AN UNEXCEPTIONAL COMMODITY: COAL IN SOUTH-WEST LANCASHIRE IN THE SIXTEENTH CENTURY

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Coal mining has its associations with the eighteenth century and beyond, and with major industrial activity: an essential element of the Industrial Revolution. Perspectives associated with the Industrial Revolution tend to have dominated the investigation of coal mining in terms of geographical locations of workable deposits, transport facilities, and opportunities for distribution, quantity of production, and the impact of coal on other industrial developments. All of these factors have, of course, considerable significance in the North-West of England. There has been also some interest in the precursors of eighteenth-century industrial activity: industry before the Industrial Revolution. The concept of 'proto-industrialization' has been debated and refined. This has generated a growing interest in industrial activities in an essentially pre-industrial rural economy. The perspective, however, has often been that

of development into the eighteenth century, with a concentration on geographical distribution and scale of production of coal mining. Only a few historians, notably J.T. Swain, have been concerned with the impact coal production actually had in the pre-industrial economy of the sixteenth century. This essay seeks to undertake such a study by examining those individuals involved in production, those distributing coal, and those using coal in south-west Lancashire at this time.

Coal had been produced in south Lancashire certainly since the fourteenth century. In the medieval period this coal was in all likelihood obtained from drifts very near the surface or through digging quarries or delves of no great depth. In 1310 the royal grant to William le Boteler for repair and maintenance of Warrington and Sankey bridges made reference to tolls on goods crossing these bridges, including a farthing for every thousand turves, a halfpenny for a cartload of wood, and a halfpenny for a cartload of coals. By about 1540 John Leland recorded the ‘canel like se cole’ to be found a mile from Wigan and the coal pits located at a number of unspecified sites in West Derby hundred. In south Lancashire coal had long been in production and use, although whether contemporaries had any perception of ‘industry’ remains extremely doubtful.

Through suitable geological factors coal was extracted in the sixteenth century at several locations in south Lancashire: the Wrightington area, the Wigan area, the St Helens area, and the Prescot area (Figure 1). It is with the latter two locations (unspecified by Leland) that this study is concerned. John Langton has recorded the distribution and extent of production in considerable detail; he has identified eleven collieries in operation by the last decade of the sixteenth century. His and other studies, especially by John Hatcher, have investigated meticulously the various patchy sources to

I am indebted to Miss Janet Gnospelius for considerable assistance and expertise in producing this map.

estimate the output of this mining activity and the rate of development. It is claimed that production reached 2,500 tons per annum in the 1590s at Prescot with about the same quantity at adjacent Sutton Heath.\(^6\) The records used for these estimates are largely those from Prescot manor identified by F. A. Bailey.\(^7\) Prior to the 1590s quantification of coal production in south Lancashire is hazardous. Even by


contemporary standards the level of production was relatively small and in no way could have competed in volume with coal from the Tyneside area and the regular shipments of it down the east coast to London.

Transport opportunities in the North-West of England were limited in the sixteenth century, compared with some other regions of the country. The sea, coastal marshes (for instance along the Mersey estuary), and extensive inland mosses imposed a ‘measure of isolation’ that had been little ameliorated even by the end of the century. Roads were mostly trackways used for local communication, rather than having any pretence to be major thoroughfares. The limited parish register evidence that is available for this area suggests little contact between this area and the outside world. Childwall, Hale, and Walton registers have no references in the sixteenth century to individuals from outside south Lancashire, Huyton register has one reference to an individual from Yorkshire, and Prescot register has just seven references to Cheshire, one to Derbyshire, one stranger, and one traveller. The use of patronymics for the names of some wives and daughters continued in these registers until late in the century, suggesting a measure of insulation and conservative development.

The one port in the area, Liverpool, did provide some outside contact but with a population of only about 1,000 by the end of the sixteenth century its trade was scarcely substantial or diverse.

South-west Lancashire was an area of large parishes with many townships, scattered settlement, and poor transport. For

11 Below, pp. 13–16.
this isolated and fairly remote part of the country use has been made of material from four parishes (Childwall, Huyton, Prescot, and Walton) to examine coal production and the impact the industry had during the sixteenth century. In a predominantly agrarian economy coal, none the less, had an impact on its producers and its users even if it was of no great novelty and regarded as an unexceptional commodity.

II

Particularly during the second half of the sixteenth century, it has been claimed that landlords under financial pressure from inflation were anxious to locate and exploit any natural resources available on or under their estates, and indeed contributed significant initial capital outlay to this.\textsuperscript{12} In south Lancashire considerable forest clearance in the early medieval period and the absence of other minerals meant that coal production was one of the few realistic possibilities for alternative income. The easily available coal deposits were, however, limited. The major landowner, the earl of Derby, and other landowners tried to profit from their resources, but usually did so at second- or third-hand through the leasing of the mining rights. In these circumstances minor gentry and freeholders became closely involved in contested demarcation of property boundaries and in the terms and legality of leases. Substantial income could be generated from coal production, but it remained a speculative venture; mines might prove difficult to exploit, or supplies of reachable coal might be rapidly exhausted, or the costs of wages for miners might be too great to ensure a worthwhile investment.\textsuperscript{13}

Some exploitation could operate at a very basic level. As early as 1507 the earl of Derby had agreed to a seven-year lease to two colliers in Whiston at 20s. per annum. By 1521 this had become renewable annually at 24s. per annum.\textsuperscript{14} This has the

\textsuperscript{13} Swain, \textit{Industry}, pp. 167-70.
\textsuperscript{14} Manchester Central Library, Farrer Collection, L1/54/2 (rental of earl of Derby's estate).
appearance of a direct, uncontested arrangement, but in all likelihood other parties may have been involved. The will of Richard Halsall of Whiston in 1557 refers to his subletting of half a delf of coal.\textsuperscript{15} Alternatively, coal exploitation on the Halsnead estate in Whiston provided a source of contest as parcels and closes of land were exchanged by mutual agreement between the Pemberton and Wetherby families, much to the chagrin of the local minor gentry family, the Ditchfields.\textsuperscript{16}

The ownership of Prescot manor provided the opportunity for one of the most confused and locally debated sites of coal exploitation. Prescot manor and rectory were the most northerly and distant assets of King's College at Cambridge. Absentee, remote ownership allowed for all sorts of opportunities. By 1568 the college authorities had granted a ten-year lease at £9 per annum of its demesne property of Prescot Hall to John Layton, the nephew of the provost of the college, Dr Robert Brassey. He was to have 'all that their coals myne or mynes or diggying of coales', although it appears that the arrangement anticipated that the coal would be 'for the onelie fuelle and fyre of the said John Laton, to be spent onelie in the sayd mansion howse'.\textsuperscript{17} This lease was renewed and assumed by John Layton's son Philip; by 1582 he had a further ten-year lease. The exploitation, however, was scarcely confined to production for domestic consumption only. In 1586 the vicar of Prescot conveyed information to the provost of King's College about the real nature and extent of Philip Layton's mining activities; the vicar claimed that one mine in Ten Acre Wood was worth £100 a year and that there were other locations yielding coal. It was 1592 before Philip Layton eventually obtained a licence to sell his coal when production had reached over 2,000 tons per annum.\textsuperscript{18}

In view of this level of activity it is not surprising that tenants at Prescot looked to exploit the resources of their copyhold land, although whether for their own domestic use

\textsuperscript{15} Lanes. R.O., WCW 1557 Richard Halsall of Whiston.
\textsuperscript{16} P.R.O., DL 1/Eliz. I/34/D 7 (Duchy of Lancaster, Bills and Answers); Lanes. R.O., DDWi 8–9 (Willis of Halsnead papers).
\textsuperscript{17} A selection from the Prescot court leet and other records, 1447–1600, ed. F.A. Bailey, R.S.L.C. LXXXIX (1937), pp. 16–17.
\textsuperscript{18} Ibid. pp. 19, 22, 30, 302.
or for profit remains unclear. Complaints of their activities reached Dr Roger Goad, the provost of King’s College during the 1580s and 1590s. In 1592 the provost made a singular visit to Prescot and at the meeting of the manor court, where he presided in person, coal mining by copyholders was an issue, such as the mining activity by Ralph Fletcher on his land south of the road to Liverpool. Exploitation by the Prescot tenants was, however, allowed to continue; chance of copyhold location must have been the decisive factor in determining who benefited.

Only a couple of miles away in Sutton township another protracted dispute dragged on. The landlord Richard Bold, esquire, eventually brought a case in the Duchy of Lancaster court against a local gentleman, Richard Eltonhead, and others who, it was alleged, had been making enclosures on the common, Sutton Heath, in order to exploit coal deposits. The lengthy depositions of witnesses made reference to the exploitation of this coal since about 1550, including from several coal pits within 60 roods of Richard Eltonhead’s house. In all probability some coal for domestic use had been obtained at this location for some decades; indeed, there must have been a fine distinction between obtaining turf or peat from the heath and coal when it outcropped at the surface. Expanding production and profitability concentrated attention on ownership and on the imprecise licences that were alluded to frequently. An arbitration in 1588 recognized the long-standing ‘licences’ of Richard Eltonhead to the extent that he was to be allowed to work coal pits to produce up to twelve cartloads per annum: presumably at that level intended largely for his own domestic use. The exploitation of Sutton Heath, however, was still being contested well into the seventeenth century.

In the same township further coal deposits appear to be behind another contest involving the actual ownership of a small manor, Burtonhead. Again the dispute appears to surface in the 1550s. Fortunately for later historians, this

19 Ibid. pp. 299, 304; Bailey, ‘Early coalmining’, p. 11.
dispute surely occasioned the production of a map dated to about 1580 showing the actual location of the manor house and the coal deposit at issue. Possession and exploitation of this coal had become a serious, protracted local issue. In 1554 Burtonhead had been granted for life to George Pemberton (a gentleman from Whiston) by Hamlet Ditchfield (a gentleman of neighbouring Ditton). Only the following year the manor appears to have been sold for £400 to a syndicate of five gentlemen. Three years later the Pemberton interest was bought out, and part of the manor with ‘a mine of coals’ let to William Wolfall, another local gentleman.21 Little is known of the actual coal exploitation here, but local gentry interest in the resource was acute. Twenty years later when the map was drawn the unknown cartographer depicted five ‘eyes’ or pits for mining very close to the hall of Burtonhead, suggesting pits dug perhaps in progression over a short distance with the waste dumped around each shaft. The location was clearly identified as ‘Pembton’s cole myne’.22 Notwithstanding the transactions of the 1550s, by the time of the map’s making the Pemberton family from Whiston still had an interest in this resource and not until 1602 did James Pemberton sell his portion of Burtonhead manor to Edward Orme of Tarbock, who a month later conveyed it to Edward Eccleston, esquire, of Eccleston.23

This exploitation by landowners, freemen, and even copyholders did create employment opportunities for perhaps relatively unskilled labourers. At Prescot there are various references to Philip Layton’s ‘colliers’ working on his demesne land. In the 1590s he had an arrangement with two Prescot husbandmen to allow them to dig coal on specified land on payment of 3s. for every ton they produced. By 1597 Layton claimed that the men had produced some thousands of tons since 1594, without keeping proper accounts and making due payment. The implication was that some men had had good employment in producing this coal, and certainly ten men armed with swords, daggers, staves, pikes, and pitchforks

22 Lanes. R.O., DDSc 32/1 (Scarisbrick of Scarisbrick papers).
23 Ibid. QDD 9/12 (Enrolled deeds of bargain and sale).
rallied to the support of the husbandmen/colliers in protecting their mining interests.24

Some of this employment may well have been on a part-time basis by men who happened to live in a convenient location or by labourers operating on a fairly casual basis. George Ackers of Tarbock, for instance, was referred to in 1592 as a labourer, but in 1595 as a collier. William Holland of the same township was recorded as a husbandman in his 1593 will, yet was owed money for one ‘work’ of coal that he had produced.25 These contemporary appellations may reflect lack of distinction and definition of the coal mining activity, and/or a more genuine part-time and casual form of employment. Richard Halsall of Whiston, according to his will of 1557, had half a delf of coal which he left to his son Henry, but he had also oxen, seventeen cows, pigs, and various crops amongst his probate assets, surely representing a form of dual economy. William Litherland of the same township was recorded as a collier in 1582 and his appraisers assessed his fifty ‘works’ of coal to be worth £5, yet he also had significant agricultural interests with his cows, horses, and sheep.26 In effect this form of dual economy was probably not unlike that practised by many craftsmen in this area, such as blacksmiths and carpenters. It is possible that with problems of winter flooding, coal mining was in any event a seasonal activity.27

For gentry, freemen, and copyholders interest in coal mining was possible with relatively little capital involved, at least in the early stages of exploitation; hire of labourers (probably part-time and seasonal), some timber, ropes, baskets, and hand tools were the only requirements where surface deposits were located. There was every incentive to get involved in the exploitation of coal if at all possible. One gentleman at least, Cuthbert Lathom of Allerton township, had interests beyond his immediate property; he bequeathed to his second son his ‘cole mynes’ at Wrightington.28 At worst

24 P.R.O., DL I/Eliz. I/183/L 5.
26 Ibid. WCW 1557 Richard Halsall of Whiston; WCW 1582 William Litherland of Whiston.
the assets could provide domestic fuel and at best they could provide a welcome source of additional income in an area of low agricultural profitability and modest incomes. For unskilled workmen in the lower levels of society coal mining offered welcome additional employment opportunities.

III

Coal production and the transportation of this bulky and heavy commodity have been inextricably linked. Demand for and consumption of coal in the early modern period remained often, in consequence, very restricted. It has been claimed persistently that coal was hardly ever burned domestically more than one or two miles from where it outcropped. Richard Bold, esquire, claimed that coal from Sutton Heath was taken for use at Bold Hall. King's College had recognized that John Layton, their lessee of the demesne at Prescot, should have coal for his 'fuelle and fyre'. Clearly in the immediate vicinity of production coal was used as a domestic fuel, not least by the gentry landowners themselves. The will of John Ogle, gentleman, made specific mention of coal provision from his Whiston property for his widow for her domestic use.

Probate records such as this provide some indication of the extent of the local use of coal, although there seems every chance that small quantities of coal went unrecorded by appraisers and the time of probate in the year will have influenced the availability of coal supplies. At least the probate evidence demonstrates the use of coal through many sections of society. During the period 1557–1603 sixty-two individuals from the parishes of Childwall, Huyton, Prescot, and Walton are recorded with supplies of coal in probate inventories (from a total of 474 surviving inventories). During the 1570s and 1580s the numbers represent just over 7 per cent of available inventories, but by the 1590s this had more than doubled to

30 Crofton, 'Coalmining records', p. 34; Nef, Rise of British coal industry, p. 12.
31 Prescot court leet, pp. 16–17, 23; Lancs. R.O., WCW 1562 John Ogle of Whiston.
over 15 per cent of inventories. Seasonality of stockpiled supplies and the uncertainty of probate compilation surely render these percentages as significant underestimations of those individuals with coal supplies in south Lancashire.  

Supplies of coal could range from a few shillings (representing a ton or more) such as the quantities recorded for Baldwin Smith in Widnes in 1562 (6s. 8d.), Richard Wainwright in Halewood in 1582 (6s. 8d.), and Thomas Hitchmough in Liverpool in 1591 (4s.) to John Lawton of Ditton (1591) who had 80s. worth.  

Presumably these coal supplies were usually kept in a stack convenient for use in the house. Richard Bird of Liverpool had ‘one pyle of coles’ whilst Miles Kirkdale of Liverpool was required to move his turf stack and coals from against the house of another burgess. The latter detail does suggest that the use of coal was not exclusive; the same consumer could be using peat and coal as appropriate and as available.

There is no direct evidence to suggest that this coal was being used industrially in any regular or organized way. A blacksmith in Sutton had 3s. 4d. worth of coal in 1597, but he was very close to an area of production and this quantity may well have been for domestic use. Small quantities of coal were purchased specially to smelt iron for repairs at Prescot in 1555 and again to recast bells in 1585, but these appear to be particular uses and purchases warranting special mention.

Even over short distances coal had to be moved by pack-animal or cart. As has been succinctly said, ‘very little is known about roads and land transport . . . and very little may ever be known’. The 1310 royal grant for the repair of Warrington

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32 Swain, *Industry*, p. 163: in N.E. Lancs. the percentages were lower than in S.W. Lancs.
33 Lancs. R.O., WCW 1562 Baldwin Smith of Widnes; WCW 1582 Richard Wainwright of Halewood; WCW 1591 Thomas Hitchmough of Liverpool; WCW 1591 John Lawton of Ditton; a ‘work’ of coal represented a collier’s daily output and may have equalled about 3 tons, worth about 1s. a ton in the 1570s: Bailey, ‘Early coalmining’, p. 3.
35 Lancs. R.O., WCW 1597 Henry Boardman of Sutton.
36 *Prescot court leet*, pp. 36, 100.
bridge made reference to the halfpenny toll on every cartload of coal. Recent comment has suggested that transport costs in the medieval period were not as great as has been claimed and that until the eighteenth century these costs remained relatively stable. Road conditions and time of the year were both variables, but pack-animals and carts could manage about fifteen miles a day. This would have made distribution of coal over a ten–twelve mile radius in south Lancashire very viable by pack-animals in the summer months, particularly in an area where most land lay below 50 ft above sea-level. By the 1590s, however, it was not exceptional for ‘carters’ to be moving the coal regularly from Prescot Wood. A few specific coal-carts are recorded in probate inventories (as well as many other carts and wains): four in the twenty-year period 1583–1602, in Aigburth, Widnes, Parr, and Windle. In the cases of both Aigburth and Widnes the location was several miles away from the nearest known coal deposit. A measure of this regular local traffic is suggested by the case in the 1601 Quarter Sessions when Anne Wyke of Whiston was presented for persistently refusing to cleanse her ditch and keep a ‘way’ repaired between her house and Foxes Brook to the effect that the people of Ditton and Tarbock were being obstructed in their carriage of coal.

A longer route lay via Farnworth or Great Sankey to Warrington and its bridge over the Mersey. Here local tracks and roads reached a major thoroughfare: the London road, south via Lichfield and Coventry or north via Preston to Lancaster. This is not to suggest that coal from south-west Lancashire necessarily went any great distance, but it was being taken across the Mersey. Access to the Mersey at Warrington,

39 P.R.O., DL I/Eliz. I/183/L 5.
40 Lanes. R.O., WCW 1583 William Brettergh of Aigburth; WCW 1600 John Denton of Widnes; WCW 1602 Richard Boardman of Parr; WCW 1602 Thomas Fox of Windle.
or Widnes, or at Fiddlers Ferry in Cuerdley also allowed for the use of water transport. Coal moved by this means is not known to be recorded at this time, but clearly other commodities were transported in this way. During the second half of the sixteenth century a number of Manchester merchants exported and imported goods through Liverpool, for instance Richard Fox over a thirty-year period exported Manchester cottons, hops, alum, nails, and aniseed whilst importing linen yarn and wool. Adam Byrom of Salford used a Liverpool factor to import Spanish iron which was specifically to be conveyed by water to him. Pickards and other small vessels were used for transport from Liverpool via the Mersey to Warrington and Frodsham, and it is inconceivable that coal which was available at Widnes and Warrington was not obtained and transported using this route. Gentry and copyholders with coal deposits under their land could and did claim exploitation for their own domestic use, but clearly many others in south Lancashire and possibly Cheshire were able to benefit from coal production.

IV

The most frequented route for south-west Lancashire coal was, however, the six miles or so by land from the production areas in Prescot parish to Liverpool. By 1563 the town records noted that coal was being conveyed by wain, cart, or on horseback into Liverpool. There was some attempt in this decade to restrict the shipment of coal from the port and to limit the use of coal to domestic purposes. Perhaps this is an indication of the level of demand by residents through the town's weekly market for limited supplies. Even so some coal was already being exported and no more is heard of these early restrictions.

The Port Book entries for Liverpool are far from ideal sources of evidence for the export activity. They are rarely complete for twelve consecutive months, there is uncertainty over the inclusion of all or only some coastal trade, and as an

43 P.R.O., E 190/1323/4, 9, 12; E 190/1326/8, 19 (Exchequer, Queen's Remembrancer, Port Books); Liverpool Town Books, I, p. 170.
44 Liverpool Town Books, I, pp. 246, 400.
outport of Chester (but claiming its independence) there was plenty of scope for evasion and confusion. From 1565 there are separate Port Books for Liverpool and it does become possible to use the material to discern sustained coal exports and limited growth. Mostly coal was shipped in quite small quantities (as were most products from Liverpool), averaging from 10 to 14 tons per voyage. The destination of this coal was influenced by existing shipping patterns from the port with, not surprisingly, great dependence on coastal traffic and the Irish ports. Some fluctuations in the scale of coal exports may be the result of inconsistent demand caused by varying English activity in Ireland; certainly the 1599 expedition to Dublin took its own coal with it. By the 1580s over 200 tons of coal were exported per year but levels reached over 400 and then over 500 tons during years in the 1590s.\(^45\) This may have represented 20 per cent or more of annual production.

In Liverpool there never were a great many ships during the sixteenth century, and even those were in fact quite small. In a national survey of shipping in 1560 Liverpool had no vessels over 100 tons, although the town had sixty-one mariners. In 1565 just twelve vessels of more than 6 tons were recorded. By the end of the century the mayor of the town mentioned twenty barques being requisitioned for transport to Ireland. Most ships were in the 12–20 tons category with crews of five or six men. A few ships may have been of 20–40 tons needing up to ten or twelve men to crew them.\(^46\) Most of these small vessels were owned by one or two men, and many owners sailed as their own master, although not necessarily on every voyage.\(^47\) During any one year, therefore, two or three men captained most ships on their various voyages. As far as the export of coal was concerned it was these men, the owner/masters, who were particularly significant. Coal was usually their share of the cargo that they carried. It was virtually the only product of Liverpool’s immediate hinterland that was available in any surplus quantity.

\(^{45}\) P.R.O., E 190/1323–8; Nef, *Rise of British coal industry*, p. 90.

\(^{46}\) P.R.O., SP 12/11/27 (State Papers, Domestic, Elizabeth I); Historical Manuscripts Commission, 9, *Salisbury, XI*, p. 466; *Liverpool Town Books*, I, p. 280.

Coastal trade in north-western England and along the north Wales coast was of some significance, albeit poorly recorded. However, food supplies predominated amongst the cargoes, with the transhipment of iron, pitch, and wine to places such as Workington, Milnthorpe, and Ravenglass. Coal does not seem to have been carried (at least regularly) on these small coastal vessels. To north Wales contact was equally sparse: one or two vessels a month for instance during 1602–3. Food supplies, wheat, barley, oats, peas, beans, predominated with, however, some tons of coal. Typically, in November 1602 the *Gift of God* of 20 tons left Liverpool with Henry Moneley as master bound for Barmouth with wheat, barley, and 8 tons of coal. Eight weeks later in January 1603 the same ship with Edward Pope as master sailed to Beaumaris with barley, malt, and 16 tons of coal.\(^{48}\)

The backbone of Liverpool's commerce was trade with the ports of the east coast of Ireland. A considerable variety of goods was transported from Liverpool: wine, hops, malt, cloth of various kinds, haberdashery goods, salt, iron, bags of nails, soap, cutlery, pots and pans, spices and dyestuffs. These goods were assembled from a variety of national and even international locations; the predominant local product was coal, presumably that mined about six miles away in the townships of Prescot parish. Liverpool merchants, individually or in small consortia, provided the mixed cargoes, and the ship-owner/master provided the coal. Regular cargoes of 6 tons were shipped, quite frequently 10 or 12 tons, with 20 tons appearing as the largest regular scale of shipment. Increasing demand during the 1590s was met by more voyages rather than larger cargoes. Overwhelmingly these Liverpool ships made for Dublin and Drogheda, for instance fifteen voyages to each in 1569–70, or thirteen to Dublin and twenty-eight to Drogheda in 1579–80, and thirty-eight to Dublin and twenty-nine to Drogheda in 1592–3. A handful of ships used Dundalk, Carlingford, Carrickfergus, and Waterford.\(^{49}\) Some of this coal was for use by the garrisons and expeditionary forces of English soldiers. In 1574 Thomas Bavand, a Liverpool merchant, was a royal supplier of all kinds of commodities to the earl of Essex at

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48 P.R.O., E 190/1328/2, 7.
49 Ibid. E 190/1323/4 to E 190/1328/7.
Carrickfergus, including 30 tons of coal shipped in the 36-ton *Saviour* along with wheat, malt, butter, and salt.\(^{50}\) Other coal supplies must have gone to the populations of the Irish ports. Typical of much of this regular traffic from the 1560s onwards were the voyages of the *Michael*, the *Peter*, and the *Mary George* of Liverpool during the autumn and winter of 1565–6. Edward Nicolson, the master of the 24-ton *Michael*, carried 20 tons of coal to Dublin along with the goods of three Irish merchants which included alum, hops, and Yorkshire friezes. The 14-ton *Peter* with William Rose as master carried 8 tons of coal with various fabrics, grocery wares, and Castile soap belonging to four Dublin merchants. Thomas Fisher, the owner and master of the 16-ton *Mary George* had just 6 tons of coal together with goods belonging to an Irish merchant, a Manchester merchant, and a London ironmonger on his voyage to Drogheda.\(^{51}\)

A shadowy feature in this supply of coal surrounds those responsible for the landward distribution of the coal to Liverpool. Clearly some individuals, whether gentry or husbandmen, fetched and transported their own supplies. Some landowners were undoubtedly involved in distribution activities. William Ditchfield, gentleman, and his son John (of Ditton) were both active salesmen. At the time of his death in 1582 John Ditchfield had eight ‘loads’ of coal in his possession and he was owed money for supplies of coal by eight different debtors, totalling quite a considerable quantity: 82 tons, three ‘loads’, and five barrels in all.\(^{52}\) The use of barrels provides an interesting aspect of transport possibilities. Very intriguingly, he had also 9 tons of coal ‘at the bridge’ (location unspecified); possibly a reference to Warrington and distribution beyond the immediate locality.

There was scope also for genuine middlemen who purchased and resold the coal that they distributed. George Tapley of Prescot appears to have been active from 1566 to 1584 in supplying coal over fairly short distances (3–5 miles) to Ditton, Halewood, Wavertree, and maybe also to Liverpool. Henry Blundell of Prescot supplied coal over the period 1594–1604, during which time he was referred to as a

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\(^{50}\) P.R.O., E 190/1324/6.
\(^{51}\) Ibid. E 190/1323/4.
\(^{52}\) Lancs. R.O., WCW 1582 John Ditchfield of Ditton.
husbandman, a yeoman, and an alehouse keeper. Possibly he was all of these in succession, or at one and the same time: an opportunist and an entrepreneur. Robert Halsall of Sutton was likewise owed money in 1595 for delivery of 12 tons of coal. At least one woman is recorded as having interests in coal-dealing. Margaret Ditchfield (widow of Robert) of Sutton was owed money by eleven debtors in 1594 specifically for coal. The quantities were mostly small, all less than 4 tons. Since her probate inventory valuation was only £37 17s. 6d. little prosperity and comfort is suggested. The assumption must be that coal ‘trading’ was a significant commercial activity for her.

Production of coal in south-west Lancashire was never extensive during the sixteenth century and almost certainly not as significant as that of the Wigan area. Any impact on the environment would in all likelihood be slight across the entire area. However, this is not to say that coal production did not create some noticeable environmental impact. The exact location of coal deposits at or near the surface could be of considerable interest to the local community. At Prescot ‘cool pyte eyes’ had been dug in the highway through the wood and then abandoned before being filled in. Certainly in 1618 Lawrence Harrison drowned after falling into a coal pit in Prescot Wood on a dark evening. On Sutton Heath it was claimed that coal pits dug by Richard Bold were a danger to cattle pasturing on the common.

Timber was a necessary material once coal exploitation became moderately serious. By the 1590s the level of activity in the Prescot area was such that the felling of trees in Prescot Wood for use as pit props and stakes was a cause of concern to the manor court. Still more interesting is the case at the court

54 Lanes. R.O., WCW 1594 Margaret Ditchfield of Sutton.
55 Prescot court leet, p. 273; Bailey, ‘Early coalmining’, p. 16.
56 Crofton, ‘Coalmining records’, p. 57.
in 1594 when Philip Layton was presented for felling trees to make ‘rayles’. F. A. Bailey speculated that there may have been a short rail-way or wain-way to transport or haul the coal the short distance to the main Prescot–Liverpool road. It is possible also that by the end of the sixteenth century mining was becoming slightly more sophisticated with drainage powered by a waterwheel in the Sutton Heath area. The transport of coal could have another environmental impact. By 1574 individuals conveying turves and coal by cart into Liverpool were charged a 2d. toll per cart towards the repair of the pavements in the town.

Smoke arising from coal-burning can have been scarcely extensive enough to have been a major environmental hazard, yet it must have been noxious in the confines of a small individual house or cottage. Use as domestic fuel seems to have been the most ready market but, since chimneys were a recent development in many domestic buildings, coal must have been a less than pleasant successor to peat consumption. Perhaps the prominent red chimney on the 1580 map of Burtonhead Hall is testimony to a new brick chimney.

Increasingly during the sixteenth century coal production and use became a routine aspect of the economy in south-west Lancashire. It was not a novel commodity at the start of the century but interest in exploitation and production did gather some pace, so that the consumption of coal by the end of the century must have been of increasing significance for both producers and users. As a fuel it was available fairly widely, accessible both geographically and socially (alongside the continuing use of turf or peat from the mosslands of this area). There is some indication that transport across the Mersey at Warrington, along the Mersey, and into Liverpool by road made this coal available to a still wider market and that the distribution, the conveying, and the sale of this coal was of some consequence for the population of south-west Lancashire, within a largely unchanging agricultural community. Indeed, since coal was produced also in the

58 P.R.O., DL 4/64/5.
60 Walker, Historical geography, pp. 61–2.
Wigan and Wrightington areas quite an extensive proportion of the south of the county must have been affected by the impact of coal production.

An indication of the level of interest at the end of the century is provided by the plans for exploration and investigation of new deposits. The earl of Derby carried out surveys on his property at Knowsley Park in 1602 and by 1610 Sir Richard Molyneux was paying colliers to look for coal at Croxteth and Kirkby. 61 All of these locations proved disappointments and coalless, but production at the existing locations in south-west Lancashire remained viable. Coal was a significant, but unexceptional, commodity.

61 Hist. MSS. Com. 9, Salisbury, VIII, pp. 167, 548; Lancs. R.O., DDM 4/1 (Molyneux of Sefton papers).