THE WOOLHOPE NATURALISTS' FIELD CLUB

(WARS SYNOPTIC SERIES)

RESEARCHING THE LEOMINSTER CANAL

Paper 10 : CANAL ERA

(A Socio-economic Setting)

Recalling the Survey of 1789

by

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A SOCIO-ECONOMIC CHAPTER . . . *background to the 'Canal Era'*

- PREFACE -

The W.A.R.S. 'Programme of Forthcoming Events', as originally printed on the outside rear cover of our newsletter 'HAN Autumn 2000' had scheduled a return visit to the ". . . eastern section of the Leominster Canal" - whereas the actual intention was to show members more of the old tramways, collieries, and unfinished sections of canal in the vicinity of Mamble, Hunthouse and (possibly) Pensax. The date allocated was to be the 1st April 2001, so this should have provided plenty of opportunity for preliminary reconnaissance during the intervening six months. A start was made by Martin, Rosamund, Iris and myself when, following contacts with Charles Kellet and other members of the Pensax History Society, we were kindly invited to tour the dense woodland below Pensax village school. New contacts were established, and this excursion was later followed by Martin's L.C.P. presentation to their Society in Abberley Village Hall.

But little did we know that the region would soon be in the grips of a dreadful 'Foot & Mouth Disease' outbreak that was to delay any further such excursions and it soon became apparent that our April expedition was doomed to cancellation - as indeed was the whole programme of W.A.R.S. field-investigations for the foreseeable future. It was decided, at short notice, to attempt instead some sort of alternative and, courtesy of Shirley Preece, the membership was invited to a slide presentation and talk at 'Wiltondale'. It was felt that a change of subject-matter, other than the Canal, might be welcome and, since we shared an interest in early railroads, preparations were made for the talk on horse-tramways. From this came the idea of extending and developing the material in the form of a further L.C.P. Occasional Paper devoted to the West Worcestershire Coalfield which was based on my 1970's notes previously compiled for a Hereford Ramblers' walk.

- INTRODUCTION -

As with most inland waterways *(Leominster Canal excepted!)*, there's a wealth of literature on the early tramways; but much seems repetitive and derivative, in the sense that such historical information is frequently recycled, although (hopefully) gaining a fresh and/or localised perspective in the process. Our own booklet was certainly in that tradition - since we had conducted little or no fresh (Mamble) research - but had aspired, instead, to focus attention on the geographical spread of the early railways together with their socio-economic impact on our region so that particular emphasis was devoted to a narration of the underlying (sometimes faltering) technological progress entailed.

Our experience, when contemplating the Leominster Canal's history, mirrored that of numerous other investigations because we perceived that the early canals and railways in our region were closely linked, with it being virtually impossible (and probably unwise) to study the one in isolation from the other. One needs only to read the original Leominster Canal Act (1791) to appreciate this point. Not only is there this close legal, commercial and technological association between waterway and railroad but, such is the frailty of human nature, that we find the same mistakes reflected in their respective histories. Nowhere is this parallel more strikingly demonstrated than in the comparison of 'Canal Mania' with the 'Railway Mania' of fifty years later, as succinctly summarised by L.T.C.Rolt in his classic book of 1950: 'The Inland Waterways of England' :

> ***" The fact that this story was to be repeated exactly in 1845 would certainly seem to confirm the gloomy dictum that mankind does not profit by the example of history."***

SOCIO-ECONOMIC SETTING . . . *to the early canal and rail developments*

Study of the period is hampered by a lack of accurate demographic and economic statistics, although certain trends have been identified by economic historians. The following attempts no direct reference to 'canal people' (landowner issues, navies and boatmen, etc.) since that would deserve much lengthier treatment. Instead, it essays a more general, overall (national) picture derived mostly from Ashton (1961), and Dean (1965/78), with some additional data mainly furnished by reference to Floud & McClosky (1981)

- TRADITIONAL MANUFACTURE . . . and impending (national) change -

There seems little certainty as to how much of a growing eighteenth century prosperity was expended on home produced consumer goods, and at what stage the late eighteenth century expansion took off, but price evidence suggests a fairly vigorous demand for home-produced consumer goods after 1750, and it is usually considered that our pre-industrial economy was ended by 1773/5 at the latest.

Traditionally, since mediaeval times, our major manufacture was woolen produce, with Flanders acting as the entrepôt to Europe, but even this had started to change by the early eighteenth century. The changes were both organic and demographic; with a shift from the traditional coarse woolen 'kersey' trade of southern England (Devon was especially noteworthy by the seventeenth century) to the worsted stuff of Norfolk and

Yorkshire. Lancashire flannel and Nottinghamshire knitted stocking wears was also increasingly in favour with the more sophisticated continental "new drapery" market.

Largely as a result of Huguenot immigration, silk production was also becoming established (initially) in parts of the midlands; it was boosted by the introduction of the silk-throwing mill and by official government protection against French imports - obviously a continuation and development of the seventeenth century 'mercantilism'. Mercantile theory had required the establishment of vast overseas colonies - plus expensive trade wars for their acquisition and protection - so hence the Navigation Acts of 1651-9 and, by its very nature, persistence with such policy was bound to transform commerce and industry, although the more sinister long-term consequences were not always appreciated.

In this latter regard, our colonies were perceived merely as producers of raw materials, to be transported for manufacture in Britain (by British ships), and as the passive recipients of our re-exported produce in a captive market: trouble was sure to ensue in the long term, as foretold by Adam Smith and other advocates of 'free trade' when they opposed such protectionism. These warnings were not heeded, despite the advocacy of the Lords North and Shelburn for greater North American reciprocity, and not withstanding, also, the sympathy of Pitt the Younger for Smith's ideas. American rebellion and renewed wars with France, Spain and Holland were eventually to result. Of the Anglo-Spanish Asiento Agreement (to ferry slaves to the Spanish empire), and of the infamous growth of trafficking within our own Caribbean and American possessions, then perhaps the less said the better – except to remark the long-term demographic aftermath up to, and including, the present day.

- INDUSTRIAL CHANGE -

Industrialisation is generally thought to have accelerated between 1750 and 1850; with a starting point of 1760 being originally suggested by historian Arnold Toynbee in his Oxford lectures of 1880/1, but extensive studies have since questioned his dating. Following the challenge of American historian J.U.Nef in the 1930s, a new generation of economic historians has since grown up and, in servicing their (increasingly) mathematically inclined economist colleagues, more statistical and objective techniques are now called for, so that the subject has come to be dominated by investigations of the various indices of economic growth.

Nowadays economic historians, of many nationalities, continue to debate and dispute the precise 'starting point' of the Industrial Revolution - according to which indices they favour! - but all seem agreed that industrialism started in Britain, and most would settle for a 'take-off' date in the 1780's. On the other hand, many traditional historians might consider this whole debate to be somewhat spurious, arguing instead that different indices must naturally give different dates, and that it is therefore more productive to study (like Professor Nef) the origins and underlying historical trends of industry by reference to the known chronology of inventions and innovations, most of which, *per contra*, can be dated with considerable accuracy. Certainly, the origins of industrialism are much earlier than the late eighteenth century whilst, for many historians, the above arguments of those seeking to serve the 'New Economics' may perhaps seem recondite and something of a red herring?

- INVENTIONS -

Many manufacturing inventions, such as the original stocking frame (William Lee,1589), can be traced back to at least the sixteenth century. Lee's innovation is a particularly useful example because, whilst it clearly speeded up the knitting process, and thereby increased productivity, this made little difference to the organisation of the stocking industry. The knitter simply stayed in his family workshop, assisted by his women folk who prepared the yarn in the traditional fashion so that it remained an improved and yet pre-industrial home-based process. It was the same with the woolen and cotton cloth manufacturers until such times that the mass-production spinning and weaving mills (originally water-powered) reduced and, eventually, destroyed the cottage setting. Industrial productivity was increased by innovations such as Darby's coke-smelting process at Coalbrookdale (1709) representing the first successful substitution of coal for charcoal. Thomas Savery's steam vacuum pump (1698), and Newcomen's *"atmospheric"* steam pump for draining tin and coal mines (1712) were each intended to save both manual and horse labour. Greater thermal efficiency was later achieved by James Watt's low-pressure steam engine with separate condenser (1763) and commercial exploitation followed, in partnership with Matthew Boulton (1774), thus permitting more rapid developments in the 1780's. If these inventions paved the way for the Industrial Revolution, then equally so did the improvements to roads, waterways and railways; and it was the new mechanical and transport innovations that most excited the public in the eighteenth century. The 'Transport Revolution' - of turnpike, canal and tramway - was the key that would unlock the floodgates of our industrialisation.

- FINANCE . . . money and banking in the Eighteenth Century -

Unprecedented sums of money were needed by the government of William IV to prosecute his Nine Years War against Louis XIV and this was initially subscribed by a body of private shareholders, organised in 1692

so as to furnish "a perpetual loan" to become known as the National Debt. This was a distinct improvement upon the forced loans, extortion, and sometimes even torture *(followed, usually, by repudiation of the debt!)* as experienced from the reign of Henry III onwards throughout the Middle Ages. Similar arguments - of fairness and accountability - had led to the Civil War but, under the new scheme, at least the loans were to be voluntary, and the lenders were to be paid interest!

Following the Tonnage Act of 1694, the potential shareholders were formed into a private company - The Bank of England - incorporated, mainly, to finance a government loan of (initially) £1,200,00 at 8% per annum for twelve years, of which only £720,000 was in cash and with the remainder as 'sealed bills'. A permanent charter was granted in 1708 and, in return for this government service, the Bank was empowered to receive public cash on deposit and to lend this at interest, although only in 1750 did the Bank of England officially assume responsibility for the National Debt.

Written promissory notes (later printed) were issued but, whilst this represented a great advance in the media of exchange, the effect was very 'Metropolitan' earning the company the nickname - "The Bank of London". It was really a development from the long-established private banking which had evolved in the City by the activities of individual merchants, brokers, scriveners and, especially, by the goldsmiths. The latter possessed safes and strong- rooms and were accustomed to issuing receipts for deposits (usually silver coinage or bullion) lodged with them and since such notes, when suitably endorsed, changed hands as transferable currency, many goldsmiths such as Richard Colt-Hoare (previously encountered, Paper 4) were essentially, if only in part, bankers in the modern sense of the word.

Whereas the clientele of the Bank of England was very select and decidedly localised, the private London bankers - especially the newer upstarts - were more progressive, and they established business contacts acting as agencies in the provinces (especially in the manufacturing districts) as the economy expanded throughout the eighteenth century. On the other hand, banking services in the country districts had long been provided by anyone of substance (and sufficiently trustworthy!) who commonly handled large quantities of coinage - so as to issue promissory notes which, as with their City counterparts, became acceptable in lieu of cash as bills of exchange. The East Yorkshire Record Office (Beverley) archives indicate that in April, 1793 '*Messrs. Harley & Co'* were providing just such a banking facility in Leominster for payments by subscribers to the Leominster Canal Company. [Chichester-Constable Papers DDCC 147/35]

In this way, it was commonplace for wealthy merchants, inn-keepers, manufacturers, and public companies (including, later, canal companies) to provide banking services. Actual money supply is a different issue and, whilst fascinating in its own right, the prevalent shortage of coinage is nowadays thought to have been less of a hindrance to economic progress in the eighteenth century than was once considered to be the case. Reliance upon silver coinage was undoubtedly a problem, and the shortage of 'ready cash' was its manifestation - as reported from the Royal Mint by Isaac Newton and others - since it led to melting down (for export), debasement, forgery, issue of 'token coinage' (thereby encouraging the growth of 'truck' payments) and several other social evils; but the shortage probably had little effect upon actual rate of economic growth. Conversely, it might be argued that the 'hard cash' shortage probably served to foster and encourage the burgeoning of the newer and more sophisticated banking system and the growing confidence in 'paper money' - in its widest sense.

- POPULATION TRENDS -

The turn of the seventeenth century culminated with increasing curiosity - and no little concern! - about population numbers. Whereas guess work had previously been the norm, in 1696 the pioneering genealogical statistician Gregory King (using official hearth-tax returns) had estimated the population of England and Wales to be 5.5 millions - which still seems sufficiently accurate, given his limited facilities - whereas in his day nobody could previously have been sure of such data.

By the early 1750's there seemed growing concern regarding the naturalisation of aliens, leading, in turn, to further debate as to wether our population might be static or growing - and the reasons behind any such trends? At the time this seemed primarily of concern to the established clergy (plus some dissident ministers of religion) and of whom the Rev. R.Thomas Malthus was clearly a most notable theorist. In short, many traditional clergymen harbored considerable, religiously founded, antagonism to the concept of statistical census which might possibly settle the matter. It was held that not only would divulgence of the figures incur divine displeasure, but that subversion of civil liberty might ensue - and that public disclosure would furthermore be of benefit to foreign powers such as, possibly, France?

Nevertheless, widespread alarm following publication of Malthus's instrumental: 'Essay on the Principle of Population' (1798) may well have triggered a Parliamentary Bill for the 1800 Census Act and resultant first modern (1801) Census - which returned a figure 8,872,000. Prof. Ashton points out, however, that we were

on a war footing at the time and that the total excluded all our armed forces, so he further cites a revised estimate of 9,168,000 reported by John Rickman (1811) whereupon, in summary, he states:

> ***". . . It is fairly safe to say that between 1695 and 1801 the population of England and Wales had increased by about two thirds . . . Such a growth of numbers was new to English experience. Exactly how and why it happened has never been firmly established. But informed opinion lays stress on two factors : the disappearance, after 1665, of the plague that had afflicted Christendom for centuries, and the lowered incidence of famine and the diseases resulting from insufficiency of food."***

From around 1720 the trend was steady population growth that is probably attributed to rising fertility, possibly because of the younger age of first marriage of females and, most likely, this occurred together with improved diet. Throughout the eighteenth century there was also a gradual shift in the distribution of our population from rural to urban habitat. Initially (and spectacularly so) this was seen in London, but with Glasgow, Edinburgh and Dublin later showing, to a lesser degree, the same trend after about 1750. There was also an overall northwards shift of the demographic centre, and in 'The People of England' Ashton has summarised the change as follows:

> ***". . . The iron industry, starved of coal, shifted from Sussex and Gloucestershire to Shropshire, Worcestershire, Staffordshire and South Yorkshire. East Anglia lost ground to the West Riding in the manufacture of worsteds. From London the making of firearms was transferred to Birmingham; silk weaving from Coventry to Cheshire; hosiery manufacture to Nottingham, Derby and Leicester; and (towards the end of the century) calico-printing to Lancashire. It seems probable that the change in the demographic map was the result not of differences in 'natural increase' between regions, but of industrial migration . . . Sometimes when a firm moved the workers moved with it. In 1707, when Abraham Darby transferred his activities from Bristol to Coalbrookdale, many of his workers went with him; and Huguenot names in Cheshire today suggest that Spitalfields weavers were similarly moved to the north. But not infrequently the migration of a firm arose from the desire of an employer to free himself from irritating restrictions imposed by the craft traditions of the older towns; he must often have had a preference for new labour, and it was probably only the more skilled of his workers who were directly transferred . . ."***

Prof. Ashton continues his introductory chapter by reciting some commonly experienced difficulties with such disruption, including the probable disaffection that inter-regional migrants, upon arrival, may well have felt with the weird dialect speech, unaccustomed staple diet, and different modes of dress, etc. We also note his account of the frequently inadequate road surfaces: ironically, these roads would have been much more tiresome for the well-to-do coach occupants than for a common workman trudging, in his customary way, on foot! However, in this time of war the lowly migrants were sometimes at the mercy of recruiting squads and press-gangs, whereas on the other hand, it was only the coach occupants who risked risked the attentions of a highway-man. According to Ashton, yet another deterrent issue for any would-be migrant was a legacy of the 1662 Act of Settlement that was intended to check the influx of paupers to places with:

> ***". . . the best stock, the largest commons and wastes to build cottages, and the most woods for them to burn and destroy : its declared aim was to keep people and resources apart . . ."***

Of course it was probably not the intention of our economic migrants to deliberately embark upon any such misconduct; but nevertheless, the hazard of forced eviction (following only forty days idleness) was clearly a deterrent to many of those contemplating a move with its accompanying uncertainty.

- SUMMARY -

Although we tend to think of the eighteenth century as the setting for the first industrial revolution - and most deservedly so as a period of great enterprise and advancement! - our economic growth throughout the eighteenth century was never spectacular (rarely touching 2%) as compared to the much later experience of rapid expansion amongst our foreign imitators and competitors on the Continent or in America. Considering the absence of significant contemporary competition, our growth hadn't needed to be dramatic since progress was sufficient, given modest population increase, to effect a noticeable rise in living standards. This was undoubtedly our greatest advantage - of being the first in the field of global industrialisation - which was certainly sufficient to maintain the lead throughout the next century until challenged, and then overtaken, by Germany, America, and other emergent nations which were by then depicting similarly spectacular rates of growth *(but especially more so, nowadays, in the Far-East!)*.

- PRINCIPAL SOURCES . . . *used in this Paper*

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