired to my apartment in the Inn to note down the particulars of this interesting conversation.

Here the business traits of Agricola appear, for—after writing of the localities in Nova Scotia where abundance of lime may be found—he influences the newly organized Agricultural Societies to offer prizes for the discovery and working of other limestone areas. As a result, for many years after, lime was largely used for enriching the soils of the Province.

The principles underlying its action were not, however, fully understood a hundred years ago, and subsequent history tells of its excessive use to the detriment of many fields. Since then scientific research has come to the rescue, and it is now known that—while lime should be used over large areas of Nova Scotia—it should be recognized as a stimulant which must find its substance to stimulate in the vegetable matter of the soil, and so should be applied with judgment. Agricola knew the chemical composition of lime, carbonate of lime. But the relative value of other combinations of it was almost entirely unknown. “The phosphate of

lime," he writes, "which is another combination of calcareous earth with an acid, is of much less importance regarded as a manure than the carbonate and sulphate." But he adds that it is the principal constituent of the bones of all animals, and these, he says, have proved of value as a soil improver. Indeed he almost grasps the most important practical discovery of the latter half of the nineteenth century in respect to the use of phosphate rock when he writes that "it is fair to infer from the analogy of natural operations" that this substance would have a beneficial effect and would serve the same end as the phosphate of bone dust. It remained, however, for scientists of a later date to discover the elements of plant food and their relative importance, and to lay the foundation for the science of commercial fertilizers.

Apart from their theme, the *Letters* are worth reading for their literary merit alone. They are couched in lucid, easy, flowing language. The narrative is always moving. Agricola, in the very spirit of his time, paid careful attention to the setting of even his most scientific ideas. His work is thus more voluminous than a modern scientific treatise, but its appeal is all the wider. The most trivial matters are elevated into a lofty philosophic atmosphere. The *Letters* not only inform, but inspire. Agricola's glowing tribute to the basic industry of the world, a peroration in the last of the series, may serve as a fitting conclusion for the first article on an agricultural topic to appear in the pages of this *Review*:

The cultivation of land is the only stable and permanent employment of capital. All else is perishable and liable to the vicissitudes of fortune. Where are the galleys which fought at Salamis? Where the merchandize of Tyre? Where the costly perfumes of Arabia? Where the riches and pride of Carthage? Worn by the corrosion of time, or consumed by the hand of the destroyer. The states of Asia Minor, the Republics of Greece, the Provinces of the Roman Empire, the Roman Empire itself, have left no relics of their wealth, their magnificence and unrivalled prosperity save the soil which they cultivated and improved. I shall not except from this general devastation the existing ruins of a few cities which are entirely useless to the present generation, and which serve only as memorials to teach us how fading and transient is all human glory. The capital, however, laid out on the soil is beyond the reach of fortune and benefits alike the present and future ages. When all other efforts of our industry in this Province have yielded to time—our ships, our wooden buildings, the frail apparatus of our fisheries and the products of our mines—the land reclaimed from the forest will remain as the only unchangeable monument of our existence, and the capital there expended will have a duration coeval with that of the country. It will endure as the only permanent riches; and, to sum up all, it is the Alpha and the Omega of national grandeur and wealth.