

Agricultural Revolution in England: The Transformation of the Agrarian Economy 1500-1850. By Mark Overton. Cambridge: Cambridge University Press, 1996, pp. xiv, 258. \$54.95, cloth. \$19.95 paper.

Had there been an agricultural revolution in England before 1850, this book would certainly be the place to learn about it. Though designed as a general survey for students, it is a work of enormous scholarship which presents the latest thinking about the agricultural revolution in England in an accessible form, well illustrated with tables and figures. The nature of pre-industrial agricultural technology, the legal and institutional background, productivity movements, and the sources of technical change are all covered.

Because the book is designed for students, footnotes have been dispensed with. There is, however, an extensive guide to further reading and bibliography, so the book serves well as an introduction to any of the specific issues of agrarian history.

The concept of the agricultural revolution has been with us since at least the 1880s, when it was popularized by Toynbee and Lord Ernle. Since then almost all respectable economic historians have insisted that an agricultural revolution, meaning a rapid growth of land and labor productivity, was a key element of the Industrial Revolution in England. Yet there has been violent and continuing disagreement as to what caused the agricultural revolution, and indeed when exactly it occurred. The early story emphasized "Great Men" - Tull, Townsend, Young and the like - who pioneered new techniques, which succeeded only once the common fields and the recalcitrant peasantry were swept away. The great men have been shown to be self-publicizing midgets, and all subsequent accounts have been of incremental changes, carried out by a

broad swath of farmers across a broad sweep of time, and dissociated from specific institutional innovations. Unlike the Industrial Revolution the agricultural revolution, it turns out, is visible only from a distance, not up close.

Mark Overton does an excellent job in both describing the background of the Tower of Babel that the agricultural revolution has become, of setting out some of the technical and institutional background needed to understand this debate, and in attempting to mediate between the discordant voices. A brief introductory chapter summarizes the history and sets out the definitions he will employ. There follows a longer chapter which paints a picture of farming in England as it was in the sixteenth century before the agricultural revolution. In the third chapter he gets down to the meat of the matter, a long discussion of output and productivity in agriculture from 1500 to 1850. The problem is that there are no direct figures on output or inputs between 1500 and 1850. Instead there are a variety of proxies for yields, labor productivity, and overall productivity: the food demand implied by population and income, and yields implied by the valuation of crops in probate inventories being the most important. There are also proxies for labor input: estimates of the input output relationship under traditional techniques, and estimates of the share of the population in agriculture. Finally overall productivity can be estimated from input and output prices which do exist in abundance at least from 1600 on. In a detailed, and I fear for many students potentially tedious survey, Overton concludes that the evidence supports an agricultural revolution concentrated in the years 1750 to 1850, but with slow but steady productivity advances in the previous century or so. He thus adjudicates in favor of the picture of the agricultural revolution favored by Nick Crafts, and by Bob Allen in the recent Floud and McCloskey

volume.

But when it comes to explaining why the years 1750 to 1850 would experience fast growth of output Overton concludes rather weakly “The reasons for increases in output and land productivity are considerably more complicated.....land reclamation, changes in the ration between pasture and arable, a reduction in fallows, the cultivation of fodder crops, changes in the mix of food crops, and regional specialization were all responsible” (p. 131). As for labor productivity, “Labour productivity increased without conspicuous technological innovation...the explanation...must lie with institutional factors” (p. 132). In the next chapter Overton turns to these institutional factors, specifically the rise of the free market, the elimination of common land, and the rise of the rural proletariat. But though he gives a nice discussion of these institutional changes, he never explains how these changes would increase in labor productivity. As before the agricultural revolution is clear from a distance, but invisible and mysterious once we are in the fields and smell the earth.

I believe that the reason revolution is strangely invisible close up is that it did not exist. Indeed a little arithmetic, mainly using the numbers of the book, shows convincingly that from 1700 to 1850 English agriculture was in reactionary torpor, not revolutionary excitement. The value of inputs in agriculture, principally land rents and wages, has to equal the value of outputs. The table below shows the value of output, of wages, and of land rent and tithe in England in 1700 and 1850 in current prices, assuming that total output increased by 165%, and output per worker by 100% as Overton estimates (p. 86). In 1850 wages were about a third of output, but if Overton’s estimates of productivity movements are correct, in 1700 wages exhaust nearly the entire value of

the product.

	1700	1850
Total output	£17 m.	£96 m.
Wages	£15 m.	£33 m.
Land rents and tithe	£17 m.	£39 m.
Rent and wages as a % of output.	188%	76%

The reason is simple. On Overton's estimates, the number of workers per acre in 1700 is three quarters of the number in 1850. Given that using the wage index in the book they were paid about three fifths the money wage of 1851, the wage payments per acre in 1700 are 85% of the value of output. When we add in rent payments, workers and land owners alone receive almost double the total product, even before we add the return on farmer's capital, and farmer's managerial profits. This same contradiction lies unrecognized at the heart of Crafts and Allen's account of the agricultural revolution as well. There is no way to have an agricultural revolution of any magnitude between 1700 and 1850 and avoid such a paradox. The pre-industrial agricultural revolution, if it ever occurred, took place before 1700.