The Sickle, the Scythe, and the Physical Characteristics of Migratory Harvest Workers

In recent years on several occasions Mr. E. J. T. Collins has directed attention to the contribution of 'a massive substitution of the scythe for the sickle' in the harvesting of wheat to the growth of labour productivity, and presumably of earnings, in English agriculture between 1790 and 1870. In the 1790s the wheat harvest was overwhelmingly shorn with the serrated-edged sickle or reaped with the smooth-edged sickle or hook, and the use of the scythe was largely restricted to the mowing of grass and a growing proportion of the oats and barley harvests. By the late 1860s, when the majority of the English grain harvest was still gathered with hand-tools, the sickle and the hook had been almost entirely abandoned in favour of the scythe. Over England generally, according to Collins, the 'majority adoption phase' of this 'hand tool revolution' came after 1835. But in Lincolnshire and the East Riding, two counties in which agricultural techniques were considerably improved from the later eighteenth century onwards, the scythe appears to have become the standard harvesting implement of resident labourers at least by 1830. And the survival of the sickle in these counties after 1830 was almost exclusively in the hands of the large number of migratory workers from Connacht, who visited certain regions to participate in the harvest. On the wolds, an upland district of light soils which was first extensively brought permanently under the plough from the latter part of the eighteenth century, and few Irish workers were employed in harvest, it could be said by the 1830s that: 'the scythe has taken the place of the sickle: all the wheat is mown'. In the same decade in the Holderness district of the East Riding, there was 'no doubt' that the employment of 'vast numbers of labourers... from the western coast of Ireland' caused 'a greater quantity of grain to be cut by the sickle than would otherwise be the case'. And the same applied to the Fens, and other lowland districts, where the harvest could not have been 'reaped without the Irish'.

At least at first sight, it appears somewhat surprising that the migratory harvest workers of Connacht did not abandon the sickle for the scythe until the second half of the nineteenth century, or decades after the latter implement was in common use by the resident labourers of the districts they visited. From the opening of the century the migratory labourers apparently possessed ample opportunity to become acquainted with the technique of mowing. And it might be supposed that the higher earnings in harvest realised by mowers would have stimulated the Irish reapers to adopt the scythe. In the 1830s it was considered that: 'Two


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good scythe-men, with their attendants, will mow, bind, and stook, upon an average, about three imperial acres of all corn crops within a working day of ten hours; which is something more than double the work which can be performed by the sickle⁴. And as harvest workers in Lincolnshire and the East Riding were paid by the acre rather than the day, the greater efficiency of mowing over reaping was reflected in earnings. Yet for decades the Connacht migratory workers continued to adhere to the sickle.

A number of hypotheses might be advanced to account for the retention of the sickle by the Irish migratory workers even though the use of that implement yielded harvest earnings, on which the peasant economy of large areas of Connacht was extremely dependent, that were considerably lower than those realised by mowing. It might be argued that conditions in the West of Ireland discouraged the adoption of the scythe as the local harvesting implement, and that therefore the migratory workers lacked the opportunity to become skilled in its use. The small plots and fields of Connacht, and especially the uneven and stony nature of much of the land, restricted the use of such a low-cutting implement as the scythe. The stagnation of the cereal acreage in the West after 1815, in conditions of increasing excess supply of labour, discouraged the farmers from adopting labour-saving implements like the scythe. The continued use of straw for thatching and plaiting in Ireland encouraged the retention of reaping, because reaped straw was preferred to mown by thatchers and plaiters⁵. However, while in fact such conditions did enforce the retention of the sickle in Ireland, they contribute little to the explanation of the Irish failure to adopt the scythe for use in the British harvest, as they were to do later in the century; for it is known that the migratory workers acquired skills specifically for the British labour market. To learn the art of singling turnips, for example, migratory workers often practised under the guidance of an experienced worker with rows of stones to represent a crop rarely grown in the West of Ireland. As Patrick Gallagher described the procedure in late nineteenth-century Donegal:

Hughdie spent a week training us to knock four stones off the top of a drill and leave the next in its bed without touching it. The day before we left for Scotland we were carefully examined by our fathers, Hughdie, and others. We satisfied the examiners, who told us it would be no shame for us to say that we could single turnips⁶.

If it was possible to go to such lengths to acquire a skill in which Irish migratory workers were only employed while waiting for the harvest to open, why then was it not possible for them to learn a skill, that of mowing, for the activity in which they were primarily engaged in Britain?

Perhaps the retention of the sickle by the Irish migratory workers was at the behest of their English employers. Given parochial responsibility for the relief of the settled poor in England, and the resulting preference in harvest employment

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⁴ British Husbandry, loc cit. II, 190.
⁶ Paddy the Cope [Patrick Gallagher], My Story (London, 1939).
given to settled workers over ‘outsiders’, the Irish reapers formed something akin to a ‘reserve army’ of harvest workers, (albeit one that accounted for a significant proportion of the total harvest labour force at least by the 1830s). They were therefore most likely to obtain employment on a large scale in situations and in seasons when excess demand for harvest labour existed; such as in localities where the crops were heavy in terms of straw yields or were ‘laid’, and in seasons when the crops were particularly heavy: conditions that militated against the use of the scythe. In Lincolnshire, in the Level of Andholme, where few resident labourers were available to harvest the ‘great quantity of oats’ grown on the rich soils, the farmers employed ‘Irish labourers to assist in cutting them, the crops [being] too heavy to mow; they have been obliged to shear them’. On the adjoining wold, on the other hand, Irish workers were rarely employed to harvest crops that were usually light in terms of straw yields and rarely ‘laid’. However, while such factors do help to explain the lowland farmers’ countenance of the retention of the sickle by the Irish, they cannot explain why the upland farmers, who frequently complained of a shortage of harvest labour, did not attempt to engage the Irish as mowers. Nor do they explain why the Irish did not attempt until late in the century to break into the high-wage preserve of the English mowers.

The most plausible explanation of the failure of the Connacht migratory workers to adopt the scythe during the first half of the nineteenth century would seem to stem from their inability to use that implement efficiently. In other words, the migratory workers lacked the physique and the physical strength to wield the scythe effectively and efficiently in harvesting grain crops. This is, of course, a contentious and perhaps a provocative line of argument to advance. But, hopefully, the value judgements which such considerations involved in the nineteenth century, and the motives which inspired them, might be eschewed today in order to permit the exposition of a hypothesis which does possess some explanatory power. In the 1830s and the 1840s numerous references were made to the ‘well known’ fact that the Irish migratory workers were unable to mow. And to a considerable extent, the long delay in their adoption of the scythe was connected with their inefficiency in its use.

II

It was generally agreed in the first half of the nineteenth century, when the techniques of mowing, shearing, and reaping cereal crops existed side by side, that mowing was the ‘much more severe’ form of harvest labour. For shearing or reaping with the sickle it was said not to ‘matter what kind of men and women are employed’. Whereas, in the opinion of at least one agricultural writer, mowing was ‘the hardest of all agricultural labour’, for which ‘strong and enduring men’ were required. In England, and especially in Lincolnshire and the East Riding

8. LRMS, 28 August 1840.
where the scythe was early adopted as the standard harvesting implement, the majority of the resident male harvest labour force possessed these requirements. The Lincolnshire labourers, in particular, were described as ‘a fine race, tall, well-made, and ruddy’\textsuperscript{10}. On the other hand, a number of commentators during the first half of the nineteenth century testified to the low stature and poor physique of the Connacht Irish who participated in the harvest migration to England. To a Liverpool witness before a committee investigating the state of the Irish poor in the 1830s: ‘The hay-makers and reapers are generally Connacht mountaineers, and are extremely small feeble men; they appear to be the remnant of the Celtic Irish\textsuperscript{11}. Earlier in the century Wakefield, a generally sympathetic and reliable observer of Ireland, believed that ‘the potato-eating people of Ireland are much weaker than the English’. And the greatest degree of dependence upon the potato for subsistence in Ireland existed amongst the poorer classes of Connacht. The relatively poor physique of the western Irish is perhaps indicated by the lightness of construction and reduced carrying-capacity of local farm implements in comparison with those in use in England. The Irish flail, according to Wakefield, was ‘seldom heavier than a schoolboy’s whip’, and the pitchfork in Ireland was ‘not so large as in England, and on account of the small space between the tines, is incapable of raising up many pounds of hay at a time’\textsuperscript{12}.

The comparative strength of English and Connacht labourers during the first half of the nineteenth century might be at least partially explained by the difference of their respective diets. The latter subsisted largely upon potatoes and water, and as the century progressed towards the Famine the supply of potatoes became less and less adequate in terms of quantity, and came to consist increasingly of the less nutritious varieties such as ‘lumpers’. The labourers of Lincolnshire and the East Riding, on the other hand, were believed to be better fed than those of any other region of the British Isles. During the formative years of adolescence and youth a large proportion of the agricultural working-class was lodged on the farms, where they were liberally supplied with food of good quality and accustomed to hard work and long hours as ploughboys. Thereafter, as day labourers, average weekly earnings that were considerably above the national average provided a basic diet of bread from seconds flour, and cheese, and they were said to ‘seldom miss a day without having meat’\textsuperscript{14}. Moreover, in order to ensure that a large proportion of income was devoted to food, many day labourers were fed on the farms. On one particular farm where this custom existed in the 1840s: ‘The breakfast consists of bread and milk, with some bacon; the dinner, of hot beef, mutton, and bacon, alternatively, with vegetables and bread and cheese;
the supper of bread and cheese'. In addition: 'They get for drink a pint of beer daily, and very good beer too, the same that the foreman drinks himself'.

It was commonly observed during the first half of the century that there was a marked contrast in the amount of work performed by the Connacht labourer in Connacht and in Britain. At home the labourers in employment were said to demonstrate a 'lack of spontaneous and dogged exertion'. On a visit to the West of Ireland in 1850 James Caird observed that: 'All the reapers had on... a long-tailed frieze-coat, and they certainly did not look as if their work could keep them warm without it'. Yet in Scotland according to the same writer, 'an Irishman strips to his work in harvest, and does it well'. And in Lincolnshire the Connacht migratory workers were considered to be 'the best of workmen, [who] labour from the first peep of day till dark', and got 'through an incredible quantity of work'. To some writers this transformation of the Connacht labourer out of Ireland in the amount of work he performed was attributable to the simultaneous change in his diet. Within Connacht the potato diet produced 'a contented indolence in the habits of the people', which changed when they adopted the superior diet of the labourers in Britain. To Trevelyon in the 1840s: 'One main cause of the fact which has been so often remarked, that the Irishman works better out of Ireland than in it, is, that when he leaves his native country and obtains regular employment elsewhere he commences at the same time a more strengthening diet'. The Lincolnshire evidence, sparse as it is, does suggest that during their residence in that county the Connacht migratory workers adopted the dietary of the resident labourers. During the harvest of 1829, when a Lincolnshire baker was 'met a short distance from home by two Irishmen, who knocked him down, and severely maltreated him', it was believed that the Irishmen had taken 'offence at the price he charged for his bread whilst they worked in the neighbourhood'. A party of Irish reapers who visited the Plough Inn at Branstree, near Lincoln, during the harvest of 1838, 'had some bacon cooked, and afterwards a quart of ale'.

The Connacht migratory workers certainly acquired a taste for British ale, which was dispensed liberally by the farmers during harvest to stimulate effort and satisfy thirst. At Lincoln in September 1839 the magistrates went so far as to issue 'a caution to publicans... forbidding them to furnish Irish reapers on Sundays with more drink than is sufficient for refreshment, so as to prevent [the repetition of] the scenes of intoxication and riot that have occurred on the last two Sabbaths'. The experience in England was in fact responsible for districts of Connacht, in which large numbers of migratory workers resided, becoming somewhat unique in Ireland for their adoption of ale as a beverage. As Synge was

17. J. Caird, The Plantation Scheme; or, the West of Ireland as a Field for Investment (Edinburgh, 1850) p. 6.
18. L HMS, 17 September 1841.
21. L HMS, 16 October 1829, 14 September 1838.
22. L HMS, 6 September 1839.
informed by an old man at Swinford in Mayo: ‘This is the only place in Ireland where you’ll see people drinking ale, for it is from this place that the greatest multitudes go harvesting in England, its the only way they can live — and they bring the taste for ale back along with them’\textsuperscript{28}. Similarly, ‘the consumption of tea, which they make into a kind of decoction, as indeed do the English peasantry, by boiling it for hours’, was a dietary addition introduced into the West of Ireland through the medium of the harvest migration\textsuperscript{24}. Nevertheless, it would seem that the adoption of parts of the dietary of British labourers in the West of Ireland did not take place until late in the nineteenth century, and then they were mostly the least nutritional parts of that dietary; and that the brief period of up to six months each year that the migratory workers spent on the British dietary would appear inadequate to explain the greater amount of labour performed in Britain in comparison to Ireland. More importantly, the migratory worker in Britain was stimulated to increased effort by piece-rates, or payment by the acre of corn harvested; whereas in Ireland, when work was available, he usually worked for day wages or for the payment for his conacre. The growing excess supply of labour over demand in Connacht, which was primarily responsible for the harvest migration, brought unemployment as the reward for effort; and the conacre system, involving the exchange of labour for the occupation of potato-land, may have so far divorced labour from its payment in the mind of the worker as to ensure that it would be inadequately performed. Moreover, in the peasant economy of the West of Ireland, the depressed condition and status of the small wage-labouring class created an aversion to working for others. As Kane observed in the 1830s: ‘Mere industry has been in Ireland, for many generations, connected with the idea of a vulgar and depressed class. The possession of land with perfect idleness constituted in itself the criterion of respectability’\textsuperscript{25}.

\textbf{Once removed from the local economy, and stimulated by piece-rates in Britain, the Connacht migratory workers were willing to work hard and consistently as far as they were able. But the purpose of such labour in the British harvest was to permit the migrant to realise his ideal ‘state of perfect idleness’ during the period of the year that he spent at home. As the old man of Swinford informed Synge: ‘You’ll see a power of them that come home at Michaelmas itself that will never do a hand’s turn the rest of the year; but they will be sitting in each other’s houses playing cards through the night, and a barrel of ale set up amongst them’\textsuperscript{28}. For such an objective the migratory worker was willing to work hard in Britain, assisted by a superior dietary during the summer months. But it is doubtful that this was sufficient to enable him to mow; for even more important than strength the capacity to mow efficiently was positively related to the height of the worker. Much of the margin of efficiency of the scythe over the sickle was

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\item J. M. Synge, \textit{In Wicklow, West Kerry and Connemara} (Dublin, 1911) pp. 228—229.
\item L. Paul-Dubois, \textit{Contemporary Ireland} (Dublin, 1911) p. 354.
\item R. Kane, \textit{The Industrial Resources of Ireland} (2nd edn. Dublin, 1845) p. 302.
\item Synge (see footnote 23), p. 229.
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attributable to the extent of the mower’s reach, with ‘the sweep of a good scythe-
man’ using a blade at least four feet in length being from seven to eight feet; ‘and
when the corn stands fair, his forward cut is 12 to 15 inches’27. The Connacht
harvest workers, however, were generally speaking ‘small men’ with a limited
reach. Nineteenth-century writers often commented on the contrast of stature
between the inhabitants of Connemara, who did not participate in the harvest
migration, and that of the inhabitants of other Connacht districts who did. To
Inglis in the 1830s the men of Connemara were ‘a magnificent race; the biggest,
stoutest, and tallest ... in Ireland’. To Coulter a generation later, they were ‘for
the most part tall, broad-shouldered, well-made fellows’. On the other hand,
Foster in the 1840s did not consider the ‘average-height’ of men in Mayo and
Leitrim, two counties that supplied the majority of Connacht migratory workers,
to have been more than five feet and five inches. And later in the century, ‘the
stature’ of the Celtic people of the West of Ireland, ‘without being low’, was
estimated at ‘nearer to middle height than is generally the case in any other
British country’28.

In relation to the relative average height of British and Connacht harvest
workers, it has to be borne in mind that the substitution of the scythe for the sickle in
Britain from the later eighteenth century generally involved a transfer of the owner-
ship of harvesting implements from the worker to the employer29. Whereas the
reaper was expected to provide his own sickle, a relatively inexpensive item,
stocks of scythes were maintained on the farms for distribution to workers during
harvest. And as the efficiency of the mower was very dependent upon the suita-
bility of the positions of the grips on the scythe-handle for his height, it is likely
that these were positioned to suit the stature of the majority of resident labourers
rather than the Connacht migratory workers. For reaping, on the other hand, the
smaller stature of the Connacht labourers was almost ideal, especially as the farm-
ers expressed a growing preference for reaping low. In reaping generally, ‘The
stance of the worker, crouched over the burning soil in the great heat of summer,
was a frequent cause of strokes, especially amongst middle-aged people’30. And
for the Irish reapers, in particular, the blades of their sickles were placed at such
an ‘acute angle with the handle’ that all but the smallest had to bend ‘almost
double’ to cut the corn near the base of the stalk. The Connacht migratory workers
were therefore assisted in reaping by the smallness of their stature, as well as by
the ‘superior strength of back’ of which they boasted31. As the Irish reaper retorted
to the farmer who declined to employ him on the ground that he was too small:

27. British Husbandry (see footnote 3), II, 188, 190.
28. H. D. Inglis, A Journey Throughout Ireland, during the spring, summer, and autumn of
Existing Condition, and Prospects (Dublin, 1862) p. 82; T. C. Foster, Letters on the Condition
of the People of Ireland (London, 1847) p. 46 n.; P. Daryl, Ireland’s Disease (London, 1888)
p. 64; Anon, The Irish Peasants: A Sociological Study (London, 1892) p. 105.
31. Wakefield (see footnote 12), I, 503.
‘Wisha, now, and do you cut your corn at the top’32. And where the reaper was forced to stoop to gather crops, perhaps the remark made by a Lincolnshire agriculturalist about the Connacht migratory workers, that ‘They did put their backs into it’, has to be taken quite literally33.

III

If the foregoing analysis is valid, and the physique and stature of the Connacht migratory workers was the primary obstacle to their adoption of the scythe during the first half of the nineteenth century, then their adoption of the scythe later in the century remains to be explained. Here, undoubtedly, a contribution was made by the improvement of living standards in Connacht after 1850, which was substantial even though they remained low in comparison with those of British workers. With the secular decline of population in the West after the Famine, those remaining possessed more and more land on which to secure an adequate supply of the basic potato crop. And although partial failures of the potato crop occurred after 1850, they no longer had the disastrous consequences of earlier failures. The addition of Indian corn, wheaten bread, American bacon, and even ale, to the dietary of the western population, provided for a far more regular and nutritious supply of foodstuffs than previously. The establishment of the poor law system, detested as it was by the peasantry, at least provided a mechanism for the distribution of relief during partial failures of the potato crop. And the impact of the Famine on British public opinion was such as to ensure an immediate and organized flow of charity to the West during periods of distress.

In addition to the raising of the poverty line in the West after 1850, a change occurred in the socio-economic status of the migratory workers which had the effect of reducing their poverty. Before the Famine the migratory workers were overwhelmingly occupiers of land in overcrowded Rundale villages, and agricultural labourers and conacre occupiers. In the 1830s, according to Inglis, from the lower parts of Connaught,— multitudes go in search of employment … By far the greater number … are married men; and in that part of Ireland from which the migration chiefly takes place, cabins have a bit of potato land attached to them, on the produce of which, or of a patch of conacre, the wife and children subsists in Mayo.

Between Westport and Castlebar in Mayo, Inglis observed:

The cottages by the way-side, were all of the poorest description; and the small patches of cultivation around them, and the absence of grazing land, shewed that these people might be classed among the poor of Mayo. I also noticed a good many cabins padlocked; and was told, that the owners had gone harvesting … in England.

Around Ballina Inglis noticed that there were 'many very small landholders located on the large farms, and these are in a miserable condition. I found a number of these individuals gone to the harvesting'\textsuperscript{34}. The Famine, however, brought about the virtual disappearance of Rundale and conacre, and the death or permanent emigration of many former Rundale and conacre occupiers. Between 1841 and 1871 the number of holdings in Connacht of less than five acres declined by over 75 per cent, from 100,250 to 22,550; those of five to 15 acres in extent remained approximately stationary in number; and holdings of over 15 acres increased more than five fold\textsuperscript{35}. Therefore, a new class of migratory workers was created after the Famine from amongst a peasantry generally occupying larger holdings than before, and from amongst the children of substantial peasants. By the turn of the present century, it could be said that:

About 80 per cent of these migratory labourers are the sons and relations of land holders, but not themselves land holders; the other 20 per cent are land holders. No less than 300 travelled from Connaught whose holdings averaged more than 20 acres\textsuperscript{36}.

With the Famine the primary function of the harvest migration changed from that of a source of funds to make up for the deficiency of domestic production for subsistence, to that of a source of capital to gain entry to a peasant-farming class and to stock peasant holdings. As James Tuke was informed in 1880: 'the men who have gone to England or elsewhere, put their earnings to buy sheep and cattle'\textsuperscript{37}.

While the improvement in living standards in the West of Ireland enhanced the physical capacity of the migratory workers for the 'severe labour' of mowing, advances in British agriculture were tending to reduce the severity of that labour and the field of employment for the sickle. In particular, the spread of under-draining and seed selection reduced the weight of crops of straw and therefore facilitated mowing on heavier soils. Moreover, the trend towards a growing emphasis upon livestock production at the expense of cereals in British agriculture after 1850 was partly achieved by laying down the heaviest lowland tillage soils to pasture, which reduced the extent of the necessity for reaping. As a consequence, the Irish migratory workers were increasingly forced to adopt the scythe; for which purpose stores and blacksmiths' forges in Connacht began to sell and to adapt scythes to the stature of the migratory workers. At Swinford Synge was surprised to find:

Over nearly every shop door ... two scythe-blades at right angles over the doorways, with the points and edges uppermost, and in the street below them there were numbers of ... scythe-handles, scythe-blades bound in straw rope, ... scythe-stones, and other things of the kind. In the smith's

\textsuperscript{34} Inglis (see footnote 28), II, 305, 106, 119.
\textsuperscript{35} J. Tuke, \textit{A Visit to Donegal and Connaught in the Spring of 1880} (London, 1880).
\textsuperscript{36} M. J. Bonn, \textit{Modern Ireland and her Agrarian Problem} (Dublin, 1906) p. 54.
\textsuperscript{37} Tuke (see footnote 35), p. 30.
forge at the end of the town ... a smith was fixing blades and hand-grips to the scythe-handles for a crowd of men who stood around him with the blades and handles, which they had bought elsewhere, ready in their hands.

And on the road from Belmullet to Ballina, he met 'many harvestmen with scythe-handles and little bundles tied in red handkerchiefs, walking quickly to Ballina to embark for Liverpool and Glasgow' 38.

38. Synge (see footnote 23), pp. 233—4, 204.
their mind became home only, and in every situation of life of which they had been reared and their ideas formed, only child of 25 acres. The other 25 acres was used for tillage. The third quarter was generally taken as a field, and the rest was generally left fallow. The fourth quarter was divided into two parts, each 12½ acres, one part being used for tillage, and the other for fallow. This system was approximately stationary in the south, and gradually became more and more improved as you went north. The system was then, to make from the produce of the land as much as possible, and to stock the land with cattle. As James Fane was informed by the farmers who have come to England or elsewhere, they raise animals on the grist of their land.

While the improvements in living standards in the West of Ireland increased the physical capacity of the migratory workers for the "waste lands", or uncultivated tracts in British agriculture were tending to reduce the number of such workers and the field of employment for the sick. In particular, the period of western drainage and soil conservation reduced the number of acres under cultivation and the amount of land needed for tenant farmers. Moreover, the trend towards cultivation meant that the new emphasis on agriculture increased the demand for land in British agriculture. Since 1860, the number of Irish migrants increased significantly due to the desire of the English farmers to purchase land, which reduced the number of acres available for cultivation. As a result, the Irish migratory workers were increasingly forced to adapt or leave the trade of the migratory workers. As a result, they were surprised to find:

Over nearly every town are seen...two or three little doors, with the points and under coverings, and below there are two men; one of them is a shoemaker, and the other is a tailor.