REVIEWS OF BOOKS

M. BERG (ed.), *Markets and Manufacture in Early Industrial Europe,* London and New York, Routledge, 1991, pp. XIV-332.

Edited by Maxine Berg, this book is the result of recent research on the early phases of industrialisation in Europe and adds to the lively debate about the subject among historians, especially Anglo-Saxon historians. We have only to mention, for example, the contributions of the New Economic History, the studies by Peter Mathias and John Davis, whose book *The First Industrial Revolutions* has been reviewed in this journal and has recently been published in Italy, edited by A. Di Vittorio (Cacucci Publishing Company). Berg's book is the result of a series of seminars and a conference (organised by Berg and J. Davis between 1985 and 1989) during which numerous scholars developed the concept of protoindustry, illustrating the wider economic and social dimension of the early phase of industrial expansion and comparing different European regions.

Berg sets out to give an original contribution to the debate and focuses on market structures and above all on the development of, and changes in, distribution and consumption patterns which accompanied the initial phase of industrialisation. But, as Berg herself states, "the market discussed in these papers is not the abstraction of economists, but the market as an institution which interacted with other social institutions of early industrial manufacture" (p. XII). So the market is understood not simply as the place designated for trade, but is considered in the wider context of local and central government economic policy, customs and commercial strategy, guild action, and the evolution of products and demand. Old and new modes of production and trade and traditional and new trade circuits are studied in different situations through a comparative approach. In this respect it is a shame that none of the essays contained in the volume deals with Italian situations which nevertheless offer historians useful insights into protoindustry, as the studies by Cafagna, Poni, Ramella, Dewerpe and others show.

The authors of the essays set out to raise new questions and to throw light on to several areas which until now have been neglected by scholars. In her introduction Berg makes an interesting historiographical observation: the historian's approach to the industrial revolution has long been dominated by concern with technological innovation and production, that is, with supply, even though by its very definition, two of the three distinct features of protoindustry (economic and social symbiosis between agriculture and industry according to the season, industry coordinated by town merchants and dependent on remote markets) are to do with the market. Moreover studies about protoindustry have gradually widened and have become more complex and, at the same time, the theory itself has aroused considerable criticism, with difficulties in testing its validity. In this connection, as early as the beginning of the 1980s Medick, Kriedt and Schlumbohm had noted the importance of trade with the colonies and the emergence of a new world economic system [1], although the separation between rural production and the market was not yet questioned. On the contrary, as Berg observes, the more protoindustry was studied, the more the town-country dichotomy widened, despite attempts by historians like J. de Vries, P. Hohenberg and L. Lees to demonstrate their ties [2]. Only very recent studies, among which Berg quotes those by R.C. Allen and P. K. O'Brien and by E.A. Wrigley and P. Bairoch, have shown that agriculture could never have been the primary market for sustaining the industrial revolution, and highlight the role played by towns in stimulating the rural economy [3]. In particular, Bairoch has shown that urban decline in Europe between the sixteenth and eighteenth century was not a generalised phenomenon but was especially pronounced in countries like Spain and Italy and was much less widespread in others, like Britain for example. The conclusion reached in these recent studies, emphasised by Berg — perhaps slightly underestimating the studies carried out by other scholars, particulary by French historians — is that Britain's rural and urban industries developed alongside one another and were characterised by what has been defined a strategy of "flexible specialisation" [4]. At this point it

[1] P. KRIEDTE, H. MEDICK, J. SCHLUMBOHM, *Industrialisation before Industrialisation. Rural Industry in the Genesis of Capitalism,* Cambridge, 1981.

[2] J. DE VRIES, *European Urbanization 1500-1800,* 1985; P. HOHENBERG - L. LEES, *The Making of Urban Europe, 1000-1950* Cambridge, Mass., 1985.

[3] Berg refers primarily to: R.C. ALLEN, "The Growth of Labour Productivity in Early Modern English Agriculture" in *Explorations in Economic History,* 25, 1988; P.K. O'BRIEN, "Agriculture and the Home Market" in *English Historical Review,* 1985; E.A. WRIGLEY, *People, Cities, and Wealth: The Transformation of Traditional Societies,* Oxford, 1987; P. BAIROCH, *Cities and Economic Development,* London, 1988; to which we may add two more recent articles which have appeared in Italian journals: R.C. ALLEN, "Le due rivoluzioni agrarie, 1415-1850" in *Rivista di Storia Economica* VI, 1989, n. 3; P. BAIROCH, "Urbanisation and the Economy in Preindustrial Societies: the Findings of Two Decades of Research" in *Journal of European Economic History,* 18, 1989.

[4] This definition is used by Berg and other scholars, including C. SABEL-J. ZEITLIN,

might be useful to mention the research by C. Engrand on the integration of rural manufacturing and urban industry in Picardie in the eighteenth and nineteenth centuries[5] and by S. Chassagne, who described a model of "persistent protoindustrialisation" at the beginning of the 1980s, citing various examples in the textile sector[6]. P. Cayez, on the other hand, has used the concept of "dualism", that is, the coexistence of cottage industry and "modernised", centralised factories in order to explain the substantial growth of the French economy up till 1870; according to Cayez, in the early phase of French industrial capitalism, the integration of the two systems took place, above all, through the mobilisation of labour, which was made up of traditional artisans, the rural population and groups of urban workers[7].

Clearly, therefore, there have been several important studies focusing on the ties and interactions between the rural and urban economy and among these, the collection of essays edited by Berg makes an incisive contribution through the emphasis given to trade and its influence on early industrial societies. These are fundamental issues which are still relevant in the present period, defined as post-industrial and characterised by a global network of trade and communications.

The book is divided into six sections (Introduction; The Market and the State; Markets, Merchants and the Middle Classe; Markets and Urban Manufacturing; Producing for the Market and Female Labour; Market Structures and Social Institutions; Trade and Customs Organisation). Berg's introduction is followed by an essay by S. Pollard, who once again puts forward his thesis about the regional context in which industrialisation took place and about the role of national institutions. According to Pollard, although many factors which directly influenced industrial development can be sought in a national context (for example, trade policy, the monetary system, access to foreign markets and the colonies, legislation concerning ownership and labour), industrialisation can only be fully understood if the regional context is considered, taking account of the location of resources. These resources, which include mineral resources (the basis for technological innovation), agricultural resources (including raw materials used in processing, like linen, wood and wool), water (an energy source, a transport way and an element used in preparing a large number of materials) and labour (understood not only as capacity and availability to carry out a specific job but also as complementary

"Historical Alternatives to Mass Production: Politics, Markets and Technology in Nineteenth-Century Industrialisation" in *Past and Present,* 1985, n. 108.

[5] C. ENGRAND, "Concurrence et complementarité des villes et des campagnes: les manufactures picardes de 1780 a 1815» in *Revue du Nord,* 1979, LXI.

[6] S. CHASSAGNE, "Industrialisation et desindustrialisation dans les campagnes françaises: quelques reflexions a partir du textile" in *Revue du Nord,* 1981 LXIII.

[7] P. CAYEZ, *Aspetti dello sviluppo industriale in Francia nell'Ottocento,* edited by L. SEGRETO. Milan, 1984.

skills) are a productive area's endowment. Their depletion, their transformation and the challenges posed by new and different resources are the underlying causes of the changes and overturning of production systems in the various industrial regions. Pollard accepts the validity of the protoindustrial theory and presents the historiographic problem regarding the relation between protoindustry and subsequent economic development, which is a still an open issue. He stresses again the need for a regional analysis; in order both to fully understand Europe's economic development and to understand the different paths to industrialiation in the period of the Industrial Revolution.

The issue raised by Pollard is by no means of secondary importance. The choice of a regional and or national context greatly influences the historian's interpretation and use of sources and is crucial for testing the theory of protoindustry and for examining the dynamics of transition from the protoindustrial phase to industrialisation proper. The weight of the issue is shown by the wide gamut of positions taken by historians on the subject, ranging from Pollard's own view of the regional context as an indispensable framework of study, to Mathias's comments on the effectiveness of micro-analysis[8] and Landes for whom the the nation-state is a valid unit of analysis in economic history.

After Pollard's essay, different regions are examined. The most thorough analysis regards Spain which is studied in a fairly complementary way by J.K.J. Thomson and J. Torras. The former examines the role of the state in the development of the cotton industry, especially with regard to calico-printing. Here government intervention, which had been conspicuous since the mid-eighteenth century, was less pronounced after Charles III's accession to the throne (1759) but nevertheless it still provided the sector with a high level of protection and its effects were felt for a long time afterwards both in economic terms and in terms of what Thomson defines as attitudinal categories. On the one hand the benefits the big cotton manufacturers had enjoyed since the mid-eighteenth century enabled them to accumulate profits and to establish a position of leadership in the industry and thereby to dominate the subsequent phases of improvement in the basic manufacturing techniques of cotton. On the other hand, as far as attitudinal categories are concerned, the importance of the big manufacturers was such that they became a model for productive organisation, a fact that was recognised by the guild regulations drawn up in 1796 which defined the type of *fabricas* entitled to *franquicias*. Overall, state

[8] In his introduction to the conference held in Florence in October 1981 on the Industrial Revolution in Europe, Mathias stressed the advantages of a micro-analysis for reconstructing the dynamics of early industrialisation, since "so much of early industrial development too place in a few restricted areas, was organised on a local basis, was financed using local and regional credit and depended for labour mainly on the local population, and only to a very limited extent on immigration". Cf. P. Mathias, *La rivoluzione industriale: temi in discussione*, ivi.

intervention had a decisive role in what was a key sector for the Spanish economy.

The situation examined by Torras in his essay — which adopts the approach suggested by Berg in the introduction — was quite different. The Spanish historian considers an area of manufacturing which was very different from the preceding one, although still part of the textile sector: the manufacture of woollen textiles in Catalonia in the eighteenth century, for which protective tariffs were low and ineffective and state intervention was generally of secondary importance. Torras favours a micro approach: he reconstructs the rise of a family of drapers, the Torello's, analysing the mercantile aspect of their business which grew with the expansion of trade with other towns and with foreign merchants. Torras focuses on the possibilities a merchant with entrepreneurial qualities had of self-transformation, that is, the ability of merchants to organise trade with other regions of the country which Torras defines as "trading diaspora". This ability was a decisive factor in the notable success Catalonian products had on Spanish markets despite overwhelming competition from foreign goods and intermediaries. This new feature in the management of marketing helps to explain the recovery of Catalonia's woollen industry towards the end of the seventeenth century following a period of crisis due to the loss of important Mediterranean outlets and foreign competition. In the seventeenth and eighteenth centuries production began to pick up in smaller centres in response to the increase in demand for cheap textiles caused by the development of specialised agriculture. The number of looms employed for commercial purposes quadrupled, the competitive capacity of Catalonian products was strengthened in the markets of other regions and while the manufacture of coarser textiles for the rural market slowly declined, specialised manufacturers of fine cloth were able to take advantage of the recovery; at the same time the merchants successfully controlled distribution, reducing trading costs so that by the mid-eighteenth century Catalonia *panos* were sold all over Spain.

The studies by Thomson and Torras show two very different productive situations. One emphasises the long-term effects of the government's economic policy while the other emphasises the role of managerial capacity in helping such an important branch of industry as the wool sector to emerge from a long phase of stagnation. To some extent the two situations complement each other and together they throw light on the Spanish economy in the eighteenth century and, above all, on the growth of a key sector in the early phase of industrialisation, the textile industry.

P.H. Hohenburg's essay on the development of urban manufacturing in the protoindustrial economy is more problematic and less conclusive. The author investigates what happened in towns, their productive function as well as the factors determining the translation of the centre of production from the town to the countryside. His thesis is that towns moved production into the countryside to meet the new demands of the market; since urban production was dominated

by guilds and was therefore rigid and costly it was unable to satisfy a wider and more diversified market while in the countryside the elasticity of labour supply was greater and institutional and organisational barriers were weaker. Yet the strategy opted for by a large number of town manufacturers had what Hohenburg defines as the paradoxical effect of developing rural production to the detriment of the urban economy. Nevertheless, the American economist's conclusion, partly shared by Berg in her second essay on technological innovation and the development of Birmingham in the eighteenth century, is that European protoindustrialisation was an urban phenomenon and that case studies are necessary in order to provide us with a comprehensive picture since the comparative advantages of the town and the countryside, which were crucial for the location of production, depended on the type of product.

G.L. Gullickson reaches a similar conclusion about the need to compare different local situations in her essay on "Love and Power in the Protoindustrial Family" in which she investigates the protoindustrial family and examines how the performance of new productive tasks modified the role of women and family relationships. She cites the example of the Caux region, north of Rouen in Upper Normandy: local labour was used by the town merchants long before the protoindustrial era and production had outlets both in the Parisian and international markets. In such a context the status of women hardly improved and changes in family relationships are not easy to discern despite the increasing use of female workers, and in sectors which were previously the sole domain of male labour. The changes that occurred in the eighteenth century, when merchants and entrepreneurs first adopted machines for cotton manufacture which in only half a century overtook wool production and shook the equilibrium which had previously existed between rural industry and textile manufacture, only partly influenced the condition of women. The great increase in the number of people employed in manufacturing affected women, it is true, but the latter continued to have a largely subordinate role as spinners while weaving was almost exclusively entrusted to men. Moreover, available figures show that women's wages were lower than men's, although they were nonetheless important as can be inferred from the absence of male seasonal migration and from the fact that children continued to live at home. The author refers to numerous studies — including those by F. Mendels on industrialisation and population pressure in eighteenth-century Flanders and by D. Levine on the woollen industry in Leicestershire [9] — which have thrown light onto productive systems heavily dependent on femal labour but which operated a rigid division of labour, according to sex and paid low wages to women. Gullickson also refers to R. Braun's researches — which partly foreshadow the whole series of studies on protoindustrialisation — on the

[9] F. Mendels, *Industrialisation and Population Pressure in Eighteenth-Century Flanders*, New York, 1981; D. Levine, *Family Formation in an Age of Nascent Capitalism*, New York, 1977.

mountainous area around Zurich. Using data on age and marriage frequency Braun shows how important the earnings of women were in changing their families' quality of life [10]. Thus Gallickson cites certain studies which emphasise the influence of protoindustry on marriage trends and others which show that no such correlation existed, or was limited, in other areas of production. In this respect the essay appears more a review of the various paths of research than a source of new and useful material to add to the complex picture we have of early industrial Europe. Nonetheless, the author provides some useful tables and her general conclusion about female labour being the key to the success of protoindustrial textile manufacture in several areas is in fact shared by numerous scholars including Maxine Berg who called for more attention to be paid to the issue of female labour in relation to economic growth and changes in production during an economic history seminar held at the University of Warwick in 1986 [11].

D. Simonton also deals with the role of women in a very interesting essay entitled "Apprenticeship: Training and Gender in Eighteenth-Century England" which focuses on the static nature of English society in the early industrial period when institutions such as apprenticeship were first and foremost a means of passing on social values. In this connection training women and teaching them skills and manufacturing techniques was considered much less important than training male workers.

We can only mention very briefly the other contributions making up the collection in which the authors investigate the complex relationship between labour, local communities and socio-economic institutions through a multidisciplinary approach and drawing on interesting material on family and local history as well as on the social sciences, such as the studies on alcoholism. These include L. Magnusson's study on production and social customs in Eskilstuna, a town in the south of Sweden, in the first half of the nineteenth century, P. Hudson's essay on textile manufacture in rural Yorkshire

[10] R. Braun, "The Impact of the Cottage Industry on an Agricultural Population" in D. Landes (ed), *The Rise of Capitalism,* New York, 1966.

[11] The series of economic history seminars was organised between 1984 and 1992 with the support of the Istituto Italiano di Studi Filosofici (Naples). The first seminar was held in Oxford and the subsequent ones were held at the Centre for Social History, at the University of Warwick under the direction of J.A. Davis. During the July 1986 seminar on "Innovation and Technology from the Eighteenth Century to the Present" Berg presented a paper entitled "Technology and Productivity in Early Domestic Manufactures" and discussed the changes in technology and in work practices in the so-called traditional industries using the theory of protoindustrialisation and the theory of alternative paths to industrialisation. She examined the reorganisation of the workplace, the division of labour, minor technologies and machinery, exploring the opportunities for intensifying production and the special role played by female and child labour.

(1680-1810) and B. Collins' study on cottage industry in Ulster in the nineteenth century. Special attention is paid to the market as an economic as well as a cultural context where supply interacted with consumer demand and preferences in a complex way which inevitably influenced productive processes. Thus T. Kusamitsu studies the fundamental role of fashion and middle-class tastes and the power exercised by the London merchants in manufacturing organisation.

Overall this is an interesting book. Above and beyond the debate on the validity and applicability of the protoindustrial theory, it shows that protoindustry still kindles lively discussion. In particular one of the most impelling aspects of the original debate on protoindustry, namely the validity of subjecting the various European economic regions to differentiated analyses, still carries conviction and has opened new prospects for historical research which was for so long subjugated to the English model of the industrial revolution. But this opening is not free from the risk of tautology and circular arguments, as Pollard himself is well aware (cf. p. 46), nor from the risk of advancing hypotheses in which theory fails to be backed up by archivial research. For historians, the attempt to integrate historical interpretation and economic theory is an ongoing challenge.

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L. DE ROSA, *Orientamenti e problemi in storia economica,* Turin, G. Giappichelli editore, 1990, pp. 288.

Economic history is one of the disciplines most involved in the process of renewing and restructuring historical research, a fact which can be explained by the substantial increase in the number and variety of studies and monographs produced in recent years. Not surprisingly, it has become more and more difficult to define exactly the scope and limits of research bearing on economic history. However, although numerous recent studies have outlined new and more flexible modes of understanding the subject, these can be dangerous and ambiguous. In fact, although such studies are important from the point of view of documentary and archive research and on account of the interesting research themes they propose, they seem to carry two big risks. The first is that of putting research on a virtually isolated and restrictive plane since very often the events being reconstructed are not well linked to broader and more general contexts. The second risk, and equally important, is that of using principles of interpretation and research tools which are not relevant to the subject in hand, thereby compromising, at times beyond remedy, the analysis of the events under

scrutiny. And so, (before tackling any research), there must be a sound groundwork on the complex links between history and economic theory in order to avoid dangerous muddles and imprecise analyses.

Luigi De Rosa's study satifies these requirements, showing both the sound and exhaustive ground-work carried out by the author on the subject as well as his ability to set events against a general background in a very clear way. With a broad and articulate review of the main issues regarding the many points of contact between history and economic theory, De Rosa outlines clearly what has been accomplished up to the present day, pointing out problems that interpretations and models have given rise to when applied to reality. He also indicates the new research tools which have become more sophisticated over the years, the effects they have caused and the prospects and ideas for future research. The result is a coherent and systematic work written with the commitment and authority of a long-standing and eminent scholar in his field.

The first part of the book, concerned with theory, deals with the principal interpretations related to the history of industry. This is followed by the quantitative method's difficulties as far as economic history is concerned, the various and at times contrasting conceptualisations of cycles and trends, the research methods inherent to the emigration issue, and lastly the frequent links between economic history and the history of banking. This lengthy section is not a mere abstract analysis of the existing literature, but goes on to discuss the problems arising from the application of such theories to real situations. These verifications make the study all the more interesting: thus the young scholar who is about to undertake historical research can easily recognise the inadequacy and the bias of some theories when applied to reality. For example, De Rosa considers the history of industry, pointing out the difficulties of finding a coherent, well-ordered documentation which permits an accurate reconstruction of industrial groups. He then goes on to describe the various schools of thought which offer the most correct methodological approach, recognising in each the undoubted positive elements, but also evident limits and bias. But De Rosa himself seems to favour an open approach to the question which, without diminishing or discarding the specificity of industrial history, contains dynamic and general elements for linking it with wider issues of economic history. In tracing the history of trade, De Rosa confirms the necessity of placing it in a general setting that takes into account every aspect of the economic situation: this is a valuable contribution because of the increasing importance this discipline is taking on in academic teaching.

The part dealing with the role of the quantatitive element in research into economic and social phenomena concentrates more specifically on the tools of historical research. Here we have a rich, precise picture, showing the various positions of economic historians in Italy as regards the difficult criteria for applying the quantitative method and as regards the problems arising from an indiscriminate, uncritical use of data. The development of theories of cycles and

trends, for the very reason that it was strongly anchored to the many long and short-term fluctuations, has put even greater emphasis on the dynamic qualities of economic history research. In particular, the concept of crisis, today the subject of frequent debate, does not seem at all easy to define; De Rosa recognises that when we speak of the cause of a crisis we run the risk of emphasising one particular aspect more than others. On the contrary, it is the analyst's task to gather all the aspects involved in the process and to identify and to link up the movements, phases, actions and consequences ensuing from the crisis itself. In essence, De Rosa wishes to stress — something he repeats in other chapters of the book — the necessity of considering all the elements that make up economic history not as water-tight compartments but as areas subject to continuous and not always foreseeable changes and developments. Emigration, which has recently occasioned increasing interest on the part of historians, serves as evidence of the inadaquacy of interpretations constructed a priori. It is not surpising that even nowadays such a burning issue still appears to be a minefield. A history of emigration cannot be written without taking into account a complexity of factors which often intersect and condition one another. De Rosa observes that the history of emigration is a bottomless pit since it deals with men and women whose behaviour is not alway predictable and does not always conform to ideological patterns.

The section dealing with the relationship between the history of banking and economic history is without doubt extremely rich, both because of De Rosa's competence and the great amount of research he has undertaken in the field, and because he delineates the figure of a great historian, Federigo Melis. As is noted, the path opened up by Melis' research was rich and fruitful: in his long and intelligent research in the Tuscan archives, especially in the Datini archive, Melis showed how advanced models of banking organisation, which were usually supposed to have originated in the modern era, had actually developed in medieval times.

The second part of the book deals with the issues to be confronted and solved within the sphere of economic history. There are indeed still many problems awaiting a solution: land irrigation systems, food management, the role of silk in the European economy, the consequences of urbanisation and industrialisation, the shaping of the Italian banking system and the difficult beginnings of agrarian credit. However the advice already given is valid in all these cases too: research on these important issues cannot be undertaken without complete mastery of the studies already completed and the theoretical models used. In this sense, De Rosa's volume is without doubt very valuable on account of his wealth of knowledge; it is a definite must for anyone who wants to prepare for tackling topics connected with economic history.

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M. DUMOULIN, *Les relations economique italo-belges (1861-1914),* Bruxelles. Academie Royale de la Belgique, 1990, pp. 372.

The study of economic relations between Belgium and Italy in this work is basically intended as an analysis of the structure of trade and direct portfolio investments. In addition, the author sets out to reconstruct capital flows, keeping the focus largely on Belgium. His analysis of commercial imbalances and his study of the joint-stock companies through which the transfer of capital was carried out, are in fact used by Dumoulin primarily to widen our knowledge of Belgium's economic situation. In general terms his analysis considers the relationship between two economic systems: that of Belgium, an industrial country, and that of Italy, which underwent the transition from underdeveloped to latecomer country. In this connection we should point out that although the imbalance is described within the framework of the centre-periphery model, the author does not apply the conceptual propositions of the dependency school, but rather emphasises the growth of Italy's economic system in the last decades of the century as well as presenting the results of previous works, in particular those published in the *Bulletin de l'Institut Historique Belge de Rome,* LII (1982), which show that the ruling class in both countries acted autonomously in favouring a policy of openness towards the international market as a condition for a better allocation of resources.

As far as sources are concerned, the author makes an intelligent use of the data from the *Tableau du commerce exterieur de la Belgique avec les Pays étrangers,* which provides annual information both on the total quantity and value of exports and imports to and from each country, and also on various commodity groupings. However, despite the wealth and systematic arrangement of the information set out in the tables, the fact that there are variations in the classification of commodity groupings — which Dumoulin himself tries to correct — and in the subdividision of commodities according to use, poses certain problems. The latter in particular take on a negative weight in view of Belgium's geographical position and government policies which often led to Belgian imports being disguised as goods in transit. Where the shortcomings in the official sources (ministerial surveys) have been overcome through integration with information from private archives, it has been possible to make a survey of 138 Belgian and Italian joint-stock companies, in which a considerable sum of Belgian capital was employed.

Various aspects of the trade between Belgium and Italy are investigated, such as the proportion of goods to and from Italy *vis-à-vis* the total, the composition of trade (general and special) and the ratio of goods in transit to the total value of goods traded. Dumoulin observes that imports from Italy represented less than 0.75% of total imports in the period 1861-81, rising to 3% in the last few years of the century only to drop again to 1%. In addition, he observes that the composition of goods imported from Italy — 90% of which were for direct consumption in the first twenty years, falling to 30 to 40% in the

following period — progressively showed an inverse ratio betwen quantity and value. Food products, preserves and citrus fruits, which were imported in large quantitities, were relatively unimportant as far as total value of trade was concerned in view of their low unitary value. The same can be said of minerals, especially sulphur, which was imported mainly from Italy up until the 1880s. The situation with regard to zinc, however, was quite different: the latter accounted for 40% of the total value of imports throughout the period. Although in 1874 Italy became the fifth most important country for Belgian exports, trade figures for-goods imported into Italy from Belgium were quite modest and accounted for about 1 to 2% of the total. Trade balances between the two countries had three distinct trends: that of the period 1861-87 when Belgium had a favourable balance, that of 1888-1906 when the balance was favourable to Italy and that of 1907-13 when the balance was restored again in Belgium's favour. Two general remarks are made by the author in this connection: firstly he stresses the political influence of relations with France and the effect the Italo-French commercial war had on trade; secondly he notes the marginal increase in the volume of transactions in the period, notwithstanding technological innovations and improvements in overland communications.

The factors influencing investments are more complex. As we have already said, Dumoulin is concerned with examining the specific case of Belgium which is all too often confused with the German or French situations. For this purpose, he makes a general survey of investments which comprises temporal and spatial variations on the one hand and variations in the sectoral basis of investments on the other. Using 1874-1913 as the timespan, and considering Italy as part of southern Europe (together with Spain and Portugal), Dumoulin arrives at some very interesting conclusions. Firstly he shows the weight of investments in southern Europe, which or after Russia, was the second most important area absorbing Belgian capital directed at the overseas market, accounting for about a fifth of the total of overseas investments, that is to say, twice the amount invested in African countries. Differing from the findings and conclusions of other historians (L. Frere, G. Kurgan, H. Daems and N. Pauwels) Dumoulin shows that, apart from a concentration of capital in the transport sector, investments in other sectors were constantly changing throughout the period. Focusing on the most important, he notices a ten-year trend in which investments, in terms of flows, were concentrated in the mining sector in the 1860s, in the public utilities' sector (gas and water) in the 1870s, in the rail transport sector in the 1880s, in financial specialisation in the 1890s and in the sugar industry at the beginning of the century. Dumoulin illustrates this subdivision with an analysis of joint-stock companies, including the *Mines de zinc et de plomb de Menbach* (1862), controlled by the SGB, the *C.ie General des Conduites d'Eau* (1867) tied to A. Langrand-Dumonceau and the Banque de Bruxelles associated with J. Errera. The latter was largely responsible for the growth of urban transport companies in which Belgian capital was to have a pre-eminent role, not only through the *Société Général de Chemins de Fer*

Economiques which owed much to J. Oppenheim's entrepreneurship as a financier, but also through the tramway companies of Naples, Turin, Florence, Alessandria, Brescia, Leghorn, Verona and lastly the finance companies SGBEE and SOFINA. These had a compensatory role in the changes operated by Belgian investors in the direction of their investments, firstly by enabling direct investments to be carried out in new sectors and then gradually by replacing direct investments with portfolio investments such as those in the electricity companies Adamello, Ligure-toscana.

We have mentioned the new interpretation given by Dumoulin which has caused changes to be made in the investment hierarchy established by Nitti, Stringher and afterwards confirmed by V. Zamagni. For Dumoulin, after rail transport, whose primacy is unquestioned, come not gas, aquaduct and insurance companies, but sugar production, mining and the electrical industries. This variation derives basically from investments concentrated in the early years of the twentieth century, but they are never theless significant. Equally important are his conclusions regarding the territorial distribution of investments: in the traditional tripartite geographical division of Italy (by which, contrary to previous studies, Sardinia is placed in the south), Demoulin notes that, as expected, the northern region had the priority share in investments, but only for the nineteenth century, while the situation in 1914 showed a shift in favour of the southern region and, above all, a significant increase in investments in all areas with a consequent narrowing of the North's proportional share. If we then consider the specificity of investments, Dumoulin's study throws new light onto the internal movement of investment in the transport sector: after railway construction, the focus of investment shifted to urban tramways, which at the beginning of the twenticth century were completely dominated by Belgian companies as the photograph on the cover showing the tram going down via San Carlo in Naples so vividly depicts. If in his intent to stress the importance of commerical relations and the movement of capital between Belgium and Italy — which have been often underestimated by historians on account of the size of Italian commerical flows towards France and Germany — Dumoulin tends to carry out an idiographic study of the economic relations between the two countries and the analysis suffers a little as a consequence, it is true that he adopts a dynamic pattern for the centre-periphery model.

The initial phase of exchange of primary goods for finished articles was followed by investments from the centre firstly aimed at increasing the volume of goods needed for its own productive system and then concentrated in areas which generated a large enough internal demand for sustaining autonomous industrial growth, often as a result of increasing relations with the central country. However, Dumoulin does not fully develop the issues arising from the changes that occurred in the various phases of the relationship. In particular he appears to underestimate the importance of the 1880s as a turning point when protectionism and the new interest in the Italian market shown by economies more technologically advanced than Belgium's (such as those of Switzerland and

Germany), together with the rapid growth of several industrial sectors in Italy, all brought about great changes. Consequently Dumoulin tends to neglect the structural forces underlying the trade between the two countries which determined not only the sectoral concentration of investments but also the fact that Belgian expansion was qualitatively lacking in dynamism and was, in this way, more a testing ground for industrial and financial projects which were afterwards developed in other peripheral areas like central Africa, than a real basis of growth for the two economic systems.

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C. FINK, *Marc Bloch: A Life History,* Cambridge University Press, 1989, xix + 371 pp.

This long-awaited biography of Marc Bloch (1886-1944) is finally published. Most people who are familiar with the French *Annales* historical school have been aware of the preparation of this book through Bloch's eldest son Etienne's writings about his father. They are also informed about Professor Fink's long research on Bloch's life, and her translation of Bloch's *Souvenirs de guerre 1914-1915* (second edition by Cambridge University Press, 1988).

After reading the whole book, I am inclined to think that this is the first and probably the last biography of Bloch. I cannot imagine anyone who can utilize all the available correspondence, archives, diaries to offer a better picture of Bloch's life than Fink's detailed presentation. I find this book easy to read, entertaining, deep enough, and meaningful for all readers in the humanities. This is because Bloch's life was interesting at two historical levels: his contributions to 20th century historiography and his engagement in two World Wars, offering a personal testimony to the human destiny of the first half of this century.

This book contains 12 chapters, with some precious photos of Bloch's life, and two useful appendices (selected bibliographies of Bloch's publications, and very detailed sources from which Fink writes this book). My overall impression is that the author shared great persistence in her research: she traced every possible clue during its long preparation. From the often more-than-100 footnotes in a chapter, readers can feel her spirit of resistence, and the materials are sometimes very impressive. For instance, she is able to inform us about Bloch's salary during the 1930s (p.169 note 6); using diaries and other sources, Fink describes Bloch's mental crisis and his 'brother-enemy' relationship with Lucien Febvre (1878-1956, co-founder of the *Annales)* during his several applications for a professorship at the Collège de France (pp. 171-190); using Bloch's testimony (dated 18 March, 1941, three years before his death), which was located and reproduced on pp. 258-9.

Her writing style is very reader-friendly. She provides useful background information so that 'outside readers' who are not familiar with French historiography can easily follow the arguments. In this life biography the author makes the following points clear to readers: the personal life history of Bloch; the research and methodology trends of Frenh historiography during Bloch's lifetime; the foundation and the impact of the *Annales* historical school. For outside readers, this book provides a balanced account of the above three points; for 'insiders', who are familiar with this school, Fink's impressive sources sometimes provide precious information that were not previously known. I think Fink is able to satisfy both groups of readers.

I personally like the following chapters the most: 5 (his Strasbourg University life), 6 (his research interest), 7 (the foundation of the *Annales* journal, 8 (his failure at the Collège de France and his return to the University of Paris), 11 (his underground activities against Nazism), 12 (evaluation of his influence on the history community). On the other hand, I find chapter 4 on World War I occupied a disproportionate space (35 pages), but this topic seems only indirectly related to the main theme of the book. The same is true in chapter 9 (also 35 pages) on World War II. I think the space devoted to these two chapters can be reduced by half. Fink also discussed most of Bloch's major works, but with only a three to five-page presentation, from Bloch's biographical perspective. This aspect needs a separate treatment.

Bloch was perhaps the most inventive scholar in French historiography of this century. It is a great loss for the history community that he was sacrificed for his country prematurely at the age of 58, and that his professional life had been interrupted by the two world wars. Some of his major works are available in English, but some important ones are still to be translated. People may think that Bloch's contributions have been under-estimated for a long time, but the reprinting of his works many times in France provides evidence that the re-evaluation of Bloch's contributions is in progress. The broad scope of his writings (including the history of technology, feudal society, mentalities, rural society and so forth) makes it difficult for a single writer to present his thoughts in one volume. This because few scholars can master the literature of these diverse fields and offer a balanced account of Bloch's massive output. Although not anticipated, a book on Bloch's thought is still, however, badly needed.

Cambridge University Press enjoys a reputation for high quality products, but I have two complaints about the presentation of this book. One is that there is no chapter indication on the top of the pages, marking it inconvenient to check something across the chapters. Similarly, the chapters are not divided into sections, wich is also inconvenient. Another thing is that references are embodied in the footnotes: this is convenient for reading but cumbersome at two levels: (1) many references are repeatedly cited, wasting space; (2) it is hard to locate a reference in subsequent citations. It would be helpful if all the published bibliography was put together at the end of the volume, in three pages. By contrast, the index is excellent.

All in all, I think Carole Fink's fruitful work will compensate her for years of endeavour; she deserves our heartfelt congratulations.

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A. FORTI MESSINA, *Il soldato in ospedale. I servizi di sanità dell'esercito italico (1796-1814)*, Milan, Angeli, 1991, pp. 355.

Some of the themes which Franco Della Peruta touched on a few years ago in his work on the army and society in Napoleonic Italy (Milan 1988) are taken up again for an indepth study in this book which gives us a vast and precise review of the military health structure. Annalucia Forti Messina has brilliantly reaped the fruits of systematic research carried out on the papers of the War Ministry held at the State Archives in Milan, which has been enriched by a host of laws, rules, instructions, circulars and statistics which was typical of the time. She does not limit herself to institutional aspects but she focuses on the soldier, or rather, the peasant enlisted in the army (the navy is not mentioned) with his scabies problem (more than 8% of the troops suffered from this disease) and the difficulties he had in accustoming himself to his surroundings which often took the form of pathological manifestations of "nostalgia".

The author regrets that available sources lead her to deal more with territorial organisation rather than field medical facilities, although the latter are the yardstick by which to judge the efficiency of a military health service. However we learn enough about mobile hospital units with their covered wagons, inefficient and badly-trained staff, their reduced quotas of medicines and sanitary equipment to confirm the negative judgement found in literature on the subject, even though we must bear in mind a whole series of objective difficulties, including the lack of an international agreement which differentiated between service-men and those who assisted the sick and wounded, and protected the latter.

The Italian health structure took shape gradually, taking as its model the French system from which it also borrowed numerous terms and expressions. Perhaps it might have been better had the chronic lack of financial means not prevented the putting into effect of so many projects. An autonomous structure was needed with a body of purposely-trained medical officers, in which the balance was struck between numbers and quality, together with a nursing corps which had the rudiments of professionalism. There is no doubt that the fact that at the outset of his career the salary of a surgeon was half that of a functionary in the civil service did not aid enrolment. But in 1805 the ratio of doctors to patients was 1:447, a fair ratio, although the author finds it low.

One of the consequences of the military health service — and in the book it

is given due emphasis — has been the gradual recognition that surgeons were equal to doctors, an idea taken from the French model, although it was fairly inevitable, both because of the belief that it was above all surgeons which the army needed and indeed in the list of medical officers they were in the majority — and because many of them had medical degrees too, a qualification which was indispensable to gain access to the higher echelons of their career. That surgeons were preferred to doctors, whose presence in the army Napoleon deemed absurd, shows that the health organisation was more concerned with treating the sick or wounded soldier rather than looking after his health. We do not read of studies and debates about improving diets, nor of marches and other vigorous military drills, and it is surprising that in the very years that Luigi Sacco was preaching vaccination, it was not compulsory for the enlisted.

Although there was a great demand for hospital admittance, it was only in 1802 that a military hospital was founded in Milan. A mere six years later Venice and Ancona had their military hospitals and in 1810 one was founded in Mantua. Many financial and political difficulties (autonomy from civil government) had to be overcome. Above all it had to be decided whether soldiers ought to have nursing care by right or whether their care was considered in the traditional way, an act of charity, as in non-military hospitals. However, the number of patients who needed to be hospitalised was always much greater than the capacity of the military hospitals so that the authorities continued to rely on civil hospitals and in some cases they had to resort to using rooms in private houses at the expense of the local communities.

One of the most vivid parts of the book is about the military hospital set up in the Carthusian convent of S. Ambrogio in Milan. Extreme over-crowding, inadequate ventilation, lavatories which did not always flush and were not sufficiently set apart, one bath to every hundred patients, very few stoves, one nurse to every 20 or more patients, were difficulties to be expected, and in any case they should be judged in the light of the sanitary conditions of the time. More foreign to our idea of a hospital is the practice of two patients to a bed, although this happened both in Italy and abroad, but only in cases of necessity and with some caution.

Per contra, the ratio of doctors to patients was 1:24/25, the food was satisfactory, despite thieving on the part of the warehousemen and other staff, and, all things considered, the Milan military hospital deserved greater recognition than many similar institutions. While stressing that the S. Ambrogio papers never mention fevers which break out in dirty hospitals, the author emphasises the numerous modern elements to be found in the papers, such as the generalised use of "visiting books" and later "historical charts" where the individual patient becomes the focus of interest, the investigation into epidemics, using the comparative method in statistics and above all the establishment of the principle that a hospital is a place where illnesses are treated, not where charity is dispensed to the needy.

Many chapters of the book are appropriately about the more widespread

diseases, even though not necessarily typical of the soldier, beginning with scabies, the war against which was definitely lost. The disease spread, despite ministerial instructions for its treatment, the use of mercury-based ointments, the isolation of patients in "scabies' rooms" and bathing (when firewood was available to heat the water). Just as hopeless was the fight against the so-called "contagious Egyptian ophthalmia", a trachoma which thrived above all in the filth of the barracks where lack of space forced soldiers to sleep three to a bed.

In other parts of the book we are given a very good insight into mental illnesses, both real and affected, and into those acute forces of psychic resistance to military life which went under the name of nostaglia. And yet the Italian soldier who was housed and clothed, who was fed every day, often with a portion of meat, who was noramlly subjected to great physical hardship, was likely to be better off than in the very home for which he was homesick. This is Forte Messina's bitter conclusion which of course should not be interpreted as praise for the military institutions of the Napoleonic period, but as condemnation of the wretched conditions of the population, from which conscripts were enlisted.

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J. A. GOLDSTONE, *Revolution and Rebellion in the Early Modern World*, University of California Press, Berkeley, Los Angeles-Oxford, 1991, pp.

The author of numerous studies on revolutions in Europe, Jack A. Goldstone in this book embarks upon a very wide-ranging work on revolutions and rebellions in Europe and Asia and their long-term causes. The author set himself the task of identifying the common factors in the state breakdowns which occurred in Europe and Asia over the centuries, of understanding their underlying causes and discovering why and when they could be considered revolutions. In his attempt to go beyond the Marxist interpretation according to which the underlying reasons for revolutions are to be found in the overturning of ruling social groups and in his attempt to go beyond the revisionist interpretation which sees the short-sightedness of the political élite as the cause of revolutions, Goldstone seems to latch onto the historiographical interpretation which Tilly first put forward in the 1970s: Tilly suggested analysing social conflicts in a wider context, which was characterised by the increased power of the state, and by changes in the relationship between civil society and the state. Following this trail, Goldstone comes to the conclusion that the periodical breakdowns in Europe, China, and the Middle East from 1500 to 1850 were the results of the same fundamental process whose

underlying trends were population increase and inflation, which put new demands on society that governments at the time could not satisfy. In fact there were two surges of state collapse, the first culminating half-way through the sixteenth century and the second half-way through the nineteenth century. But there was a long period between 1660 and 1760 during which, despite capitalistic changes and wars, neither the empires of the East nor the monarchies of the West experienced crises.

In fact the Revolution in England described in the second chapter, was not the only case of political unrest in Europe in the seventeenth century. In France, between 1640 and 1650 the nobles' revolts, the peasants' uprisings and the Paris rebellion — commonly known as the Fronde — drove the king far from Paris and deprived the Crown of its authority. In the same period the breakdown of the state in Spain affected mainly outlying areas like Portugal, Catalonia and the south of Italy. At the very same time, Turkey and China experienced similar crises, as Goldstone points out in the fourth chapter. In Turkey, between 1657 and 1658 Abaz Hasan Pasa founded a revolutionary government that caused the Empire to lose part of Asia Minor. In China the crisis which had begun at the end of the preceding period came to a head in the middle of the seventeenth century with the downfall of the Ming dynasty. In the eighteenth century, the French Revolution (the subject of chapter three) triggered off a long period of crisis which lasted throughout the first half of the following century and was punctuated by various revolutionary surges: in 1820 there were revolutionary movements in Greece, Spain and Naples; between 1830 and 1834 there were rebellions in France, Belgium, Poland and Ireland; between 1847 and 1852 revolutions broke out in France, Italy, Germany, Austria, Hungary, Bohemia, Switzerland and Romania; and in 1860 it was the turn of Japan.

Government fiscal crises, internal conflict among the élite, more frequent popular rebellions and the birth of new ideologies were the most obvious signs of a state's breakdown. Population increase and pressure from inflation undercut national budgets which entered long periods of deficit. For example, the fiscal crisis of 1640 in England was not speedily overcome. It had revolutionary implications because its roots were sunk into the failure of an entire fiscal structure which was unable to keep pace with about 150 years of inflation. In France, too, the fiscal crisis of 1787-1789 had deep roots: fiscal revenue had not increased with trade and industrial expansion and inflation had eroded the real value of taxes. France's finance problems were largely determined by the Crown's continued dependence on fiscal revenue from agriculture, a sector hit by the fall in per-capita production because of population growth.

Those sections of the book dealing with the crisis of the state emphasise the link between economic processes and institutional changes, between changes in economic structures and the day-to-day business of governing. These sections could not have been written without the immense historiographical work carried out in recent decades by the more advanced schools of the history of the

state. The analysis of trends and methods relevant to the study of the modern state in Europe carried out by Mousnier, Vives and Maravell (to quote only a few) show that the dichotony between the formalistic and excessively technical descriptions of political and administrative institutions and more general socical development (which had left a deep mark on classical historiography) has been overcome. In more recent historiography the state is no longer an abstract juridical structure but has a role of mediation between society and politics, between economic choices and political choices. And the connections between social and economic organisation and the real dynamics of power are analysed. So research in recent decades has deeply flawed the vision of a state functioning as a self-regulating system, as a political structure which greatly influences social organisation. On the contrary, it is society which seems to invade the state, the institutions, and the central and peripheral power structures.

From the seventeenth century onwards the situation regarding the internal conflict amongst the élite changed. Increasing displacement and turnover owing to population increase and inflation were added to the traditional mechanisms of social mobility through which the upper classes absorbed new members. According to some estimates the number of families of the gentry (a class characterised by strong upward mobility) increased from 6,300 in 1540 to 16,500 in 1600 and 18,500 in 1640 and became stable in the following century. Sustained inflation accompanied population growth: the landlords who succeeded in increasing their income or the yeoman tenants who, although paying fixed rents, sold their products on the market at higher prices, managed to benefit from inflation. However inflation was detrimental to those whose situations had been reversed. In France, too, the conflict was more complicated than mere opposition between the aristocracy and the bourgeoisie, between revolutionaries and reactionaries. Before the Revolution, the groups which fought over the selection of representatives in the States General between 1787 and 1789 consisted mainly of provincial nobility, priests, lawyers, notaries and local government administrators.

The analytic perspective chosen by Goldstone greatly influences his interpretation of the nature of popular revolts. In the old vision, for example, enclosures in England were regarded as an arbitrary abolition of the common rights belonging to the small peasant farmer and led them to defend those land rights they had enjoyed from time immemorial. However, according to Goldstone, the main source of rural uprisings did not lie with the inhabitants of the common lands which were later enclosed. Population growth, had, in fact, deeply changed England; cattle breeders and landless artisans who lived in forests, marshes and on common land were the main protagonists of tumults and riots. Before the French Revolution, those who took part in revolts were the poor, the elderly, orphans, the unemployed and victims of famine. But in Turkey and China rural rebellions could not be seen as mere peasant uprisings or revolts against taxes. In Asia Minor, for example, the revolts were led by unemployed mercenaries and provincial magnates trying to improve their status

by asking the central government for titles, prestigious positions and other forms of recognition. Similarly in China, although very many peasants took part, it was the soldiers who had deserted from the northern armies who led the rebellions.

However, it should be noted that Goldstone's demographic-structural interpretation of popular revolts is rather weak and substantially manipulated to prove its validity. In fact it does not seem to take into account very recent research and the wealth of theories that some historians have brought to this school of studies. Moving away from the instinctive and the strictly economic point of view, Moore, Thompson and Tilly (Goldstone quotes them but does not focus on the more salient aspects of their research) have shown how socio-political issues, questions of public order, contemporary values and local cultures all played a part in social conflict. In South Italy, for example, in the latter part of the eighteenth century widespread social conflict developed and took the form of both violent rebellion and legal litigation. In this respect, it could fall into Goldstone's definition, being largely determined by population growth. However, it was a very complex phenomenon in which landowners were against peasants, communities were against one another, big cattle breeders against small ones, local government administrators against the population and so on. It is therefore difficult to accept Goldstone's analysis of these conflicts. Perhaps he should borrow Moore and Thompson's interpretation: according to them, social conflict embodied an idea (shared by everyone) about what is right and what is wrong and had its own specific legitimation. Even the most violent and anti-institutional social conflicts took place in a well-defined context of reciprocal obligations which tied together all the social classes in the countryside and in the city and the latter to the governing bodies. These were laws not written into constitutions or codes but very familiar to those who defended the constitutional order or who rebelled against it. And so, behind what seemed to be social tension and anarchical conflict, in actual fact there was a constant attempt on the part of those who governed and those who were governed to define the limits of obedience and disobedience.

If, therefore, population growth and price increases were the determinant factors in the crises which western monarchies and eastern empires underwent during the modern age, the problem still remains: where should we draw the line between breakdown of the state and revolutions, between general dissatisfaction and radical changes in political and economic institutions? This is one of the book's aims, but the author does not seem to come to grips with the problem. To answer the question, Goldstone emphasises ideological factors, which he deals with in chapter 15. Although this was not important in determining the crisis, they played a decisive role in rebuilding the state and in the stages following the breakdown. According to Goldstone, there are various criteria for assessment. If the yardstick is an ideological break with tradition, only Puritanism and the French Revolution can be considered real revolutions,

whereas those in China, Turkey and England in 1688-89 cannot. The Japanese, however, come between the two because they defended their emperor but abolished the samuarai's status. But if these events were judged according to the degree of change in political institutions and in the agrarian class structure, the Meiji Restoration would be the most revolutionary and the 1640 Revolution in England the least. The Ming, the Ottoman and the French crises had roughly the same revolutionary results. The English crisis of 1688-89 had a lesser revolutionary outcome and thus would be between the Japanese revolt and the 1640 English revolution.

Despite the fact that it is based strictly on secondary sources and so does not make use of first-hand archive material, and despite the aforementioned perplexities, the book has a stimulating and original approach. The author succeeds in mastering an immense amount of reading matter and in mixing language, methodologies and themes which traditionally belong to very different disciplines: demography, sociology, history of finance, political history, the history of agriculture and the history of prices. Here, therefore, is a synthesis of the most significant results of worldwide historiographical literature in the last century, from the great macroanalytic works to microhistories and research into local history. But, above all, it is an attempt to go beyond a rigid unilateral vision of history, a warning not to attribute to events unequivocal causes which do not take into account the deep-seated connection between economic processes and institutional changes, between social and ideological changes and between the slow changes in economic structures and major important political events.

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W. R. LEE (ed.), *German Industry and German Industrialisation. Essays in German Economic and Business History in the Nineteenth Century,* London and New York, Routledge, 1991, pp. xii-322 with tables and diagrams.

This collection of essays aims both to provide a general overview of the main issues related to the history of the German economy in the nineteenth and twetieth centuries and to present trends and new ideas in methodology. It is certainly very useful for introducing non-German readers to a debate which is not widely known but is of great interest as far as the comparative history of European industrialisation is concerned, although the subject matter is not always original and related to issues of equal importance and so the overall effect is somewhat unbalanced.

The book opens with Lee's very substantial essay, of which we shall say more later, which is a synopsis of the debate about German industrial development. The other contributions follow in chronological order. The first essay, by Rainer Fremdling — "Foreign Competition and Technological Change: British Exports and the Modernisation of the German Iron Industry from the 1820s to the 1860s" — discusses when and how technological innovation occurred in the early phase of German industrialisation. The case of the iron industry shows that innovation was not a mechanical and rapid development in the transition from stage A to stage B but was a gradual process in which new technologies were for a long time interlinked with old production practices. Contact with the international market and especially with Britain had no inhibiting effect on the German economy: Fremdling confirms the neo-liberal thesis already proposed by Pollard that the importation of semi-finished goods acted as a growth factor for German industry, helping to overcome its weak spots in the short term and in the medium term promoting the imitation of new technologies.

Dumke's essay on the *Zollverein* ("Tariffs and Market Structures: The German *Zollverein* as a Model for Economic Integration") analyses the same period but from a different perspective. It is an original contribution and is the most stimulating from a methodological point of view. Again, a thesis which has already been advanced in German debate — especially by R. Tilly — is developed with the aim to supplant the old idea of the *Zollverein* or tariff union as a prerequisite for Germany's political unification which was based on a mistaken *post hoc, propter hoc* logic. Dumke re-examines the *Zollverein* in the light of the theory of institutional change and of the concept of optimal jurisdiction, and sees the main reason for the tariff union in the fiscal benefits which were to accrue to the member states: the *Zollverein* was to bring about an increase in public revenue without the need to increase taxes, which would have been unpopular and politically unwise in the post-Napoleonic climate. Leaving aside his conceptual sophistication, Dumke's main contribution lies in his having carried out was wide-ranging analysis of such a complex phenomenon as the *Zollverein,* which was based neither wholly on economic reasoning nor on pure political calculation but rather on a combination of factors in which fiscal, economic and political issues collectively have a dominant role.

The subsequent essays analyse different aspects of the later period of German industrialisation, from unification to the first World War, which coincided with the second industrial revolution in chemistry and electricity, sectors in which Germany was to gain a position of hegemony, depriving Britain of her primacy. W. Feldenkirchen's contribution — "Banking and Economic Growth: Banks and Industry in Germany in the Nineteenth Century and their Changing Relationship during Industrialisation" — addresses a problem which, despite its being one of the keystones of the Gerschenkronian paradigm, still requires further empirical testing. From Feldenkirchen's reconstruction, it appears that banks did not have a very significant role in the early phases of

German industrialisation and that subsequently, at the end of the nineteenth century when the joint-stock model of banking took on a decisive role (but again Germany's specificity here should not be overestimated), industry's relationship with banking was not based on dependency but rather on reciprocal support and influence.

R. Tilly's essay on "Cyclical Trends and the Market Response: Long Swings in Urban Development in Germany, 1850-1914", introduces the reader to two aspects to the debate about industrialisation which are typically German: the focus on urban development and its relationship with the nascent workers' question and, from the point of view of methodology, a renewal of interest in the history of the conjuncture. Using the long — swing category with very careful statistical investigation, Tilly analyses the factors underlying immigration from the countryside to the town, as well as the relationship between demography and housing and its role in determining the considerable urban growth that occurred in this period.

A well-documented essay by J. Krengel, "Sectoral Performance and Economic Development: The Backward Linkages of the German Pig-Iron Industry, 1871-1913, as a Factor in Macro-Economic Growth" shows that the importance of the pig-iron sector for industrial growth was due mostly to indirect linkages and warns against the simplifications of aggregative studies. An essay by Schaefer on the electrical sector, one of the key factors in the German industry's great leap forward at the end of the nineteenth century, concludes the analysis of this period with reference to Baden, Bavaria and Wurtemberg. Through a careful presentation of the regional studies under consideration, the author highlights the differences between the regions as to when electrification was carried out and the relationship between private and public enterprise.

Two essays deal with the first half of the twentieth century, a dramatic period in German history. The contribution by G. Plumpe, an expert on the history of I.G. Farben, one of Germany's top companies which had strong connections with Nazism and was broken up into various smaller companies in the aftermath of the second world war, is a perfect example of business history ("The Political Framework of Structural Modernisation: The I.G. Farbenindustrie AG, 1904-1945"). Plumpe gives an outline of the main events involving the company, with special focus on its relationship with the Nazi regime. The close alliance between industry and the state, Plumpe points out, was not a characteristic unique to I.G. Farben or to Germany industry in general but was common to many other European countries in the delicate period between the two wars. Yet economic interests brought IG Farben to forge very close ties with the military regime (the use of prisoners from concentration camps is the most striking example of this). Nazism cannot be explained by economic variables; from the very beginning its pursuance of power politics created opportunities for industries like IG Farben, which were outside the market.

In a short essay on the 1920s C.L. Holtfrerich examines the German

response to the 1920-21 depression ("Germany and the International Economy: The Role of German Inflation in Overcoming the 1920-21 United States and World Depression"). The author's thesis is that without Germany's inflationary reaction the 1929 world crisis would have occurred ten years earlier.

The last essay in the book is M. Roseman's contribution about the early post-war period. These were years of great uncertainty when the conditions of Germany — impoverished and divided among the allies — would have scarcely led one to have predicted the subsequent recovery ("Occupation Policy and Post-War Reconstruction: British Manpower Policy in the Ruhr Coal-Mines, 1945-1947 and West German Economic Recovery"). British policy was contradictory in its objectives (on the one hand it wished to make Germany weak and ineffective, on the other it wanted to revive Germany's coal production which was indispensable for the European economy), but in practice it created extremely favourable conditions for the Ruhr miners and supported coal production, an essential prerequisite for the rapid reconstruction of West Germany in the early years following occupation.

All in all, many important issues concerning the history of the German economy in the nineteenth and twentieth centuries are addressed in this work, although with differing results and with varying degrees of originality. The task of making a synthesis is left to Lee in his introductive essay, which is definitely recommended to the reader for its detailed and thorough presentation of the state of the art. Lee's starting point is his acknowledgement of the backwardness of German economic history, which he sees as paradoxical in view of the proclaimed centrality of economics in shaping, for good or for ill, German history and which is so evident in issues like the *Sonderweg* and its more sophisticated version, the Gerschenkronian theory about latecomer countries. This collection of essays is itself an indication of the liveliness of German debate which at times focuses on highly original issues, such as the housing problem, and shows renewed or tardy, it hardly matters — interest in cliometrics (a unique fact in international historiography), reelaborating its most useful concepts and discarding its excesses. The history of Germany's economy in the nineteenth and twentieth centuries is therefore far from dormant, unless the intention is that of getting embedded in extremely technical and specialist economic history, when it is precisely the fusion between economic and social history according to the best *Sozial-und Wirtschafts geschichte* tradition which is the most convincing feature of German debate.

Apart from such considerations, the debate on German industrialisation emerges in all its vitality, leaving aside its purely descriptive value. Gerschenkron's theory, which denies the generalised applicability of the English model and insists on its being unrepeatable, was a first step towards a general rethinking of the old interpretation. The "pluralistic interpretation of German industrialisation" proposed by R. Tilly (Florence Conference on Industrialisation, 1981), which is quoted several times in these essays, was a further step towards the disarticulation of the old model in favour of

a pluralistic approach to the problem. Despite their being heterogeneous, and above and beyond the single intentions of the authors, the essays in this collection themselves all show that attempts to explain the great transformations of our modern era, of which industrialisation is an implicit part, on a purely economic basis have by now given way to a pluralism of approaches and issues unified by the interdependence of economic, political and social factors. In this respect, historians are now seriously questioning the role of *Sonderweg* while the role of moral responsibility is once again taking on importance in our reading of the more dramatic events in German history.

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P. MATHIAS-J.A. DAVIS (edited by), *Innovation and Technology in Europe. From the Eighteenth Century to the Present Day*, Blackwell, Oxford (UK) & Cambridge (USA), 1991, pp. 192.

The technological innovations associated with the Industrial Revolution have been long interpreted as the almost automatic response of the market to the availability of human and natural resources and technical and scientific knowledge. Yet empirical research carried out on the subject has shown that the issue is much more complex: the scholar who now wishes to examine any issue related to the Industrial Revolution, has necessarily to ask himself which factors encouraged the development of technology and to consider the relationship of interdependence between such factors and productive processes and their effects on the economic progress of society.

Since at the present state of research, it would be scientifically incorrect to provide definite answers to these questions, the book under review, edited by P. Mathias and J.A. Davis, which gathers together the material of a seminar held in 1986 in the Centre for Social History at the University of Warwick (UK), sets out to compare and discuss the results of the seminar and the ideas put forward in several more recent studies on the subject.

As the editors point out in their introduction, the doubts raised about the validity of the old interpretation has made it necessary to reexamine the role of technological innovation during the Industrial Revolution. Thus, in the opening essay dealing with the development of technology in western Europe between 1750 and 1850, P. O' Brien begins by recalling that there is no accepted definition to explain the progress in production technologies (a market response to the urge to maximise profit according to neoclassical thinking, a discontinuous process for science historians, a gradual and progressive one for

Marxists etc.) and goes on to analyse the relationship between innovation and market pressures, that is, between demand and supply.

Each new technology which aims to meet a specific need may, of course, satisfy a kind of demand, but this very general observation not only fails to explain the time lapse — which in some cases was considerable — that often occurred before a technological innovation was applied to a productive cycle, it neither explains why such an innovation was produced in Britain and not in Holland where the pressure from demand may have been equally strong.

Similarly, the availability of resources, the means for promoting technological research and professional training services, may have encouraged innovation, but at least until the second half of the nineteenth century, the supply of such resources and services was not formally institutionalised, and their influence is difficult to quantify.

A very good example of the difficulties posed by the study of technological innovation in the industrial revolution is given by P. Mathias in relation to the steam engine, in his essay on technology and resources.

Considered the symbol of the synergic relationship which developed in the eighteenth century between scientific knowledge and the productive needs of the market to promote the economic progress of society, the internal combustion engine actually became diffused only when the construction problems hindering its commercial exploitation had been solved by highly-skilled artisans devoid of any kind of scientific training. Moreover, it was Watt himself who, through his patent, slowed down attempts to improve his invention, and who had serious doubts as to the possibility of applying steam energy to rail and water locomotion. Thus at the beginning of the nineteenth century Boulton and Watt's models were already outdated and supplanted by engines which in the course of a generation had been modified according to the practical needs of production.

The existence of technologically-advanced areas within a system which comprises less developed or backward areas is connected to the much wider problem of interpreting the industrial revolution as a dualistic process of economic development. N. Crafts, J. Mokyr, J. Williamson and other historians use this theory to explain the low growth rates of productivity shown by manufacturing in Britain up until the mid-nineteenth century, which on the basis of calculations made by the same authors refute the figures previously arrived at by Deane and Cole. However, as Berg points out in her critical overview, these historians use a very restrictive definition of innovation which is little suited to examining the effects of the new technologies in this period and the variations in the ratio between capital and product. Moreover, the figures used to support their theory are not totally convincing since they derive from sources which do not always reflect the real productive situation up to the 1850s (for example, only figures on male adult employment are considered important for analysing employment).

Regarding the development of the United Kingdom's productive structure

in the twentieth century, R. Whipp emphasises the interdependence between the introduction of technological innovations and strategies in planning and developing production at the company level, while D.H. Aldcroft investigates to what extent the decline of Britain's industrial power depended on the changing role of technological innovation caused by by social, political and institutional factors.

In more general terms, the influence that such factors can have in the renewal of production technology is examined in the essays by G. Lewis on the mining industry in south-east France at the end of the eighteenth century, by J.A. Davis on the factors hindering technological development in Italy in the nineteenth century and by V.R. Berghahn on the psychological obstacles to using technology for mass production in Germany in the first half of the twentieth century,

The book concludes with an essay on economic theory by P.L. Stoneman, who examines some principles which might be useful for formulating a theoretical framework to explain the spread of technologies. Leaving aside formal considerations, the inclusion of this contribution is eminently justifiable on scientific grounds: at a moment when theories about this subject are undergoing a thorough revision, Stoneman's essay provides an interesting introduction to a new methodological approach which differs from and, at times, is in conflict with, the traditional historical interpretation of economic problems.

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