
REVIEWS OF BOOKS

E.L. JONES, *The European Miracle, Environments, Economics, and Geopolitics in the History of Europe and Asia*. Cambridge: Cambridge University Press, 1981. Pp. xi, 276.

Here is macro-history written large—very large—both in the geographic breadth of its coverage and in the depth of its probing through time. Indeed, Professor Jones sets for himself the task of explaining “how Europe achieved and sustained economic development that led to industrialization—by definition a unique case...” He begins his story with Mesolithic Age (Middle Stone Age, about 10,000 B.C.) but gives most of his attention to the period from 1400 to 1800 A.D. He seeks his explanation in the complex of the physical, climatic, demographic, and political environment which created and developed a market system. “Industrialization came first in market economies where not only products but factors of production might be freely bought and sold.” (p. 225).

Jones does not seek to create a historical “model” of economic growth but his text is full of significant generalizations. He stresses the importance of geological, climatic, and topographical resources; the relatively high income per capita in economies which did not maximize the number of people; the development of long distance trade in staples rather than in baubles; political arrangements which did not destroy by taxation the geese which could lay golden eggs; and protection from invasions. Europe had advantages in all these aspects and in addition, with the expansion overseas after 1500, obtained resources and distant trade which gave it an enormous lift.

To set Europe's special factors for growth in sharp relief, he compares

them with conditions in India, China, the Middle East, and Africa. Even for me to suggest the highlights in these comparisons would exceed the space permitted to this review, but they are eminently worthwhile for serious study.

Enough has been said to convey the point that this work is a real *tour de force*. Obviously it required the mastery of an enormous body of literature. So far as I am acquainted with them, I can assure the reader that the author has chosen his sources well. He is familiar with the most up-to-date and authoritative works about the areas and arguments with which he is concerned. Moreover, he has produced a monumental synthesis—his story is told in less than three hundred pages. Again, the adage that “all masterpieces are short” has been confirmed.

The book does have one serious flaw. The author's style is not elegant, and the discourse is continually interrupted by using “an author-date system of reference,” that is, he refers within a sentence to an author and the date of his work when he makes a point. For this procedure, he apologizes, on the ground of keeping costs down. With this goal, I sympathize, but his work is too valuable to carry such a handicap.

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H. KELLENBENZ. *Deutsche Wirtschaftsgeschichte. I Von dem Anfangen bis zum Ende des 18. Jahrhunderts. II Vom Ausgang des 18. Jahrhunderts bis zum Ende des Zweiten Weltkrieges*, Munchen, C.H. Beck Verlag, 1977-81, pp. 412 + 544.

The second volume of Herman Kellenbenz's *Deutsche Wirtschaftsgeschichte* was published just as the author retired from his university teaching career. The two events were no coincidence, and this 'Economic History of Germany' represents a summary of the author's thirty years of teaching in Germany's most prestigious universities and the fruits of his own researches in the field of economic history. It is no exaggeration to say that much of the output of German economic history in recent decades has, at least for the foreign observer, been closely associated with the impassioned, intelligent, and unchallenged work of Herman Kellenbenz. His *Economic History* is the product of a long apprenticeship and mature reflection on both domestic and international problems. Few other German scholars have tackled so wide a range of problems relating to Germany's pre-industrial, and even industrial, economic history. No-one, therefore, could be better fitted to write a general text-book of this calibre.

But the *Deutsche Wirtschaftsgeschichte* is not only the definitive interpretation of an outstanding scholar at the peak of his professional maturity, it is also a highly courageous work. It is not a contribution to a historiographical desert, but rather to a very distinguished tradition of general studies on the German

economy which began with W. Sombart and A. Sartorius von Waltershausen, was continued by F. Lütge and H. Bechtel, and extended more recently by the work of H. Aubin and W. Zorn, W. Treue and F.W. Henning. But even amongst such distinguished company, Kellenbenz's study is remarkable not only because it is the most up-to-date, but also because it is the most open to other styles of economic history, to both the French and Anglo-Saxon approaches and also to the Italian tradition with which Kellenbenz is well familiar. What one might call the 'trial run' was *The Rise of the European Economy. An Economic History of Continental Europe 1500-1750* (London 1976) which demonstrated the author's mastery over the empirical details of European economic history and also his ability to draw on other historiographical schools and graft them on to the German tradition, which had in the past been deeply adverse to straying far from the study of 'facts'. The same approach is evident in the *Deutsche Wirtschaftsgeschichte*, which demonstrates in the clarity of its general organization and its approach to specific branches of the economy the influence of many of the most recent developments in the study of economic history. The author successfully blends these external influences around the corpus of the German economic history tradition, which can claim to be one of the oldest and richest in international terms.

It is hardly necessary to stress the problems posed by a history of the German economy which sets out from the beginnings, given the particular historical experiences of the country. It is a problem which has confronted every scholar who has attempted to write an economic history of the country. Kellenbenz's study follows, in broad terms, a chronological framework, although this is more evident in the first of the two volumes. The first volume covers Germany's economic history from the beginning to the XVIIIth century, dealing in turn with the prehistoric era; the Roman era; the early Middle Ages; the late Middle Ages (from the XIIth to the XIVth centuries, and then from the Black Death to the close of the XVth century); the XVth century to the Thirty Years War; the Peace of Westfalia to the French Revolution. Within each chronological periods, the author examines individual sectors of the economy, except in the case of the prehistoric and Roman eras when the discussion is inevitably more general. Each sector is then related to the whole, not in terms of the traditional categories of primary, secondary and tertiary activities, but in relation to their relative importance in each of the periods discussed. This enables the author to identify easily the 'leading sector' in a given period. Although the areas covered are delineated by 'historical Germany', the author does not attempt to treat all of these in the same detail but rather to indicate which regions, like the different branches of the economy, played a 'leading role, at a particular moment, or else typified the processes of economic growth in the country as a whole.

In the periods after the later Middle Ages the scope of the analysis becomes much broader, and particular attention is devoted to the role of public

administration in the evolution of the economic life of the country. While drawing attention to the political differences that divided city from city, city from the State or the Empire, state from state and Germany from the rest of the world, Kellenbenz is equally concerned to show the economic ties that bound these different units together, thereby creating a lowest common denominator of German needs and interests around which were to develop the economic policies of the greater and the smaller German states.

In the second volume, although there is a similar chronological framework this is over-shadowed by sectoral analysis. The volume covers German economic history from the end of the XVIIIth century to the close of the Second World War and is organized in three large chapters dealing respectively with the period from the French Revolution to the founding of the German Reich; from 1870 to the First World War; and to the end of the Second World War. Each chapter is organized around an analysis of the different economic sectors. In each he deals not only with the conventional sectors of economic activity (agriculture, artisan manufacture, industry, transport, commerce, credit and public finance) but also those that are often overlooked – for example, the economic theories that prevailed in each period, liberalism, socialism, nationalism and capitalism. Considerable space is also devoted to the 'social problem' (*Gesellschaftliche Strukturen*), to the relations between the state and the economy, to demographic expansion, scientific and technological development.

There is no key theme that emerges from the first volume, and Germany's political fragmentation was deeply reflected in its economic organization. The author studies the different economic developments in that period, identifying cause and effect, but without indentifying any one single event or course of events as being of over-riding importance, other than the growth of the burgher economy of the pre-unification German cities. In the second volume, however, industrialization provides a clear unifying theme, and it is around this process that Kellenbenz reconstructs Germany's economic history in the XIXth and XXth centuries. The country's political lacerations in the course of two world wars are seen by Kellenbenz essentially in terms of the destruction of its economic structures, especially its industry, although this never prevented Germany playing a central role in the economy of Europe. With a population that had grown from 40 millions in 1870 to 70 millions in 1939, its demographic weight alone could not but deeply condition the rest of Europe. The Second World War and the subsequent division of the country could only partially hamper the traditional and deeply rooted process of industrialization and growth, and this was why after the war, although mutilated in part, Germany came to resemble an earth-worm that although cut in two was quickly able to rediscover sufficient energy and resources to carry on independently.

We have deliberately limited ourselves to commenting on the methodology of Kellenbenz's work without entering into the detailed analyses that fill over a thousand pages. Although there is a mass of data and figures in the text,

there are relatively few tables and graphs, but it is never the case that the words are swamped by figures. For both periods the volumes are accompanied by extensive bibliographies, and a valuable index of names and sources. There can be no doubt that this is a textbook which combines all the qualities already mentioned with those of ease and vivacity of reading.

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P.L. PAYNE, *The Early Scottish Limited Companies, 1846-1895: An Historical and Analytical Survey*. Scottish Academic Press, Edinburgh, 1980, pp. xii, 140.

Peter Payne presents here the results of an exercise in what he calls "institutional demography" — compiling the vital statistics of a population of joint stock companies registered in Scotland under the Limited Liability Act of 1856. He has used the computer effectively to analyze the abundance of materials contained in reports which companies filed annually in Edinburgh. What emerges from the study is a collective portrait of 2,625 limited companies formed between 1856 and 1895, which had been dissolved by 1970. The author had intended to investigate the files of the first 5,000 companies registered in Edinburgh after 1856, the same number involved in H.A. Shannon's earlier study of London-registered companies. Unfortunately, the exhaustion of research funds compelled him to settle for fewer cases, although he suspects that inclusion of data on the 311 companies formed prior to 1895 and still in existence in 1970 would not alter the results of the study in a major way.

One can only point to some of the features that stand out in Professor Payne's statistical portrait. Scottish business was slow to adopt the joint stock company form under the 1856 act, initially using it mainly for public utilities and shipping. This situation changed with the economic boom of the early 1870s. The use of the limited company for overseas investment, especially the cattle ranching craze in North America, has received considerable attention from historians. But for the history of Scottish business, this episode was far less important than the steady intrusion of the limited company into almost every branch of economic activity in Scotland by the mid 1870s, with companies in coal mining and iron making taking the lead. In comparison to the £2 million of funds invested in land and cattle in the American West from 1880 to 1885, the aggregate paid-up capital in Scottish companies engaged in manufacturing rose during these years from £4.6 million to £8.4 million, and investments in public utilities also almost doubled to £5.3 million. By the early 1890s, over £50 million had been invested in the shares of Scottish limited companies, in addition to £100 million in domestic railway companies, which Professor Payne regards as "no mean performance by the Scottish economy". Manufacturing (most of it in Scotland) accounted for about 40 per cent of the

non-railway investment, public utilities (including shipping) for 20 per cent, mining and quarrying for 14 per cent, finance for 9 per cent, and agriculture, forestry, and fisheries (much of it foreign) for 8 per cent.

The most important industrial incorporations represented conversions from partnerships, stimulated variously by a need to raise more capital, a desire of owners to retire from active participation in the firm, and a wish to reduce personal liability. In most cases, however, conversion of an industrial enterprise from partnership to limited company meant only a change in legal form, not in ownership and management, as former partners remained in control. As Professor Payne points out, "the greater flexibility and infinitely greater security of the limited liability form of business organization was instrumental in consolidating, enhancing and diversifying the power of a relatively small group of men." (p. 73) But he is quick to note that the interlocking of interests of Scotland's "economic aristocracy" was only facilitated, not created, by the advent of the limited company, since these interests had been able to exercise a considerable measure of economic control in the days of the partnership.

How significant was the limited company in the process of capital formation in Scotland? Professor Payne recognizes that his data do not permit him to make precise measures of the relationship between called-up capital and real investment by these companies. But, going beyond his data base, he is willing to conjecture, for the United Kingdom as a whole, "the possibility that in the last quarter of the nineteenth century appreciably less than 10 per cent of real investment was financed through new issues on British stock exchanges by mining and manufacturing companies and public utilities, and that of this figure the proportion raised by new companies may have averaged between a half and two-thirds" (p. 95). Nevertheless, Professor Payne argues, the limited company did play a significant role in capital formation, at least indirectly; new enterprises could more readily raise original capital privately because of the potential of later public sale of securities.

Professor Payne also has something meaningful to say about the relationship between size of firm at birth (as measured by amount of paid-up capital), on the one hand, and length of life and rate of growth, on the other. He finds that the size of the firm at birth had "a negligible influence" on its life expectancy. Other factors, including focus of the firm's operations, quality of its management, and general economic conditions, had more important effects in determining the length of life of a firm. At the same time, amounts of initial capital did not determine the growth rate of incorporated firms. Indeed, he notes that his findings may support "the apparently implausible assumptions of Gibrat's law of proportionate effect" — i.e., that growth and decline of the firm are unrelated to its size. (p. 104)

Throughout the book, Professor Payne makes useful comparisons of the characteristics of Scottish and English companies, showing the ways in which

the experience of Scotland differed from that of England. Scottish companies appear to have been smaller, to have lived longer, to have suffered less fraud and mismanagement, to have been controlled longer by their founders, and to have earned a slightly higher net return for shareholders. Certainly, these observations call attention to the need to include the Scottish experience in any generalizations about British business.

To some readers, Professor Payne's decision to exclude from his analysis the 311 companies registered before 1895 but still in existence in 1970 may impose some limitations upon the usefulness of his findings. However, more readers will likely welcome the author's willingness to apply his extensive knowledge of Scottish business history to interpret the statistical data—in short, to make the statistics speak intelligently.

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A. J. RIEBER, *Merchants and Entrepreneurs in Imperial Russia*, University of North Carolina Press, Chapel Hill, 1982

Planned as a preliminary study for a work on politics and industrialization in imperial Russia, this book turned into a monumental, though admittedly not definitive, study of the Russian merchant *soslovie*. Assisted by generous grants and opportunities for research and writing, drawing on Russian sources and secondary studies in Russian and English — though omitting the rich German materials on the subject — the author has made a significant contribution to Russian social history from Peter I to 1917. He focuses on the Russian merchants and entrepreneurs occupying “the intermediate social structures that exist in the theoretical space between caste and class” (p. xx). His thesis is that being neither caste nor clan, merchants and entrepreneurs proved “the most unstable social group in the empire,” caught between the autocracy which imposed the forms of social organization upon its subjects and the dynamics of its own inner life. Shaped by the *soslovie* system evolved in the XVIIIth century, the merchants and entrepreneurs could not form a “socially cohesive and politically unified” class even when that system began to crumble toward the end of the XIXth century. They faced the challenges of the early XXth century — revolution, world war, revolution again as a fragmented lot, doubly disjointed by the social cleavages in Russian society and by incompatible regional and ethnic loyalties. They also lacked a broad overview, limited by their exaggerated sense of self-importance and their belief in Russian uniqueness. In their disunity they provided a paradigm of the overall decay of imperial Russia. The author's final words assert that “... behind the façade of industrialization, bureaucratization, and social reform that is, of modernization — another less visible process of social disintegration was taking place”.

Within his almost 450 pages the author displays a truly impressive array of data relating to Russian economic history administrative and legal codes, industrial and commercial policies; to business firms and business people in the key areas of the empire; to Moscow, municipal affairs and the Tretiakovs, Mamontovs, Morozovs and other families of great wealth; to the interaction of the merchants with members of other *sostoviia* and the government, with special emphasis on the years after 1905. He has also made novel contributions to the study of Russian nationalism, slavophilism, and the Old Believers. Specialists in many fields of Russian history will find this book a mine of useful and even necessary information.

If only the author had made it easier for his readers! His writing lacks the clarity for a complex subject. To give a few examples. Do "entrepreneurial groups" constitute "a mode of analyzing Russian social change" (p. 134)? Paragraphs too have gone astray. One (p. 135/6), beginning with the words "The Moscow Entrepreneurial group" and running on to Old Believers, nobles, old merchant families, makes the reader wonder to whom a subsequent "they" refers. Subsections likewise are disorganized. On p. 266 a headline of a new section reads "The Moscow Exchange Society Splits", but the details of the split crop up only on p. 310. Throughout, the author promises to discuss one subject but soon strays to another; organizational directions that might help the reader are lost in the welter of detail offered without discrimination between the important and the unimportant. The book's chronology too is perplexing; in a chapter dealing with the revolution of 1905 we are suddenly back in the 1890s. Surely this is the most confusing and mentally fatiguing book this reviewer has ever had to review.

In addition, one wonders about the author's interpretations and terminology. Part I deals with the evolution of the merchantry from Peter the Great to the beginning of the XXth century, the emphasis resting on its backwardness. Part II, dealing with the rise of the entrepreneurs and running over much of the same ground, conveys an opposite impression, stressing the progressive nature of the entrepreneurs. The entrepreneurs, however, never emerge with a clearcut image despite the author's efforts. As he points out, they were recruited from the nobility and a variety of merchant types. Yet in his conclusion he simply refers to them as a "small group of merchants" (p. 320). Obviously, the lack of a collective identity among this group, openly admitted by its members, spilled over into the author's terminology. In addition, the reader is never sure of the author's opinion of the merchants; sometimes he seems to think highly of them, sometimes not. A further ambiguity stems from his assertion that "by the turn of the century industrialization had weathered its transplanting from 'the hothouse' to natural soil" (p. 415). His account rather adds up to the contrary impression conveyed in his parting sentence: things were falling apart; industrialization had not really taken hold.

Vagueness also pervades the author's understanding of the larger contexts

of Russian history. The reader senses an unresolved desire to find culprits either in the autocracy and its bureaucrats or among the merchants themselves, including even the most progressive ones. What is missing is an overall view of Russian history which explains the shortcomings all around as a result of Russian backwardness under incessant pressure from the more advanced West. The problems of the Russian merchantry in particular would have become more intelligible if seen through the prisms of development sociology.

This work, in sum, represents the labours of a scholar endowed with admirable industry lost among the details; all the same, it does make a valuable contribution to the study of Russian society in the imperial era. Patient specialists will find most of the detail well worth knowing, while the generalists will be rewarded by the summaries contained in the introduction and conclusion. All will look forward to the learned author's promised work on politics and industrialization in Imperial Russia.

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E. SCHREMMER *Technischer Fortschritt an der Schwelle zur Industrialisierung. Ein innovativer Durchbruch mit Verfahrenstechnologie bei den Alpenländischen Salinen*, Munich, Verlag C.H. Beck, 1980, pp. 101

This study is concerned with the problem of technological development on the eve of the Industrial Revolution in the context — as the title suggests — of a well delimited geographical area, the Alpine salt mines near Berchtesgaden in southern Bavaria. The author is Director of the institute of Social and Economic History at the University of Heidelberg and already has a well established reputation as an economic historian on the basis of his excellent study of the Bavarian economy published some ten years ago (E. Schremmer *Die Wirtschaft Bayerns. Vom hohen Mittelalter bis zum Beginn der Industrialisierung. Bergbau, Gewerbe, Handel* Munich 1970), which focused in particular on the mining industries and the salt mines. On various occasions he has again taken up the study of the salt mines, first with a major study of the salt market in southern Germany (E. Schremmer *Handelstrategie und betriebswirtschaftliche Kalkulation im ausgehenden 18. Jahrhundert. Der süddeutsche Salzmarkt*, 1971) and then in an essay dealing with trading policies and salt in the Bavarian and Austrian states in the XVIIth and XVIIIth centuries (E. Schremmer, *Zwischen Konkurrenz und Kartell. Wechselwirkungen zwischen der österreichischen und der bayerischen Salzhandelpolitik im 17. und 18. Jahrhundert* in *Wirtschafts und Sozialhistorische Beiträge. Festschrift für Alfred Hofman zum 75 Geburtstag* herausgegeben von Herbert Knittler, Vienna 1979).

The present volume marks a further step forward in this exploration, after the studies of mining in Bavaria, of the salt trade in southern Germany and the policies of the Austrian and Bavarian authorities regarding the salt trade. He now turns his attention to the technical advances accomplished in the Bavarian

salt mines; a journey which has taken him from the general to the particular, but which is amply justified by the interesting problems that emerge from the production of this humble but essential commodity. The very varied functions played by salt in the pre-industrial economy are well known, and were equally important for producers of sea-salt and mineral salt. German economic history contains a wide bibliography devoted to this industry, as is evident from the extensive bibliographical apparatus in the present volume; there is even a specialist journal in German devoted to the history of salt mining.

The volume in question is divided into five chapters, the first providing a historical introduction to mining in the Alpine region; the second deals with investment in salt mining; the third assesses the results of these investments; the fourth analyses technological innovation and the fifth provides an appraisal of the effects of these innovations. It goes almost without saying that in the author's view these innovations played a central role in the development of salt mining. He also examines the significance of the technical progress achieved in the salt mines for the neighbouring economy which gravitated towards the mines. He also asks whether technological progress in this sector was more likely to occur in mines run under monopoly conditions or in those exposed to free competition, and he based his replies on a study of the mines of the Bavarian Alps, especially those of Berchtesgaden — in particular the Reichenhall and Traunstein mines, although he also draws comparison with the Habsburg and Salzburger mines situated in the same area. The chronological period covered is roughly the XVIIIth century with some reference to the early XIXth century.

Investments in the Reichenhall and Traunstein mines are studied in detail. He shows that salt was produced not only from the mines themselves but also from the copious supplies of salt-water springs near Reichenhall. The most important technical advances were related to production and the organization of labour. The result of the increased investments of the late XVIIIth century was a marked increase in output (rising from an annual average of 288,155 *zemtern* of 50 kg in the period 1770-82 to 392,944 in the years 1786-98 in both the Reichenhall and Traunstein mines), and also in the profits from the sale of salt — the net receipts of the Bavarian salt office rose from an average of 2,739,593 florins in the years 1770-82 to 4,999,401 florins in the years 1786-98.

The innovations in the mines were mainly the work of foreigners, who brought with them experience that the Prince Elector carefully sought out by enticements and privileges. This meant that the progress made in the salt mining industry was communicated to the rest of the economy of the state. Towards the end of the XVIIIth century the numbers employed in the salt mines began to increase rapidly, and this was of great importance in reducing unemployment in the Alpine districts of Reichenhall and Traunstein. The increased productive capacity of the mines quickly made them the leading sector in the Alpine economy in place of more traditional and less productive sectors.

As far as the effect of these advances on the surrounding economy is concerned, Schremmer's analysis shows clearly that they were of vital importance and provided a productive base in what was otherwise a poor economy, thereby achieving a leading function in this period before the dawn of the Industrial Revolution in Germany. Schremmer's study also suggests that technical development was more likely to occur in a free and competitive situation than under a monopoly — this did not necessarily demand a free market, but it did require a degree of freedom in the transmission of knowledge and expertise. When such freedoms obtained, then a monopolistic system often had the advantage of greater financial means and could implement new techniques even more effectively than a free market enterprise.

Schremmer's study is particularly valuable both for the new information it contains on the mining industry in the Bavarian Alps, and also for the wider questions which it poses and explores on the basis of this particular example.

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M. SCHWARTZ SELLER, (ed.), *Immigrant Women*, (Philadelphia: Temple University Press, 1981. x + 347 pp. Notes, bibliography, and index).

Immigrant Women is a reader intended for those interested in ethnic and women's history and, as such, is outstanding. It is a compact collection of unusually good literature, particularly autobiographies and short stories, plus a few scholarly articles. Forty-seven readings, some thirty-six of which pertain to Europeans are arranged in eight topical sections; "Work", "Family", and the like. Essays by the editor introduce the book itself as well as each section, while head-notes precede the individual selections. There is also a bibliographical essay. The introductions relate the themes of immigrant and women's history and are most valuable for providing examples beyond those in the readings, especially about groups that are sparsely represented such as the Irish, non-Polish Slavs, and Chinese.

The book's chief strength is the readings, or selections, which are rich and memorable. A well-edited version of Maxine Hong Kingston's "A Song for a Barbarian Reed Pipe" expresses more effectively than any other recent work the meaning for ethnic minorities of their cultural differences, or what she calls "the weight and immensity of things impossible to explain". Yet for those who might be tempted to overgeneralize, her story is juxtaposed (give or take 65 pages) with Monica Sone's "The Stubborn Twig", which offers an entirely different view from within of an Asian American language school and of the "noisy and tough Japanese Kids" whom the Chinese American, Kingston, describes.

The book should have been about ethnicity instead of immigration. It contains no selections about British immigrants after 1820 and even refers in passing to the physicians Elizabeth and Emily Blackwell as American-born (p. 94). In the same vein, an editorial by Amy Jacques Garvey shows no sign that she identifies herself as an immigrant but demonstrates instead that she considers herself, above all, as a black woman. Other readings suggest why such a problem may occur. Immigrants who grew to adulthood in another land have rarely written about their own immigrant experiences as eloquently as others have. Even in this exceptional reader we see them mainly through the eyes of novelists, their American-born offspring, or those who immigrated as children. Usually they appear dauntless and are often surprisingly oblivious to the painful clash of cultures around them. Not only time and population increase but the acuter sensibilities of the sociologists' marginal generations it seems, have made the United States culturally more a nation of "ethnics" than of immigrants.

For the same reason the effort to weave together immigration and women's studies slights the former. Nothing in the autobiographical excerpts presented indicates that "Social Activists" Sister Blandina Segale, Ernestine Potowski Rose, and Rose Winslow were immigrants. They just happen to have been so. Thus *Immigrant Women* reflects the unique ability of a good reader to convey an inadvertent message. In this case it is that sometimes a woman's immigrant origins were not important at all.

Although the book transcends most of its own shortcomings, it does have a major flaw. There is no section on religion to match those on "Education" and the "Social Activists". As Corinne Azen Krause's "Urbanization Without Breakdown" points out, religion was "the most important institution" and perhaps the major source of continuity for many immigrants (p. 68).

There are also lesser problems with time and chronology. When copyright dates are misleading, the head notes do not always reveal what years a selection describes. The poignant novel *The Joppa Door* (1937) was based on the recollections of an "elderly" German woman. But how elderly was she in 1937? Similarly Terry Coleman's account of conditions aboard a "nineteenth-century immigrant sailing vessel" appears amidst the section "Why They Came". Readers will need more precise information to infer which of the immigrants may have endured such a voyage. The collection's topical rather than chronological arrangement might also prove disconcerting to those interested in continuity and change. Stories about Jewish women cover successively an elderly Californian in the 1970's, poor garment workers, second generation social climbers, a Yiddish-speaking charity client, and then radicals and union organizers.

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J. STEVENSON, *Popular Disturbances in England 1700 - 1870*, London, Longman, 1979. Pp. 374 & vii. Index and Bibliography.

Popular disturbances have been one of the growth stocks of English history in the last two decades. Once anathematized by conservative historians and ignored by Fabian historians (for whom they constituted an embarrassment), English popular disturbances of the eighteenth and nineteenth centuries have been lovingly resurrected, first by R.J. White, Eric Hobsbawm, George Rudé, and E.P. Thompson, and then by a younger generation of historians who began their graduate studies in the tumultuous 1960's. From researches in judicial records, provincial newspapers, and especially in the Home Office papers, they have uncovered a rich diversity of popular violence. No one who has tried to keep up with this torrent of historical literature will be particularly surprised by what Dr. Stevenson has to say. But everyone should be profoundly grateful to him for synthesizing the material in this judicious book.

Eighteenth-century crowd violence was directed at a wide range of targets. Some disturbances, like the Jacobite riots early in the century or the Wilkes' rioting in the 1760's and 1770's, were primarily political. Others, like the anti-Jew Bill riots of 1753 or the Gordon riots of 1780, were occasioned by parliamentary action, but were in fact manifestations of religious conservatism. And still others, like riots set off by unusually high food prices or army and recruiters, were directed against those persons who were believed to be depriving the poor of their traditional rights.

The influence of the French Revolution in the 1790's, and radical ideologists like Tom Paine, William Cobbett, and Thomas Spence introduced a new strain of crowd violence: The United Irishmen, Col. Despard's conspiracy, the Spa Field Riots, the Pentrich rising, and the Cato Street conspiracy were all attempts to establish a new regime through a French-style insurrection. This revolutionary-conspiratorial form of crowd violence came to a conclusion during the Chartist era (1839-48), when parliamentary rejection of the Charter led to attempts at insurrection.

The period between 1850 and 1870 Dr. Stevenson terms "the transition to order". To be sure, there were still popular disturbances, often of a traditional sort: religious riots, violent labour disputes, and (especially in 1866-67) political violence. But the number and seriousness of the disputes was waning.

Why did English popular disturbances decline so significantly in the late nineteenth century? Dr. Stevenson does *not* believe that the general introduction of a professional police force was decisive. Rather "broad cultural factors conditioned the development of a more 'orderly' society in which protests were transmitted through organisation and a relatively harmonious relation-

ship achieved between different groups without the need for a vast repressive apparatus. In that sense, the English 'mob' tamed itself, at least as much as it was tamed by government agents".

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J. TANN (ed.), *The Selected Papers of Boulton & Watt*. Cambridge, Ma.: MIT Press, 1981. Vol. I: *The Engine Partnership 1795-1825*. Pp. xv + 425.

The tremendous importance of steam power in the industrial revolution, particularly in Britain, makes the publication of this first volume in a projected series a significant event. The firm of Boulton & Watt deserves the close attention of historians because of its principal role in the development of efficient steam engines with broad applications in pumping, milling, factory production, and water-borne transport. The firm was also a fascinating partnership whose business practices and operating philosophies are revealed in this judicious selection of documents from its voluminous papers.

Admirers of Jennifer Tann's classic study, *The Development of the Factory*, will not be surprised by the impressive scholarship which illuminates these papers or the skilful organization of this volume. Unlike her earlier book, which dealt primarily with Boulton & Watt drawings, the emphasis here is on complete written documents. However, Dr. Tann includes a number of informative drawings, sketches, and engineering calculations from the records of the firm. When a rough sketch in the text or margin of a document is essential for understanding a technical explanation, she reproduces the original illustration.

Dr. Tann has selected 213 documents from two collections: the Boulton and Watt Papers in the Central Library of Birmingham and the Matthew Boulton Papers, which the Matthew Boulton Trust has placed on loan in the Birmingham Reference Library. Her description of the immense holdings in these collections gives the reader a sense of the difficulty of her editorial task. The documents have been chosen "from the mass of material surviving from the partners, their employees, friends and customers, to illustrate themes in the organisation of industry in Britain and overseas during the early industrial revolution".

The documents are organized in ten sections, each representing a specific theme. They are: the engine partnership, engine technology, patents and privileges at home and abroad, pirates and competitors, subcontracting, customer complaints, profits and premiums, engineers and mechanics, Soho Foundry and Manufactory, and engine sales. A considerable amount of overlap is, of course, unavoidable; a document in one thematic section may have bearing on several others.

The editor provides a brief introduction to each section, as well as a broader introduction to the subject of the entire volume. Although some familiarity with the history of Boulton & Watt and the basic operation of early steam engines is very helpful, a reader who relies solely on the introductions and annotations will both enjoy and profit from an excursion into these primary sources. Dr. Tann makes no attempt to explain all the technology. She does identify people, firms, specific engines, and patents. She reports on whether any orders materialized from letters of inquiry and clarifies a great many unclear references in the documents.

Most of the documents are letters. The blend of personal, business, and engineering material in this correspondence is particularly interesting. The people, their problems and their aspirations are as much a part of the history as the patents, contracts, and cost analysis. Matthew Boulton's steady encouragement of his easily discouraged partner is wonderful: "We have truth, justice, honour, power, & Law on our side; therefore Cheer up dont be low spirited but support youself as aMan against the folly & Villany of fools & taskels".

There is something of interest in this volume for almost everyone. Labour historians can find precise data on piecework and partial subcontracting procedures within the foundry. Business and economic historians can examine the marketing of a new technology, the early use of cost accounting, the setting of the premium charged for an engine, and many other important topics. The subject of patents and patent violations has been covered more extensively in the specialized documentary history by Eric Robinson and A.E. Musson, but Dr. Tann adds much new material, particularly on the efforts to secure and protect privileges overseas.

For historians of technology, including this reviewer, the book is a treasure. Dr. Tann gives us an inside look at innovation, practical development, manufacturing, and technological diffusion. The economic and legal considerations which so strongly influence the path of technology get ample coverage. We see the technical problems, the many setbacks that made Watt's work so troubling for him. Watt learned the hard lesson that "first ideas are a very small part of the work". Yet we can also feel the delight of technical achievement when Boulton puts one of Watt's ideas into the physical form of a mechanical movement: "There is something so agreeable in a good Movement to ones Mechanical feelings, that I could not forebear playing with it all this afternoon.."

Many of the selected documents demonstrate the strong interdependence among industries in Britain. The factory system, hindered by limited water power, had great need for a good rotative steam engine. As Boulton wisely advised his partner in 1781, "... the people in London, Manchester, and Birmingham, are Steam Mill Mad, & therefore let us be wise & take ye advantage". But even with proper design a steam engine was not easy to build; the early dependence on subcontractors such as John Wilkinson, who could cast and bore a cylinder to acceptable tolerances, was unavoidable. For a means of go-

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verning the output of an engine, the partners borrowed the flyball concept from grist milling.

The Engine Partnership is an outstanding beginning for a multivolume series which will go on to explore "the application of steam power to different industries in Britain and overseas". Dr. Tann's extensive research is apparent not only in the breadth of subject matter covered and in the careful annotations, but also in her fine introductory essay, which offers the best estimates available on annual sales of B & W engines in Britain. This reviewer eagerly awaits her next volume.

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