

Poverty, Progress, and Population. *By E. A. Wrigley.* New York: Cambridge University Press, 2004. xiv + 463 pp. Tables, figures, bibliography, notes, index. Cloth, \$75; paper, \$28. ISBN: cloth 0-521-82278-5; paper 0-521-52974-3.

Reviewed by Jane Humphries

This collection of Tony Wrigley's essays illustrates his contributions to economic history, urban history, and historical demography. One hallmark is Wrigley's familiarity with the classical economists Adam Smith and David Ricardo, less so with Karl Marx, but most importantly with Thomas Malthus. Classical economics underpins one of Wrigley's major themes, the limitations to growth in an economy dependent on organic resources, and is used to develop an understanding of European economies (particularly the English economy) before industrialization.

In the classical world, land was the source of the material products needed to satisfy the basic needs that dominated demand. The raw materials to produce clothing and shelter, and energy for heating and manufacturing, were either vegetable or animal. Even where mineral raw materials were employed, they were capable of conversion into a useful form only by burning a vegetable fuel. Much the same was also true of the sources of mechanical and heat energy: human and animal muscle and wood were the preponderant means by which raw materials were converted into useful products and transported to places convenient for their subsequent use or consumption. Therefore, the productivity of land set limits to the scale of industrial output no less than to food availability: these two great demands were necessarily in competition for a resource in fixed supply. Moreover, as both Malthus and Ricardo emphasized, output from the land was subject to diminishing returns. For Adam Smith, division of labor, exchange, and improved transportation provided sources of growth in the traditional economy. But because specialization in agriculture had limited potential to raise productivity, in the longer term Smithian growth inevitably ground to a halt. The limitations to growth in the organic economy, difficult as they are to comprehend from the vantage point of today's reliance on mineral raw materials and energy sources, structure Wrigley's economic history and have powerful ramifications for his urban and population history.

The first three chapters lay out the limitations to growth endemic to reliance on organic resources. “Negative feedback” captures the way in which each resource hurdle overcome by the organic economy makes further progress additionally difficult. But when Wrigley relates the formal framework to actual operation of an economy, the historian comes to the fore. There is no fancy cliometrics or formal testing of hypotheses derived from Smithian growth. Instead, through a series of everyday examples, the mounting demands on land caused by economic expansion in an organic economy are brought to life. Von Thunen’s horses munch up 12 percent of the grain sent to market in Rostock as they transport it. A Norfolk farmer’s cattle walk off £600 of their fat per year on their way to slaughter. Sustained and substantial growth required an escape from dependence on the annual produce of the earth for supplies of raw materials and energy, and a shift to mineral sources for raw materials and energy accompanied by the large-scale deployment of capital in their extraction and supply. This is Tony Wrigley’s distinctive vision of the Industrial Revolution.

The second group of essays explore escape from the organic economy in terms of changing occupational structure. While Wrigley’s work on the defects of the censuses of 1831, 1841, and 1851 is widely known, it is worth rereading for its debunking of enduring myths about the effects of industrialization on the labor force. Students remain surprised to read, for example, that in the first half of the nineteenth century far more people were still engaged in traditional occupations as carpenters, tailors, or butchers than in the “new” occupations provided by factories, and that employment in the more established trades was still increasing. Further surprise follows the news that employment in such occupations was spread remarkably evenly across the country and over towns and countryside, and that despite the rapid growth in employment in occupations associated with factory industry and international markets, employment in services grew faster than secondary employment at midcentury. Wrigley’s account can be fitted into recent revisionist historiography of industrial organization, which emphasizes the persistence of small-scale traditional units of production, not to mention the revised metanarrative of industrial evolution rather than revolution. Interested readers will anticipate with excitement the findings from Wrigley’s current research (with Leigh Shaw-Taylor), which pursues occupational structure back into the eighteenth century.

The final topic in the first section is poverty. Chapter Six reconsiders a short essay by Malthus on the high price of corn in 1800–1801, where, it is suggested, he anticipated Amartya Sen’s influential argument that famine can be caused by either food-availability decline or entitlement failure. Malthus is defended against a reduction of his views to “the positive check” of famine and disease on rapid population growth. He is seen to have tempered his principled opposition to the English Poor Laws by recognizing their redistributive role and to have embraced in maturity the view that “prudence” held wider sway than he had once thought, with guardedly optimistic implications for future prospects. Subsequent essays use the central analytic conception of the organic economy and its constraints to predict urbanization and provide a useful complement to the study of occupational structure.

Turning to historical demography, the essays reproduced here are no substitute for the two volumes of population history produced by Wrigley and colleagues in Cambridge, in which millions of entries extracted from a sample of parish registers were aggregated and combined skillfully to reveal not only trends in population totals but also other key demographic variables like life expectancy, age-specific mortality, and gross reproduction rates. How could they be! But whereas the first two sections of the book provide a good overview of Wrigley’s distinctive view of economic and urban history, the essays on population zoom in to rebut criticism of, or iron out creases in, a bigger story, which, unless the reader is already *au courant*, remains obscure.

The bigger story of course involves one of the most dramatic turnarounds of conventional wisdom in recent economic history. Before the publication in 1981 of *The Population History of England, 1541–1871* by Wrigley and R. S. Schofield, preindustrial societies were assumed to balance the high birth rates resulting from early and near universal marriage by high mortality in periodic crashes into resource constraints as darkly outlined in Malthus’s positive check. But the vast amounts of empirical evidence collected by Wrigley, Schofield, and later collaborators suggest instead that “accommodation between population and resources was secured not by sudden, sharp mortality spasms, but by wide, quiet fluctuations in fertility” (Wrigley and Schofield, 1981, p. 451). In turn, those wide, quiet fluctuations were the result of changes in age at

marriage and in the proportions marrying in response to economic conditions. The preventive check was preeminent.

The distinctive population history provides missing pieces in Wrigley's overall vision—the low-pressure English regime contributing to the country's relative success in developing within the constraints of an organic resource base—and ties in neatly with Wrigley's rereading of Malthus, which highlights his mature reconsideration of the prudential check. Furthermore, empirical criticisms, even if valid, have been shown to be of second order of importance. But doubts do remain about interpretation and explanation within the broad empirical contours established. Some of these go back to the original reviews of *The Population History of England*, including warnings about the dangers of circular reasoning, which held that population growth determined the course of real wages and the course of real wages determined nuptiality and, derivatively, fertility and population growth. More recently, John Hatcher (in *Past and Present* [2003]) has presented a multipronged critique, suggesting first that different subperiods of the early modern period had different characteristics and cannot always be interpreted as moderate prudential regimes; second that fertility was not always the variable that adjusted, and particularly that it is wrong to see fertility as dominating mortality; and third, that the close positive link between nuptiality and real wages is not always evident. The Wrigley-Schofield-Malthus model's insistence on men's real wages as the key economic determinant of marriage had stirred the opposition of other historians, particularly those who emphasized structural changes as transforming the foundations of family incomes and looked therefore to the proportions proletarianized or the spread of protoindustry as conditioning men's and women's decisions to wed. Feminists too expressed disappointment that women's economic alternatives to marriage were ignored, especially as it was their age at marriage that influenced fertility. The essays reproduced here underline the empirical and technical authority of the demographic work but ignore these interesting conceptual debates. Ironically, perhaps it is the training and approach of the economist, both so important to Wrigley's achievements, that forbid a more historicist account of demographic events.

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