

2
 North of Ireland imagine themselves Masons & indicate
 much dexterity in building a wall so as to look well
 placing the stones on their edges, putting lead full of spinnings
 as they call them, to fill up the interval between the
 large stones which render the wall weak & prevent
 it from being substantial -

On the top of this wall of five feet I place two ledges the
 whole breadth of the wall about six inches high & upon
 these a broad flag which projects six or eight inches
 before the rest of the wall - & upon this flag a led to keep
 it from being disturbed - This projection a flag or coping
 is of great use - A wall of this kind will look something



like this drawing & will prevent any plantation
 from all cattle except goats or brown-tinted sheep
 shared by a dog -

In a country where the demand for labour is not
 great the men are eager to undertake more than they
 can possibly execute in a given time - The writer is the
 period of the year & seldom give me more than
 Ten Men if he is to complete all the work. & this is
 as much as his leisure will permit him to finish
 before the end of April with ^{the} ordinary interruptions of
 the weather - If a man has a horse he may be
 entrusted with 30 or 40 bushels, if 40 & one in a
 partnership or one man has a horse, the work is distributed
 accordingly - but it is not proper to admit of more than
 four in a partnership, some times they disagree.

‘A Short Dissertation on Planting’ for Lady Louisa Conolly

JOHN WALKER (1763-1830)

IN 1809 LADY LOUISA CONOLLY OF CASTLETOWN HOUSE, COUNTY KILDARE, WROTE TO the London lawyer and Bencher of the Middle Temple, Mr John Walker,¹ to ask for advice on improving 4,000 acres of county Donegal. He responded by sending her a letter, dated 20th February 1809, and a thirteen-page handwritten ‘short dissertation on planting’.² These documents, together with a later letter of Walker’s dated 1st April 1809, a letter from Messrs Dicksons, the seedsmen, whom Walker consulted on Lady Louisa’s behalf, but with her identity as potential client concealed, are bound together with a recipe for making salt from sea water as MS 15397 in the Conolly Manuscripts in the National Library of Ireland.³ As such manuscript sources are rarely considered worthy of edited publication in traditional historical published sources, it is intended on occasion to publish material considered significant for the architectural, landscaping and decorative arts cultures of Ireland in this journal. Walker’s ‘short dissertation on planting’ and its accompanying letter are transcribed here from the manuscript and have not been published before. The absence of full stops and the erratic use of capital letters throughout the dissertation have been corrected to modern usage for ease of reading. The dissertation contains two small illustrations, one of a pick and the other a cross-section of a stone wall (Plate 1).

Louisa Conolly turned to John Walker, who probably also managed other Conolly affairs in London, to provide impartial advice on the subject of tree-planting. Although it is somewhat surprising that she did not ask a specialist, such as an arborist or a natural historian, it seems likely that professionals’ advice was considered suspect, as they were frequently involved in profiting from the tree-planting business themselves. John Walker was a gentleman who had evidently planted many trees himself at his own seat of Stydd Hall, Derbyshire. In the culture of the period, this was impartial and valuable expertise.⁴ He was also acquainted with other gentlemen engaged in tree-planting, and knew of the

1 – John Walker, ‘A Short Dissertation on Planting’, page 2
(National Library of Ireland, Conolly and Napier MSS, MS15397)

activities of the great lairds of Scotland, then very much engaged in planting thousands of acres in the Highlands. The magnates he referred to in the dissertation included the great improvers Dr Richard Watson, Bishop of Landaff, and James Duff, 2nd Earl Fife.

In the 1807-10 period, the Castletown estate was in flux, with Castletown House itself under consideration by the government for use as a potential barracks.⁵ Escaping from the 'Business of poor Castletown',⁶ as she referred to it, Louisa removed to Ballyshannon, county Donegal in 1809, together with her ward, Emily Napier, for some therapeutic sea-bathing. She may also have pursued the matter of tree-planting.

The 'short dissertation on planting' that Walker wrote for Louisa gives some insight into the culture and practice of tree-planting in the first decade of the nineteenth century, when a surviving manuscript culture promoted the circulation of such private and unpublished material, whose impact as a consequence is hard to measure. The professionalisation of most disciplines over the course of the nineteenth century, and the attendant rise of the estate agent, makes it a late example of the 'amateur' treatise. Some of the expertise that Walker does proffer – how to lay out the line of a stone wall, for example – is consistent, however, with legal expertise in conveyancing. The letters and the dissertation also reveal the ongoing reach of the Conolly estate in those parts of Ireland where they held the most land – namely, Derry and Donegal. They also shed light on Louisa's identity as an improver of consistent energy and vision during her long residence in Castletown House, the centre to these wider satellite schemes for the improvement of Ireland's landscape and, by extension, the welfare of its people. Both letters and dissertation are written in the fine legible hand of an anonymous legal clerk.

— FO'K

MR JOHN WALKER TO LADY LOUISA CONOLLY

Mr. Walker presents his respectful compl[imen]ts to Lady Louisa Conolly and has sent her a short dissertation on planting which he hopes will convey almost all the information she may wish for upon the subject. He also begs leave to assure her that he shall be delighted not merely to give her information but as he is well acquainted with the various nursery men & their prices &c. he begs she will do him the honor to command him in respect of any purchases of trees &c. if she should find the smallest difficulty in obtaining the plants at a reasonable price.

Mr. Walker will be in Donnegal early in the spring and will with great pleasure set out the line of a stone wall or give any other directions or assistance in his power.

The extreme scarcity of timber in this country, the increased consumption all over the world, the exhausted state of the forests in Poland & those parts contiguous to the Baltic render planting an affair of absolute duty to those who have the means of doing it by being possessed of unoccupied and not productive lands, to contribute their share to the common stock.

He is well assured that Lord Melville's plan when he was first lord of the Admiralty

(a situation to which it is suffered he will soon return) was to put in requisition all the timber in the parks of the nobility & c. for the purpose of ship building.

As a matter of profit Mr. W. knows no means of laying out money by which such an accumulation can be made or with so much certainty. The Bishop of Landaff, who has planted a good deal in Cumberland I think estimates the produce of 1000 acres seventy or eighty years hence at about £1,200,000. Notwithstanding this has been recommended by almost innumerable writers for above a century very few persons have thought of futurity or of their posterity. All however have not been equally indifferent. Lord Fife it is said has planted 14 or 15,000 acres in Scotland & as some proof of his success the inclosed paper containing an account of their growth was sent a few years since to the society of Arts & Sciences when they voted the Gold Medal to him as a mark of distinction.

M., ---[?] the father of the late Lord Gage planted a very large wood even under the presence of difficulties with respect to money & this is left in the family as a sacred deposit not to be touch[e]d until a certain year excepting for the purposes of salutary thinning. The product it is supposed will then be immense. The Marquis of Lichfield in Nottinghamshire plants every year when acorns are abundant 70 or 80 acres after a crop of Turneps. Lord Bagots woods in Staffordshire are supposed to be worth about £500,000.

Mr. Walker hopes Lady Louisa Conolly will pardon his not having sooner answered her letter as he has by accident been much engaged. He does not wonder at Lady Louisa's mind being occupied with plans & schemes where she has so large a portion of territory as 4000 acres to work upon. The expense will be considerable but there is scarcely any term which if properly attended to they will produce sixty years hence. He also hopes Lady Louisa Conolly will not bethink the minutiae of this detail tiresome as he was really anxious that she should be aware of all the difficulties she would have to contend with .

20 Feby 1809, 24 Argyll Street

A SHORT DISSERTATION ON PLANTING

The expence of building a stone wall must depend upon the facility with which materials can be obtained & the price of labour. A wall five feet high, two feet six inches wide at the bottom & about two feet at top may be built for various sums from 5/5 to 11/4.5 a perch of seven yards, where the price of labour is five shillings a day. I have given these and all the intermediate prices. Many precautions are necessary to be attended to by those who superintend the workmen. A space should be dug out for the base of the wall. No water should stand under any part of the foundation on account of the frost. If the foundation stones are laid upon the grass, the ---[?] rots[?], the wall sinks irregularly, the stones are disturbed, & the storms in time will throw down the Wall.

In setting out the wall by contract, it is necessary to be careful not to give too large a portion to any particular person or party, but to distribute it according to the ability of the

expective[?] persons who are employ'd. I have frequently engag'd different persons to quarry the stones, to carry them to the place, & to build the wall. Where the stones are easily quarried, I have given two shillings a perch, where it was necessary to use gunpowder 4/4, & this was not quite sufficient. The price of carriage has varied from 1/6 to 3/3 & even 4/4 a perch.

If the materials are good a perch of wall may be built in a day but not otherwise. All the men in the North of Ireland imagine themselves masons and indicate much dexterity in building a wall so as to look well placing the stones on their edges, putting handfuls of firmings as they call them, to fill up the intervals between the large stones which render the wall weak & prevent it from being substantial.

On the top of this wall of five feet place two sods the whole breadth of the wall about six inches high & upon these a broad flag which projects six or eight inches before the rest of the wall & upon this flag a sod to keep it from being disturbed. This projecting flag or coping is of great use. A wall of this kind will look something like this drawing & will protect any plantation from all cattle except goats or mountain sheep chased by a dog.

In a country where the demand for labour is not great the men are eager to undertake more than they can possibly execute in a given time. The winter is the period of leisure & I seldom give one man more than ten perches if he is to compleat all the work & this is as much as his leisure will permit him to finish before the end of it, [I?] find[?] with the ordinary interruptions of the weather. If a man has 3 or 4 sons he may be entrusted with 30 or 40 perches. if 4 or 5 are in a partnership or one man has a horse, the work is distributed accordingly but it is not proper to admit of more than four in a partnership, sometimes they quarrel & if the work is not properly done they lay the fault upon one another alternately & most particularly if the work is not done in proper time.

In a flat country a wall may be taken in any direction but in a mountainous one, the direction of the wall must be well considered, first to prevent the foundation from being upon a declivity, where it would not be safe, where it might be affected by a torrent, or where it might be commanded on the[?] of its sides so as to prevent it from being a good fence on both. And above all care must be taken that the largest possible space may be inclosed at the least expence & that the materials may be easily obtained.

A stone wall I am persuaded is the only fence that can be depended upon, it would require ten years to raise a whitethorn fence, & where the sheep are numerous even that time could not be sufficient. But when the wall is built & the trees planted still it is absolutely necessary to appoint some person to guard the plantation. Trees are usually planted upon a sort of rocky pasture & when small instead of obstructing cattle they create a temptaion to brouse upon & destroy them. I give a man a house & three or four acres of land with mountain grazing for ten head of cattle to take care of my plantations & he will know[sic] how merciless I should be if any serious mischief was done.

In addition to these precautions I intend to plant a whitethorn fence in the inside of the stone wall & carefully to remove any prominent portions of earth from the outside that may assist the cattle in their attempts to leap over it.

The men must be supplied with certain tools which is not very expensive as they are not easily destroyed & as they are accountable for them. A party of four men will require

Two crow bars	One large & one small
Two Sledges	One large & one small
Four widges	One pick. Shovels & spades they find themselves.

Also they should have two or three well made frames of wood to guide the workmen as to the form of the wall & to extend their lines upon.

As it is intended to plant upon a large scale & as it is obvious that large works require a length of time & much good management I beg leave to recommend the adoption of the following plan. One year & probably two winters will elapse before any large inclosure can be properly fenced to receive the trees so that they can remain with security. In the mean time let three or four acres of rich good land in a sheltered place be inclosed with a good wall & let this be considered as the nursery to raise the young plants in. It is not worth while to raise the plants from seeds when they can be bought so cheap from the nursery men. Oak Ash Beech Elm Birch Alder Scotch Fir Spruce Larch Silver Fir & Poplar which must ever be the principal timber may be obtained in a state fit for the nursery at 5s or 6s per thousand & often for much less when a large quantity is bought— & these will be from one to three years old— Silver Fir is worth about 20/.

Let some careful experienced person attend the planting of these out as the nursery-men plant them in rows about 16 inches distant from each other & let the plants in the rows be 4 or 5 Inches distant. Let them remain two years & not longer, they will then be fit for the large plantation. In Scotland there are men who make a trade of planting by the acre & upholding the plants for three years— that is supplying the places of those which die. I do not know their terms but for a large undertaking it would be by no means difficult to induce some of them to come over. Ever greens must not be transplanted till after the 10th of March nor later than the first of September. This transplanting when the men are got into the habit will be worth from 3d to 6d per thousand. Much care is required to prevent the roots from being doubled up & spoiled.

In plantations made for ornament there can be no doubt that the trees must be mixed that the beauty of the scenery may be improved by the variety of the foliage. Ld Macartney says the Chinese are eminently attentive not merely to the tints of the foliage but to the forms of their trees, we are exceedingly negligent in both respects. A dull monotony is usually prevalent which gives no relief to the eye & prevents that appearance of cheerfulness & gaiety which rural scenery ought to inspire.

In planting for profit I am well assured that when it is once ascertained what particular timber the soil is fit for that the same kinds of trees ought to be planted together & not intermixed. The trees will then grow nearly of the same height, & on that account will shelter one another. When trees are of unequal heights in a stormy climate the gusts of wind get into channels where they are concentrated & do much mischief by twisting the tender tops & young branches.

The climate & soil of Ireland are in general most favourable to the growth of timber.

Warmth & humidity are common to the whole country but the North is too stormy for trees to grow well, except in large masses. The soil of the North also is more cold & tenacious than what exists in other parts of the kingdom. In former times very large portions were covered with wood & tho' there is no doubt that almost all European trees will flourish, yet it is morally certain that the kinds which have formerly existed will grow there again, except some singular alteration has taken place to prevent their vegetation & I believe that in many places this has actually happened by the rapid increase of boggy vegetation which in the neighbourhood of many mountains covers good soil. Many persons of great consideration have been deterred from planting in the North from the impression that the violence of the wind cuts off the tops & destroys the trees. In stubborn & ungrateful soils the agitation of the trees by the wind is of the greatest importance as the soil about the roots is loosened & the fibres are enabled to make progress. I have always remarked that when the trees are planted in masses even in the most exposed situations that the effect of the wind is gradually diminished from the edge of the fence & that the trees rise in a gradual slope towards the mass— some trees bear the wind abundantly better than others— & therefore should be used as screens on the outsides. Black Sally is never affected by the wind— Sycamore, Ash and Spruce bear it very well.

In the North of Ireland we find the vestiges of Oak, Birch, Scotch Fir and Spruce. The Oak is now of no value and never seems to have been of large dimensions & was it not for the very great importance & value of the bark should never be planted in a northern climate without a great mixture of other sorts of trees. Birch can only be known to have existed from its bark which is almost as durable[?] as charcoal. Rufna[?] Leather is dressed with the Oil of Birch bark from which it derives its peculiar smell. The Red Fir found in the bogs is the Scotch Fir which tho' soft & white when young gets hard and red at the heart when old & is sometimes of very large dimensions & very fine. I have seen timber of nearly three feet in diameter— of this wood the White Fir is we are to judge from the roots is principally Spruce which in England seldom grows to any large size being principally used for scaffold & ladder poles, but in Ireland it grows to large size— possibly also some Silver Fir may have been mixed amongst the Spruce.

It is evident that the trees to be planted must be suited to the soil situation & climate. Oak grows well in a strong tenacious deep clay. Ash requires a more open soil but will thrive well when exposed to more wind and moisture than Oak can bear. All the Trees will grow in a poor sandy soil & require an elevated exposed situation, but Spruce & Scotch Fir will bear moisture better than any of the others.

Larch appears to be by far the most profitable wood to plant. Few trees grow so fast are so easy to raise or are so valuable as timber when grown. All the writers state that the branches of Larch burn with the solidity of old timber, but that old Larch burns with extreme difficulty— that it is more durable than Oak, which I believe is the case with most trees when the turpentine[?] has not been drawn from them which mixed with the woody fibre renders it almost imneiscible[?] with water. Oak has the advantage over them in its strength & bark but when exposed to water is certainly not so durable.

Larch has also the advantage over the Oak of coming to maturity in about sixty years whereas the Oak is scarcely in perfection in less than one hundred. Oak also requires a deep rich clay & will not in an equal degree bear exposure to the wind & the severity of the Climate & I think this is more evident in the North of Ireland than in any part of the world I have had an opportunity of remarking. All the Oak trees are small & are stunted in their growth.

Alder & Black Sally have the merit of growing in a wet bog & will not thrive without water. They are easily propagated by cuttings & Black Sally has that most valuable property of not suffering by the violence of the wind & not much by the spray of the sea. Elm requires a moist deep Loam. Beech a dry rocky soil. Sycamore has its merits but some of the Poplars in a rich soil are probably more profitable than any other trees as they grow faster than even Larch or Silver Fir. A good deal of consideration is necessary in the North of Ireland to adapt the different trees to the soil situation. In an extensive work trees of all kinds should be planted as it is of great importance to every country to be possessed of different kinds of timber.

If circumstances would admit of it I should beyond all question trench the soil two spades deep & if it could be done with a plough & some horses the operation would not be very expensive. The great secret of planting consists in putting the trees into the ground very small & in so preparing the soil that the tender fibres of the young shoots can make progress. A plantation properly prepared will I am certain be of more value in twelve years & than one not so prepared & taken care of in twenty or perhaps 40. No water should be permitted to stand on any part of the surface. If the land was rich I should plant the trees at the distance of two feet but as the quantity of plants would be most enormous to plant an acre probably a distance of three feet might be better adapted to the soil of the North & the extent of the plantation.

The tool I have found to succeed the best to plant with expedition, is what I call a planting axe & is nothing more than a common pick about 24 inches long with a sharp point at one end & a face like a hoe about 4.5 inches broad at the other. The holes for the trees & planting may be executed with this instrument for about 2/ p[er] 100 or perhaps 2/6. The turf or surface is cut away with the broad face the pick point loosens the stones & the earth is taken out by the broad face. A careful person should attend the planting. If the trees are to be planted at a distance of three feet the account will stand nearly thus

4840 square yards in an English acre will require 5000 plants at 5/ p[er] 1000 1:5:0

5000 holes at 2/6 per hundred & planting about 6:0:0

The preparation of the ground cannot well be calculated, if it can be done by horses it will cost 20 or 25 or perhaps £30 per acre. If the ground is rocky it must be prepared by the spade & it is not easy to say even when one sees it what it will cost. In Scotland they merely put the plants in the soil. In this estimate no allowance whatever is made for fencing which must depend much upon circumstances.

In the first twelve years an allowance of £100:0:0 per annum must be made for contingencies for instance £25 or £30 for the first year must be allowed for tools. £20 for a

horse for a superintendent. An allowance must also be made for the ----[?] & c with various other matters which will perpetually occur & the success of any undertaking of this kind will almost entirely depend upon the zeal & attention with which it is pursued.

I have bought this year 40,000 Larch at 5d/per 1000

Oak at	6/ Do
Scotch Fir at	3/ Do
Spruce I think is	7/6 Do
Alder	5/o Do
Birch	5/o Do

Young plantations should be looked over every spring for the first two or three years that the dead plants may be removed & their places supplied with fresh ones— some excellent plants ought always to be kept for that purpose.

In ten or twelve years a plantation of Larch will begin to be profitable. I think some of my larch planted 5 or 6 years ago have grown so well that in six years time the thinnings will be worth four or five shillings a tree & it is as necessary to thin the trees as to plant them. I am quite certain that whatever scale the plantations are begun upon if it is continued for twelve years that the thinnings alone will even afterwards pay all the future expences if continued at the same rate to the end of the world.

The monthly augmentation of the price of timber renders it impossible to calculate what would be the value of an acre of Larch of sixty years growth sixty years hence but we are quite certain that a good acre of Larch of sixty years growth would now be worth, three or four thousand pounds.

ENDNOTES

- ¹ *The Gentleman's Magazine*, vol. 148, 1830, 91. The periodical recorded the death 'aged 67' of 'John Walker, esq. late of Argyll-street, and of Stydd-hall, Derbyshire, a Bencher of the Middle Temple'.
- ² NLI, Conolly MSS, MS 15397, John Walker's letter of 20th February 1809 precedes the thirteen handwritten pages that make up the untitled dissertation, describing them as 'a short dissertation on planting'. This has been used here as a title.
- ³ A.P.W. Malcomson and Patrick Walsh (eds), *The Conolly Archive* (Dublin and Shannon, 2010) 255. Walker's dissertation is listed in an appendix of 'Miscellaneous Conolly Papers in various Locations'. No reference is made to the letters or the recipe.
- ⁴ The great Irish precedent for such gentlemen's expertise is that of Samuel Hayes of Avondale, county Wicklow, who published *A Practical Treatise on Planting and the Management of Woods and Coppices* in London in 1794.
- ⁵ Nottingham University Library, Marlay Manuscripts, Packet IV, no. 34, Lady Louisa Conolly to the Countess of Charleville, 28th January 1808
- ⁶ *ibid.*, 29th December 1807