

## The Field and The Forge

Peter Fleming

review of: **J. Landers (2003) *The Field and the Forge: Population, Production, and Power in the Pre-Industrial West*. Oxford: Oxford University Press. (PB, pp. 454, £25, ISBN 0 19 924916 4)**

This is a book about the natural constraints on human achievement. It is in many ways extremely ambitious, taking as its subject the economies and politics of Europe and the Mediterranean from ancient times to the 'Industrial Revolution' of the late eighteenth century. The author's main work previous to this volume has been in demographic history, with particular reference to London in the 'long eighteenth century', and demographics provides one of the two foundations of the present work, the other being agriculture, for at the heart of this is the balance between the land's productive capacity and population size, a balance always delicate, and often precarious. What characterizes this period, argues Landers, is its reliance on muscle power – of both humans and other animals – and on crop yields. In an 'organic economy' (a concept Landers borrows from fellow demographic historian E A Wrigley) where the extractive industries and the means of production based on them are in their infancy, and where chemical power is largely limited to military applications – gunpowder – human achievement is dependent on the ability to grow sufficient food to feed a given population. Just about everything else follows from this. The rise and fall of empires, the success or otherwise of states, can be explained, ultimately, by the organizational success in managing this brutally simple equation, and harnessing it for the purposes of the state.

Landers lays out his model systematically and with great clarity. He begins by examining such economies' constraints on productivity, distribution and spatial organization. Relative to the modern world, per capita low productivity, low levels of socio-economic specialization and high transport costs resulted in low levels of geographical concentration of economic functions, so that settlement was dispersed and cities were generally few in number. The central sections are then devoted to the practice and effects of warfare over this period. The justification for this focus is obvious: pre-modern states were organized to fight wars; warfare was the clearest expression of a state's ability to harness what potential productive power it had available; war was the political activity that made the greatest impression on society and

the economy; and a state's ability to fight wars was the crucial determinant of its success. Also, war was – and remains – the most important driver of technological advance. The organizational aspects of war – strategy, logistics, military commissariats and resourcing through taxation and recruitment – presented the greatest challenge to pre-modern political systems, and have provided modern writers on business and organizations with a happy hunting ground for historical paradigms and parallels (with not universally happy results, at least from the point of view of professional historians). The inescapable constraints imposed by organic economies set a natural limit to political ambitions. Landers makes much of the classic case of the Roman Empire, a uniquely successful political organization based on the effective exploitation of human and natural resources until imperial overstretch made empire first unprofitable and then an unsustainable drain on resources, but there are plenty of other examples of ambition tempered by economic reality. Early-modern states, such as Louis XIV's France, were able to support the increasingly large armies through the ruthless exploitation of their peasantry, but this was only possible through the threat and use of military violence against the recalcitrant, thereby stoking a vicious cycle of taxation and growth in military spending.

At some levels military spending stimulates economic growth, but the diversion of resources to unproductive activity, and the destruction wrought by ever-more effective means of killing, have in themselves acted as serious constraints on economic development. The decisive stage in the long dance between resources and military ambition came with the widespread adoption of gunpowder weaponry. Landers neatly summarizes the historical debate over the 'military revolution' (basically one between proponents of a short sharp paradigm shift and of punctuated equilibrium in military tactics, strategy and organization) and traces some of the implications of a shift from muscle to chemical power in the arts of killing. When tactical success depended on individual strength and skill with the sword, spear or bow, there was a clear limit on the number of effective combatants a state could field. At particular moments particular regions produced specialized troop types which could have major local impacts on war-fighting, classic examples being the later medieval Anglo-Welsh longbowman and the Swiss pikeman, but the peculiar demands of these 'ethnic' fighting styles precluded their widespread adoption, so military revolution was repeatedly postponed. With the arrival of firearms, which with a minimum of training and the right tactics could be used effectively by less impressive physical specimens, mass recruitment – or conscription – made military sense. From this followed the spectacular expansion in the size of armies and navies, the prolongation of campaigns, the increasing sophistication of logistical systems and the massive growth of the bureaucracies of command, supply and appropriation. For the first time, the West achieved tactical and strategic superiority over the East, and the European 'Age of Empires' laid the foundations – at the muzzles of many guns – of what has now come to be known as the Global Economy. In short, it was Bellona who gave birth to the modern state.

The modern state, bureaucratic and skilled in the appropriation of surpluses of production for its own defence and expansion, thus predated the modern economy, based on chemical power fuelled by the extractive industries. It was probably no coincidence that the state most adept at the former was the first to develop the latter. Great Britain, having carved out a trans-Atlantic empire through domination of the seas,

gave birth to the modern economy, based on coal and iron. Here, Landers' story comes to its natural end, for it was with the 'Industrial Revolution' (and once again, historians argue over the nature – and sometimes the very existence – of this concept) that the dialectic of production and power experienced an unprecedented paradigm shift. The old tyrannies of time and space were broken by coal. Steam-powered transportation solved the problems of spatial integration, allowing for the concentration of functions and resources in big cities; coal allowed the new urban populations to keep warm without complete deforestation. Steam-powered production provided plentiful supplies of iron and, later, steel, stimulated demand and created a consumer society. Why this should have happened first in the British Isles is of course down to many factors, and abundant supplies of easily accessible coal is of course of great importance among them, but when it comes to explaining why the breakthrough occurred in north-west Europe rather than anywhere else Landers turns back to demography. The North-West European marriage pattern was characterized by relatively late marriage and small families. It was expected that married couples would live in separate households from their parents, and to fulfill this meant waiting until sufficient resources had been accumulated before marrying. This provided a work force of both young men and women, and the reduced period of fertility meant that surpluses were not entirely consumed by large numbers of children. Agricultural regimes also contributed: grain-based economies were less labour-intensive than those based on rice, thereby freeing up cultivators for other economic activities.

It is a sobering thought, that however hard life was for the average pre-modern European cultivator, and however dreadful the recurrent famines, things were worse in many other areas of the world. Britain – and particularly England – it can be argued, diverted less of its surplus agricultural production into aristocratic conspicuous consumption than other parts of Europe, thereby allowing for greater agricultural investment. Capitalised agriculture, and the capitalist mentality of accumulation and investment, was apparent in England by the later Middle Ages, and this region's 'agricultural revolution' was of course a necessary precursor to the 'industrial revolution'.

Landers' model, based on the synthesis of a wide range of secondary work, is persuasive, and provides a useful conceptual framework within which to locate smaller-scale studies based on empirical, archival-based research. Historians will find little here that's new in their own areas of specialism, but will value the clear overarching framework. Some might feel disquiet at what they may see as Landers' determinism. There seems little scope in his world for the influence of individual action, or indeed, for ideologies and abstract ideas. Renaissance and Enlightenment find no place in his story. Political acts are successful if they abide by the inescapable imperatives set by demography and technology; if they don't, they are bound to fail. No one man or woman, from Nero to Napoleon, can do anything to buck the system. This demographic and economic 'double predestination' may stick in the throat of the more 'humanist' historian, and can smack of reductionism, but seen in the large perspective of this book it seems inescapable.

And, of course, while we may have broken free of the particular set of constraints which Landers associates with the 'organic economy', it would be naïve in the extreme to read

his book as a celebration of our own success. Pre-modern states and economies were faced with the problems of sustainability in terms of maintaining a balance between resources, population and political ambition. Today the elements in the balance are different, but the problem of sustainability has moved from local and regional to global, and the stakes are higher. Landers' notion of history driven by underlying forces over which individuals have little or no control does not make comfortable reading. Pre-modern economies were forever bumping up against the constraints of muscle power and unsophisticated agriculture. Modern economies long ago removed most of those constraints, only to find that the promised unrestrained expansion has met with immovable ecological boundaries, and the grim balance between agricultural productivity and population is as tragically apparent in the developing world as at any period in history. So, this book, dealing with sometimes distant historical periods, encourages informed reflection on the dilemma at the heart of modern existence. Pre-modern political and economic elites may have occasionally been able to convince themselves that they controlled their own destinies, but this was a delusion; it may be that the evolution of the chemical and electronic economies has allowed us to control ours, but, as this book shows, if so this would be for the first time in human history.

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