

The Field and the Forge: Population, Production, and Power in the Pre-industrial West. By John Landers. xiv + 440 pp. Oxford: Oxford University Press, 2003. Tables, figures, appendix, bibliography notes, index. Cloth, \$80.00. ISBN: 0-199-24916-4.

Reviewed by David Nicholas

John Landers's analytic framework is provided by Anthony Wrigley's contrast of "organic economies," in which goods and services are generated by muscle power and are produced from energy sources on the land (the "field" of his title), with "mineral economies" (the forge). The "organic economy" is associated with low productivity, population density, and functional and occupational differentiation; rare use of money; rudimentary public and private credit facilities; and such high poverty rates that little demand is generated except for necessities. Patterns of spatial distribution are affected by poor communications and low productive capacity. Landers has trouble fitting the water mill into his claim that sources of energy were plant based, saying (p. 51) that its use was exceptional, even though he admits that about six thousand of these structures are documented in England alone in the late eleventh century.

Landers associates the transition from organic to mineral economies with the "gunpowder revolution." While rulers who predated gunpowder could achieve reasonable control of "geographic space," they usually lacked the means of extending their grip over "demographic space" and economic resources. Thus, while rulers of well-organized states such as the Roman Empire could achieve military control over the large areas on the peripheries of Europe occupied by "stateless peoples" (p. 232), before the gunpowder revolution no prince had sufficient force to make a large-scale and lasting alteration of the political geography of the European heartland. Firearms, combined with larger armies whose growth outstripped the pace of overall population rise in the early modern period, made possible the development of large territorial states. However, I have trouble reconciling this cause-and-effect analysis with Landers's admissions that, until the early nineteenth century, firearms were slow firing and inaccurate and that the productive base of the nonmilitary aspects of the economy remained organic (p. 173). The shift from organic to mineral energy can explain weapons changes, and demographic growth can

explain the size of the armies, but how can the real revolution in military effectiveness, which he attributes to improved organization and training, be a result of the transition from organic to mineral?

Landers seems oblivious to the role of the civilian bureaucracy in the consolidation of state power. He ignores Thomas Ertman, *Birth of the Leviathan: Building States and Regimes in Medieval and Early Modern Europe* (1997), which like Landers's book ascribes fundamental importance in the development of the modern state to the military changes of the late Middle Ages and early modern period, but does so from the standpoint of institutional state structure rather than environmental constraints on military efficacy. This and other works have shown that the taxes that were instituted to pay for warfare tended to remain on the books in peacetime and gave a financial basis for state consolidation. Use of recent works showing the enormous increase of royal taxation in fourteenth-century France and England would have prevented Landers from saying that "the principle of public taxation was increasingly accepted in the course of the early modern period" (p. 367).

Landers tries to go beyond military history to provide an analysis of the limitations imposed on the broader economic and social fabric by reliance on "organic sources of raw materials and energy" (p. 378). Yet, except in Part I (of four), he confines his analysis of technological development almost exclusively to military applications, and he encounters problems of logic and fact when he tries to extend his model to the civilian economy. His reading on medieval military history is up to date, but his knowledge of the medieval economy is not. He appears unaware that population densities in many parts of Europe before the late medieval plagues were not reached again until the nineteenth century. The urban network of medieval and early modern Europe figures only briefly in Chapter Five and is vitiated by Landers's opinion that the cities traded only luxuries. He appears utterly unfamiliar with the vast scholarly literature on medieval urbanization. Landers' analysis of credit concerns only the rulers of territorial states and does not consider the sophisticated urban credit markets and means of transferring goods and obligations that characterized medieval Europe. In Chapter Five he glosses over evidence for an enormous local and long-distance medieval trade in foodstuffs, which shows that the agricultural technology of the time was producing a surplus sufficient to sustain a

network of cities. The distributive functions of the great medieval fairs and of the German Hanse, which linked the industrial cities of the Low Countries, the wool and cloth trades of England, and the grain production of eastern Europe in a vast credit-based network, are never mentioned; they alone show the fallacy of Landers's thesis about the productive limitations of the organic economy. After listing the innovations in agricultural technology associated with the medieval period, he concludes that "the chronology of these inventions is puzzling, since it does not coincide with the advance of civilization as generally conceived" (p. 71). To me, this simply shows that Landers is too bound to his models to accept the meaning of fact when it contradicts them. His assertion (p. 7) that the poor could not afford heat-produced products until the modern period betrays his ignorance of Rolf Sprandel's *Das Eisengewerbe im Mittelalter* [The Iron Industry in the Middle Ages] (1968). Landers's book is based entirely on secondary sources and the documents analyzed therein: his bibliography has no works in German, Italian, or Dutch, and only six in French.

Roughly two-thirds of this book consists of a lively, well-written, and often thought-provoking analysis of the potentialities and actualities of premodern military strategies, tactics, and logistics, drawn from practical cases. I suspect that it will be read widely. Were I reviewing it as a military history, I would give a more positive evaluation. Unfortunately, it does not substantiate the broader claims that Landers or his editors have made for it.

David Nicholas is Kathryn and Calhoun Lemon Professor of History at Clemson University. He is the author or editor of fifteen books on medieval Flemish, family, and comparative urban history, most recently Urban Europe, 1100–1700 (2003). He is currently working on a study of legal, political, economic, and cultural identities in northern Europe in the late Middle Ages.