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## REVIEWS OF BOOKS

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R. A. BUTLIN (ed.), *The Development of the Irish Town* (Totowa, New Jersey: Rowman and Littlefield, 1997), 144 pp., index.

The editor of this small but rewarding volume notes in the preface the curious lack of study of Irish urban patterns. Because of its unique history and character Ireland does offer a very interesting contrast to European and American settlement formations. For most of its history a clan society, yet open to a wide variety of influences as an island, the growth of the Irish economy and society were distinctive. The limited bibliography of modern studies of Irish settlement forms is probably attributable to the domination of academic and intellectual life on the island by imperialist thought and administration.

In the history of human settlement, aggregations of an irregular and perhaps indistinct character have been more common than the more orderly and geometric forms of community construction that the West adopted from Greek and Roman models. Ireland is a good place to examine this phenomenon. It is one of the stereotypes of Irish studies even today that the island had no urban history before the Normans except for a few Viking trading settlements at the river mouths. R. A. Butlin, Senior Lecturer in Geography at Queen Mary College, University of London, opens this book with a review of proto-urban settlements in Ireland before the late medieval Norman military penetration in the twelfth century. What this review reveals is that a vast system of ring fort settlements with religious and defence purposes dotted the island in pre-Christian times. Some of these circular strongholds and their associated communities were massive, and with the coming of Christian monastic communal forms after the fifth century

A. D. many of the same sites were retained as centres of population and cultural leadership. Thus, while Roman forum, temple and fortress did not penetrate to Ireland, a native urban pattern of a limited but widespread form was present, and this decentralized proto-urban way of life deeply influenced the island's development.

An essay by B. J. Graham skilfully uses computer analysis of density ratios to relate medieval Irish towns to agricultural wealth and other factors. The Norman fortification of settlements on behalf of the English Crown was especially important with respect to port cities and river routes. The Gaelic culture with its pastoral and clan organization persisted outside of the Norman settlements. In the immediate environs of the Norman-English fort towns the Gaels and surviving Vikings were settled in semi-segregated quarters such as Ostmanstown in Dublin and the various "Irishtowns" outside medieval city walls. The lack of accurate medieval population statistics is recognized, but the tremendous blow to urban forms dealt by the Black Death in 1349 is made clear.

The editor provides an essay on sixteenth and seventeenth-century Irish towns, and this period shows the use of the town as a vigorous and conscious form for imperial conquest of Ireland. The geometric military towns designed to reinforce rural colonies of English and Scottish adherents of the Crown transformed the island. The parallel with much of early American settlement is clear, but unlike America, the fierce warfare of the 1600's in Ireland all but halted the growth of town forms. In marked contrast to Europe, Ireland thereafter added few significant towns.

The final essay by T. W. Freeman, to whom Ireland owes a great debt for geographic scholarship, deals with eighteenth and nineteenth-century growth. The addition of roads and railroads linked older towns, but towns growing out of the demesnes of large landholders, improved market towns, and the growth of Dublin and Belfast marked the period. Despite a calamitous drop in population due to famine and emigration, Dublin and Belfast grew. Belfast represents still the most industrialized portion of Ireland, but its tradition of religious segregation has given it a notorious record of failure as a functioning human community. Aside from the two major cities, the remaining cities continued to serve as markets and ports for an agricultural hinterland.

This book is briefly and compactly written, has excellent maps with appropriately simplified detail, and adds to the limited knowledge of an enticing subject. An essay on the twentieth century would have been most desirable, since it is in the last fifty years that the greatest changes have occurred in Irish urban life in historic times due to political independence of most of the island and growing economic change for its people.

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J. DE VRIES, H. DE VRIES, A.C.A.M. BOTS e.a. (eds.), *Ondernemende Geschiedenis. 22 oopstellen geschreven bij het afscheid van Mr. H. van Riel als voorzitter van de Vereniging Het Nederlandsch Economisch-Historisch Archief*, 's-Gravenhage: Martinus Nijhoff 1977, pp. 390.

It is impossible to offer a wholly systematic review of the present volume. H. van Riel, the well-known Dutch national politician, has been the enterprising Chairman of the Vereniging Het Nederlandsch Economisch — Historisch Archief for the past seventeen years. This is an important national association in the Netherlands, whose activities and functions cover a large field of economic history, particularly Dutch business history. The opportunity of paying tribute to the eminence of Van Riel as a historian was offered by his decision to resign in favour of a younger person. An organising committee thereupon invited all members of the association, professional and non-professional economic historians, to contribute an article on a subject of personal or historical interest.

The result is this excellent edited collection of 22 selected essays. Its contents range from the Dutch export of kippers to Soviet Russia by Dr. H. A. H. Boelmans Kranenburg to the introduction of steam-power in the Netherlands by Dr. K. van der Pols. Other contributions include a well-written compilation of the views of Max Weber, George Simmel, Friedrich Meinecke, Jan Rimein, Johan Huizinga and others on the subjectivity of historians. Brugmans concludes that there is no absolute objectivity — not a startlingly new conclusion — but only a sort of 'refined subjectivity', which might be called 'relative objectivity'. Other interesting pieces concern the origins of the terms "guild" and "handicraft" (Dr. L. H. Bruins); fraud in the eighteenth-century book trade (Dr. I. H. van Eeghen); the Netherlands and the "Seehafenausnahmetarife" during the Weimar Republic (Dr. J. Versepunt) and the commercial policy of King William I concerning Dutch trade with China (Dr. F. J. A. Broeze). It cannot be said that all the contributions, particularly those written by non-professional historians, fulfill the expectations of modern academic historiography: there is too much purely descriptive and antiquarian work and too little discussion of historical controversies and systematic bibliographical research. The wider merits of the book owe much to the contributions of Brugmans and also to T. S. Jansma, P. W. Klein, H. F. J. M. van der Eerenbeemt and Joh. de Vries, as well as to Dr. R. I. Griffith.

De Vries' paper is remarkable because of its well-balanced composition and its subject. The study of pressure groups by historians has not yet become a main subject of interest in the Netherlands, which gives a pioneering aspect to this analysis of three non-parliamentary campaigns on the Dutch

social and economic scene in the years 1901, 1911 and 1925. Van den Eerenbeemt describes the efforts to lay the foundations of a sericulture industry in the reign of William I during the first half of the XIXth century. Although these initiatives did not succeed in the end, they reveal that there was more to Netherland's history at this time than the oft-cited Dutch apathy and gloom. Klein has written a very perceptive analysis of the relationships between demand, supply and prices of rye on the Amsterdam market in the period 1624-1720, while Jansma's contribution on the economic position of Dordrecht in the XVIth century is a brilliant example of how much can be revealed by scanty archival data. Finally, the contribution of Dr. Griffith on the role of taxation in influencing the level of wages in the Dutch economy in the first half of the XIXth century raises a question. Is it adequate to conclude that taxation must be considered a critical factor in raising the level of money wages in the western provinces to a level above that in most neighbouring countries without considering possible differences in Dutch provincial taxes and without studying the tax systems in the neighbouring countries?

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A. DOMINGUEZ ORTIZ, *Sociedad y Estado en el siglo XVIII español*, Editorial ARIEL (Barcelona 1976), p. 532.

In recent years there has been a growing interest amongst Spanish historians in the problems which arose from the attempts at industrialization and the difficulties which confronted the country in the transition from the Old Economic Regime to the New.<sup>1</sup> The authors who have studied these problems all agree that traditional forms of economic organization put up sustained resistance to the wave of industrial innovations which occurred in the first decades of the 19th century — the Cortes of Cadiz, the attempts to introduce industries in Andalusia, the development of the Catalan textile industry. Resistance of this nature was an obstacle to the transformation of economic and social structures which would have constituted the necessary premise for Spain to have taken part in the process of expanding industrialization then being experienced throughout Western Europe.

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<sup>1</sup> It is sufficient to mention only the works of J. NADAL, *El fracaso de la Revolución Industrial en España* (Barcelona, Ariel 1975) and of J. FONTANA, *La quiebra de la Monarquía Absoluta 1814-20* (Barcelona, Ariel 1974).

But so far this conclusion has not led to any detailed analysis of the resistance, and in our opinion its roots are to be found in the events of the previous century. Whereas the Enlightenment signalled the dismantling of the *Ancien Regime* in economic, social, and political terms elsewhere in Western Europe, in Spain it was to lead only to some very timid projects of reform, the majority of which were never realized and which, even if they had been, would hardly have altered in any substantial sense the fundamental structures of that society. The principal interest of the present study lies in the fact that it deals with the limitations and contradictions of the Spanish Enlightenment. It also provides an analytical description of the various facets of Spanish society in the XVIIIth century.

As is suggested by the author's title, the study identifies two strata in Spanish social life in this period. On one hand there is society, together with its multiple components — the nobility and the higher clergy at the top of the power structure, the urban classes who were the most sympathetic to the attempts at innovation and change, and finally the rural classes who were still wedded to the most traditional forms of economic organization. On the other hand, there was the State which did not express the interests and aspirations of the different groups within society but only those of the narrow oligarchy which we have mentioned, with the result that it evolved only partly in parallel with changes in society. This explains why it was that despite the awareness shown by certain ministers who had been exposed to the influence of the Enlightenment and which took the form of various projects and attempts at agrarian or penal reform, the separation between Society and the State became ever wider until it reached the point of total break-down during the period of the Napoleonic Wars.

The study is divided into three parts. The first covers the first half of the century, in other words the reign of Philip V. The history of Spain in the XVIIIth century begins with the War of the Succession and the change of dynasty which concluded the conflict. It was a war which had features which were at the same time both civil and international. Catalonia and Valencia supported the Austrian pretender, while the Kingdom of Castile supported the Bourbon claimant. The conclusion of the war brought with it the defeat of those regions which had sided with the Archduke Charles in the hope of retaining their own administrative structures. But such hopes fell with the triumph of Philip of Bourbon and the proclamation of the *Decreto de Nueva Planta* in 1716 which extended the Castilian legal and administrative system to the rest of the peninsula controlled by the Kingdom.<sup>2</sup> The ending of the war and the establishment of the new Bourbon administrative system, which was more efficient than that of the last Hapsburgs,

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<sup>2</sup> The Basque Country and Navarre still preserved their own laws which were embodied in the *Fueros*.

brought about a degree of revival and enabled the country to overcome the dramatic economic and social conditions into which it had fallen at the end of the XVIIth century and which were still evident in the first decades of the next. Symptomatic of the revival was the evidence of the first signs of intellectual activity, represented best in this period in the work of Padre Feijoo. Possibly the economic revival might have been more broadly based had the greater rigour which was introduced into controlling public administration been extended to include greater prudence with regard to sumptuary expenditure — a number of palaces for the royal family were constructed — and above all a greater awareness of Spain's reduced role in Europe, and hence also of the limitations surrounding any military adventures. But Spain's involvement in the war of the Pragmatic Sanction and the Seven Years War simply sucked away resources which would have been very useful for the treasury.

The third part of the study covers the reign of Ferdinand VI, Charles III and Charles IV. Ferdinand VI's reign is seen as a period of transition between the first part of the century which had been dominated by problems relating to the change in dynasty and overcoming the crisis which had afflicted the country in the final years of Hapsburg rule, and the new period beginning in 1759 which was dominated by Charles III and his ministers who were to embody the impact of the Enlightenment, albeit in the cautious garb which that movement assumed in Spain. Although the reign of Charles III saw less involvement in international adventures than that of Philip V, it was richer in social and administrative developments. The administrative team through whom Charles III ruled had been considerably influenced by the ideas and beliefs which were becoming current in the more advanced countries in Western Europe. Their administration was marked by these influences, and there were even attempts to modernise the country and remove some of its principal plagues — the abuses of the feudal system, the very primitive state of agriculture, the excessive burden of ecclesiastical law — which stood in the way of the development of Spanish society. But the initiatives of these administrators were blocked both by the power of the feudal aristocracy, who still held excessive power in Spanish society, and also by their own fear of attacking any of the really fundamental aspects of Spanish society. In other words, the reform of Charles III's ministers were always designed to be effected within the circumstances of "existing legality", and in fact the practical consequences of the major attempts at reform introduced in the period, the agrarian and penal reform projects and the reform of local government, were all very slight. On the other hand, the influence of the same reforms on the attitudes of the enlightened minority were perhaps greater, and they came to understand some of the country's major problems. But Spanish society did experience major changes. The nobility and the upper clergy resented the Bourbons'

centralist policies, and the urban classes, together with some rural sectors in the peripheral regions, benefited from the improvements in administrative efficiency and from the expansion of trade which was occurring as a result of technical progress.

During Charles IV's reign the tensions which had been building up in the previous years began to come to light more openly. Popular opposition to the Crown was expressed in the *Motin de Aranjuez* which brought to an end the reign of Charles IV and more especially the power of his prime minister Godoy, while the new attitudes of the educated minority began to form a new political and cultural movement which was to culminate in the Cortes of Cadiz (1812) which marked the beginning of the liberal movement in Spain.

Between the first and third parts the author has also inserted a number of chapters entitled "*The Spanish Mosaic*" which are devoted to different regions, to their peculiarities, and to the different ways in which they developed. Overall, it is clear that whereas on the perimeter, and especially in Catalonia, there was a degree of development in both agriculture and commerce, the regions of the interior remained locked in the past and showed little if any response to the changes taking place elsewhere. For any major change to occur in the social and economic structures of these regions another century and a half was to pass. It is this second part which, in our view, contains the most original contribution in this study. These chapters show the diversity of systems which made up the Spanish whole, which itself explains at least in part the development of Spanish politics thereafter although this is something which has too often been neglected in certain established schools of historical explanation.

Dominquez Ortiz's study covers the multiple aspects of political, social and economic life in the XVIIIth Century Spain. However many of the major problems, such as the agrarian reform project, and the development of agriculture, the growth of trade with Latin America, the first beginnings of manufacturing industry, need to be studied in much more detail than has been attempted here.

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R. L. EHRLICH (ed.), *Immigrants in Industrial America, 1850-1920*, University of Virginia Press, Charlottesville, Va., 1977, pp. xiv+218.

As John Modell remarks in his engaging summing up of the papers in this volume, most of the writers agreed that ethnicity was important in American industrialization. Little attention is given to that industrialization. Interest is focussed on the way in which traditions, values, goals and ex-

perience brought by immigrants to the States governed their adaptation to industry. Like the ante-bellum slave, the European immigrant is gaining a renewed dignity by being presented as exercising a measure of control and choice over his life and work. This is history from below. Immigrant manual workers alone receive attention. In spite of an industrial society pictured by most of the contributors as affording starvation wages and uncertain employment under cruel conditions, the ethnic group and the family reacted, endured and triumphed. The tendency to a new romantic filio-pietism is evident in several essays, although warnings are sounded by Modell, by Tamara Hareven and by Theodore Hershberg, each of whom suspects that the reaction to the melting pot assumptions may go too far and equally distort past reality.

The essays were presented as papers to a Conference organized jointly by Eleutherian Mills-Hagley Foundation and the Balch Institute in November 1973, and planned with the help of Professor Herbert Guttman. Not all the essays read with the freshness of first encounter since some are based on research whose findings have already been published elsewhere. Nevertheless, this is a useful compendium of some recent research, including a number of doctoral dissertations of the seventies. The essays have a strong revisionist tone and message; but for all the concern with European background, no one tries to answer such questions as: Was American industrialization different from European because of immigration? or Did Europeans in American industrial cities have a different experience from their counterparts in European cities?

Four of the paper deny that immigration and industrialization destroyed the family. Stressing the malleability of the family, to borrow the term used elsewhere by Hareven and Modell, as an instrument for retaining customary values and securing desired ends in the American industrial environment, four women examine particular patterns of women's work and the employment of children and young people. Caroline Gotlag's article about Philadelphia immigrants is a paean of praise for the Polish family, staunchly independent, it is said, throughout the Great Depression of the 1930s. She somewhat ungratefully draws on Thomas and Znaniecki for evidence as to Old World Traits while "with all due respect" she oversimplifies and distorts their conclusions to castigate them for failing to see that the Polish family would be reconstituted during the next fifty years. The same somewhat unhistorical treatment mars her use of evidence about women's employment drawn from a survey covering the years 1914-20. She asserts that industrial employment in Pennsylvania during these years was typical of the rest of the nation, "erratic, irregular and unpredictable", but fails even to comment on the unusual features of these years.

Whereas Polish women in Philadelphia preferred domestic work, the Irish women of New York City's Sixth Ward took in boarders to make ends

meet while looking after their families, according to Carol Groheman's study from the New York State census of 1855. French Canadian families in the cotton mills of Manchester, N.H., examined largely from surviving company records by Tamara Hauven, used the labour of daughters in the mills in such a way as to secure occupational mobility for their sons. Supplementing contemporary sources with interviews, as does Miss Golab, Virginia Yans-McLaughlin shows how migrant farm labour and canning factories enabled some of Buffalo's Italian families to adapt to the seasonality of the work of their men who preferred to retain family cohesion and control of children at work. All that these writers claim is that, to some extent, responses of groups were based on ethnicity, as does Lawrence Glasco in his more rigorous study of Buffalo's employment patterns in 1855.

Other papers examine certain traditional influences in other contexts than the family. Douglas Shaw's interpretation of sources of Irish political activity in Jersey City is perhaps more conventional in viewing conflict between immigrants and the host society as the source, though he too stresses the continuity of regional attachments from Ireland and in the new setting. David Montgomery and Michael Gordon are searching for distinctions between traditional, pre-industrial responses and what they regard as modern working-class mores. In a provocative study of corporate welfare, personnel and scientific management policies as responses to successful efforts by immigrant workers to retain control of their work situation, Professor Montgomery does not seem to have decided whether the immigrants wanted intensive bouts of work or steady employment; but he does identify the craftsman's refusal to work while observed and output ceilings on piecework as modern working-class mores. Even more schematic is Gordon's distinction between the social boycott against other workers as arising from the Irish countryside and the economic boycott against employers as indicating a "shift in consciousness created by increasingly industrialized society". Well may Professor Modell ask whether ethnicity was a mere interlude on the way from *Gemeinschaft* to *Gesellschaft* — or in a Marxist stage schema. The works of E. P. Thompson, Eric Hobsbawm and Michael Anderson, concerning a society with few immigrants, are cited repeatedly.

The rest of this volume has more to say about the process of industrialization in the United States, though also in relation to immigrant workers. Theodore Hershberg, Bruce Laurie and George Alter, drawing on the resources of the large-scale computer study of Philadelphia census and other sources, and Slyde Griffen in his work tracing individuals over time from Poughkeepsie sources, have abandoned the occupational rankings used by pioneer students of social mobility from census manuscripts. Taking the construction of a nineteenth-century hierarchy of occupations from the viewpoint of work-people as a goal, they now question that self employment represented an upward movement for craftsmen in the last half of the XIXth

century and stress that factory employment obtained a relatively high ranking among manual jobs. Their researches point much more towards a melting pot where second generation Irishmen and German inhabitants approached the employment norms of the native-born, a further suggestion that ethnicity was merely an interlude. Although many of their findings make sense, one might query the uncritical use Hershberg and his associates appear to have made of the census of manufactures in which they fail to take account of the critical work of Margaret Walsh. One also wonders whether shoe-making is not coming to be taken too readily as representative of all consumer goods industries as well as backward, conservative Philadelphia of industrialization patterns in the nation.

The long gestation of the volume has not resulted in the elimination of all errors. Caroline Golab identifies Philadelphia rather than Paterson with silk manufacture (p. 27) while David Montgomery associates silk so exclusively with Paterson that he wrongly locates Cheyney Brothers of South Manchester, Connecticut, there (p. 106). Virginia Yans-McLaughlin incorrectly attributes to Neil Smelser the finding that employers in England's mechanized cotton weaving factories recognized the family's potential as a disciplinary work unit just as did cannery owners of Buffalo. (p. 83) Montgomery curiously describes as homogeneous common labour hourly rates ranging from 18 cents to 33 cents. Was Ireland on the brink of another famine in the late 1870s and were the charges against England of Irish politicians to be taken as fact as Michael Gordon does? (p. 115, 120) A copy editor should have caught things such as a quotation given both in a footnote (p. 22) and in the text (p. 25) and a line repeated on p. 125 and two errors in dates on p. 130.

The scholarship is not immaculate nor the hypotheses always presented in testable ways. But there is plenty of stimulation to be found here.

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E. L. HOMZE, *Arming the Luftwaffe: The Reich Air Ministry and the German Aircraft Industry, 1919-39* (Lincoln: University of Nebraska Press, 1976, pp. xv, 296.

In *Arming the Luftwaffe*, Edward Homze begins by describing developments in the German aircraft industry in the period between the Treaty of Versailles and the establishment of the Nazi regime; he then proceeds to discuss the growth of the Luftwaffe up to the outbreak of the Second World War.

The impact on the aircraft industry of the Treaty of Versailles and the actions of the Inter-Allied Aviation Inspection Committee are precisely set

out. Homze not only deals with Allied attempts to enforce the so-termed "definitions" which limited the kinds of aircraft Germans could produce and use in their own air routes, but he also shows how inadequate capital proved to be nearly as insuperable a hindrance as Allied jealousy to the nascent aviation industry. Trapped on the one hand by the "definitions" and on the other by a shortage of investment capital, aircraft manufacturers, in a desperate effort to keep afloat financially, were willing to collaborate closely with the Reich ministries of defence and transportation in order to win government contracts. A good example of this was Junkers Flugzeugwerke A.G. of Dessau. When the Reich defence ministry decided to develop and test military aircraft in Russia in cooperation with the Soviets, it was Junkers whom they chose to build their plant at Fili near Moscow. But the costs were so great that the ministry quickly washed its hands of the project leaving Junkers to shoulder the burden, despite the fact that the government had promised to make up any deficits that the company might incur. Junkers lost millions and very nearly went bankrupt.

It is, of course, common knowledge that it was Hermann Goering who persuaded Hitler of the importance of airpower for Germany's future. The fresh, original approach that Goering took in developing the newly formed Air Ministry after the Nazis came to power, especially with the help of his cronies, Milch, Bodenschatz and Loerzer, makes for interesting reading. More fascinating, however, is Homze's description of the Air Ministry's unsuccessful attempts to nationalize the industry. "Instead of a uniform, consistent policy toward the aircraft industry, there was confusion and chaos. Each firm tried to build everything from single-engined trainers to multi-engined bombers, and every effort of the ministry to squeeze them into specialization was successfully countered" (p. 262). Homze is correct when he attributes this failure to the inability of the Nazis to develop a coherent policy of economic planning, not only for aviation, but, as well, for the entire economy. The name of the game for them was improvisation and still more improvisation.

Despite all Goering had done, the Luftwaffe was in bad shape in 1939, even though government propaganda made it seem the most important weapon in the German arsenal. Bodenschatz declared at Nuremberg in 1947 that "The German Air Force, at the beginning of the Polish campaign, as regards leadership, planning, or material was not equal to its tasks" (p. 265).

*Arming the Luftwaffe* is a model of scrupulous research. The footnotes themselves are a good source of information, and the bibliographical note and selected bibliography are valuable guides to the involved and, in some cases, highly technical literature of the German aviation industry.

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Reviews of Books

J. L. LEAL, J. LEGUINA, J. M. NAREDO and L. TARRAFETA, *La agricultura en el desarrollo capitalista español (1940-1970)*, Siglo Veintiuno Editores Madrid, 1975, 148 pages.

D. J. GREENWOOD, *Unrewarding Wealth. The Commercialization and collapse of agriculture in a Spanish Basque Town*, Cambridge University Press, London, 1976, 223 pages.

Until thirty years ago a somewhat traditional agriculture prevailed in Spain. Although industrialization began to make some inroads a century ago, its progress was slow and often contorted. Agrarian issues and tensions still contributed much to the onset of the Civil War. Recently, the path of change accelerated. Spain became an industrial nation during the 50's and 60's. The final outcome seemed rather inevitable for most economic historians and certainly was welcomed by politicians of many contrasting persuasions. No global account has been written yet of this crucial transformation. The two books under review discuss the problem only from the perspective of agriculture, what role it played in fostering industrialization and what were its feedbacks.

Edited by J.M. Naredo, *Agriculture in the Capitalist Development of Spain (1940-1970)* includes three essays. In the first one, J.L. Leal, a young and influential economic adviser of the present administration in Spain, sums up the basic argument of the dissertation he defended in 1972 at the Sorbonne. He attempts there to estimate the annual capital accumulation in commercial agriculture during the three decades mentioned and how much of it was transferred to other economic sectors. Leal sees the whole period divided in two by a clear break situated in 1951. During the first phase, a backward commercial agriculture resorting to primitive techniques, producing poor yields and low outputs and reinvesting little, was however able to make enormous profits thanks to a sharp contraction of wages, low taxes and high prices obtained in the black market. The bank system then funnelled the vast savings of the rural entrepreneurs into industry and other activities. Political explanations are offered by Leal for this anomalous state of affairs. The drawback for industrial development was that agriculture therefore provided a limited outlet for manufactured goods. Conditions changed drastically during the second period. Agriculture became mechanized and absorbed a large volume of fertilizers, while wages went up and prices down. Industry found there a closed and eager market for its products. Concerning capital flows, the trend also reversed. Agriculture no longer financed the rest of the Spanish economy. Rather, it required large credits which made it dependant upon government agencies and mostly private institution. In the second article of the book, L. Tarrafeta studies how credits were provided during the decade 1963-1972 and what was the volume of the debt contracted by agriculture in 1971. Another view of how Spanish agriculture contributed

to the recent economic development of Spain is given in the third essay. J. Leguina, a demographer, discusses here the losses (by exodus and ageing) suffered by the agricultural labour force. Migration, which speeded up from the 1950's on, is measured not only by how many persons of both sexes quit agricultural jobs, but also by the numbers labour transferred by this outflow into the non-agricultural sectors (European industrial nations included). The feeling that pervades the three papers is persistently that of deprivation.

A similar impression arises from the second book. Instead of dealing with national aggregate data as the papers mentioned do, D.J. Greenwood, an economic anthropologist, focuses on a microcosmos. He examines the changes undergone in the rural section of the municipality of Fuenterrabia located in the Basque country, near the French border. The time period runs from 1920 to 1969. The 60's are however emphasized. A highly profitable commercial farming there does not prevent peasant emigration to the neighbouring industrial towns and the ensuing takeover of the farms by developers for tourism. A better standard of living expected elsewhere does not motivate in this case the emigration and the surrender of the soil. Modernization induces the domestic farm units to break off. Thus the collapse of commercial agriculture appears related more to cultural disintegration than to economic failure. What holds true for Fuenterrabia does not apply necessary to the rest of the country. The area is quite a special case.

The authors of the two books share a common concern over the recent transformation. They do not align themselves among those who miss "the world we have lost", but certainly they are too sophisticated to view the insertion of Spain into the industrial world as an unqualified achievement.

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J. MOKYR *Industrialization in the Low Countries, 1795-1850*, (New Haven and London: Yale University Press, 1976. XVIII, 295 pp.).

New Economic History studies for Europe in the period before 1850 are still a rarity. Thus Joel Mokyr's investigation of the extent to which cliometry can be applied to European history in relation to a well-defined and limited problem is particularly welcome. The problem: Why was the prosperous Netherlands not able to achieve successful industrialization between 1795 and 1850 while the then economically backward Belgium was indeed able to do so and to go on to establish itself as the first industrial power on the continent?

After an introduction to the economic situation of both countries at the end of XVIIIth century, Mokyr describes in detail the process of industrialisation in Belgium between 1795 and 1850 and the attempts that met

with so little success in the Netherlands during this same period. On the basis of these general data, Mokyr elaborates a theoretical explanatory schema, applying the labour surplus models of A. Lewis and of J. Fei and G. Ranis to the specific proto-industrial situation in the Low Countries. Technological progress in the modern industrial sector is integrated into the explanatory schema by means of Salter's hypothesis. Statistical data on the wage differences between Belgium and the Netherlands provide a rough test for the correctness of the explanations. Because the results turn out as Mokyr anticipates, other possible explanations are ruled out. By way of conclusion, an important effect of Belgian industrialization is examined closely: this is the extinction of the traditional linen industry in rural Flanders, a classic example of a proto-industry.

The book makes a very good impression. It is solidly structured; the background information and the explanatory hypothesis are illustrated in detail; the assumptions are stated explicitly; the data used for testing are examined critically; attention is given to other possible explanatory variables; and, finally, the effects of the phenomenon to be explained are included in the selected explanatory hypothesis. But we have some criticisms. We shall treat first the errors in detail and the minor deficiencies and then offer some more fundamental criticism.

The XVIIIth century expansion of the linen industry in rural Flanders is not a phenomenon exclusive to that century; it was already operative around the middle of the XVIth century and the middle of the XVIIth century. The author includes no discussion of proto-industry in Brabant such as the cotton and wool industry in Antwerp, Lier, and Brussels. The economic backwardness of Belgium during the XVIIIth century is ascribed too exclusively to the wars waged between 1568 and 1714. The agrarian and demographic revival after the war years at the end of the XVIth century was very strong, as it was after the chaos of the wars around 1700. In addition, more attention should have been given to the specific process of ruralization that marked the XVIIIth century economy in Flanders and Brabant and continued until well into the XIXth century. The Belgian coal sector is purposely excluded although its development during the XVIIIth and XIXth centuries was crucial for the success of the Industrial Revolution in Belgium. The weakening of the "traffic" industries in the maritime regions of Holland is not linked to the simultaneous expansion of the same sector in the new and rapidly expanding harbour area of Antwerp. In the testing of the model, the price and wage studies of C. Verlinden and colleagues, of A. Neryrinck, and of others are not used. The extensive development of the banking system is neglected: Mokyr proceeds from the assumption that no capital market existed in the Low Countries during the XVIIIth and XIXth centuries (p. 219). This brings us to our fundamental criticism of the relevance of some of his assumptions and of the correctness of some of his deductions.

The central assumption that the accumulation of capital was caused exclusively by the ploughing back of realized profits, so that the more unequal distribution of income in Belgium must be considered the crucial variable for the explanation of early industrialization, appears to be untenable for a number of reasons. It implies, first of all, that the largest sectors of proto-industry in Belgium would have been the most rapidly and the most thoroughly mechanized. The reasoning runs as follows: the larger the sector and the lower the wage level, the larger the cheap labour reserve that can be transferred from proto-industry to mechanized industry without causing significant wage increases and, consequently, the greater the possibility for capital accumulation because of reinvested profits. The reality, however, was just the reverse. The traditional linen industry in rural Flanders was by far the most important and the poorest industry in Belgium. But, except for the rather marginal mechanization of the Ghent cotton and flax industry and the construction of the railway, Flanders was hardly touched by the Industrial Revolution before 1880. In Wallonia, however, where proto-industry was much more limited and where wage levels were relatively higher, mechanization occurred much more rapidly and had more profound and widespread effects. This also applies to the Netherlands. As far as proto-industrial activity is concerned, the "traffic" industries in the maritime regions were the most important, but still the Industrial Revolution did not materialize in these areas before 1850. Regarding wage levels, Mokyr himself indicates that the wages in the North Brabant wool industry were considerably lower than in the analagous woollen industry in Verviers (p. 179), but still it was in the latter region, with an importance approximately equivalent to the North Brabant woollen industry (in Tilburg and environs), that mechanization proceeded fastest and most thoroughly.

The assumption that capital accumulated exclusively by means of retained profits, moreover, does not take into account the real importance of *external* financing in the industrialization of the Low Countries. First, there was the traditional banking system. Short-term bank credits and other forms of credits were commonly used in Belgium to finance industrial investment for the middle and long term. In addition, there were direct governmental loans by Napoleon during the French period and by King William I between 1815 and 1830. And during this same period and also thereafter, there was important indirect support provided by the expansion of a modern infrastructure. Finally, there were the long-term credits that, already in the XVIIIth century, were occasionally provided by aristocrats and merchant bankers to the Antwerp and Ghent cotton industry and to the Hainaut coal operations. From the second quarter of the XIXth century, they were granted *systematically* by the Belgian investment banks to take control of industry. The neglect of this important reality significantly weakens the persuasive power of the model.

Finally, one other structural factor must not be lost sight of: the mechanization process occurred as a transfer from *commercial* to *industrial* capitalism. It is only against this background that the problem of wage differences can be understood. Beginning in the Middle Ages, both the Southern and the Northern Low Countries had built up an impressive commercial infrastructure. In the South, this had formed the basis for the economic expansion that reached its peak in the XVIth century; in the North, an analogous growth occurred with the XVIIth century as the zenith. In both regions, the current high wages had placed no restraint on further expansion, quite the contrary. The high wage level relative to the surrounding countries had acted as a *direct stimulus* in both countries for renewal of the industrial structure, in particular with regard to differentiation of urban production of goods and services, which was supported by significant progress in labour quality, and rationalization of the rural economy by better division of labour and commercialization. The high wage level was, however, not the only explanatory variable in this renewal process, but it was the main explanatory variable in innovation in a progressive environment within the paradigm of *commercial capitalism*. As soon as the potential for organizational progress within this paradigm was exhausted, the high wage level by itself could no longer ward off by structural renewal the danger of diminishing returns in industry. The high wage level then contributed to sclerosis and conservatism. This situation applies to the Northern Low Countries and conforms to Frankel's theory on the effects of interrelatedness. On the contrary, during the XVIIth and XVIIIth centuries, the Southern Law Countries had grown away from *urban commercial capitalism* and, in so doing, became more amenable to the introduction of the Industrial Revolution.

Obviously, the ruralization of industry, which led to more rapid expansion of proto-industry and to lower wages, was an important factor in the transfer, but it was certainly not the only factor. Moreover, the ruralization process had both positive and negative effects: in the Hainaut coal region, it favoured the early use of the Newcomen atmospheric steam engine, in the Vesder area it promoted the early mechanization of the woollen industry, but in rural Flanders it hindered the rapid introduction of a modern cotton and flax sector.

Export-led growth does not come into consideration as a crucial explanatory variable either. But this variable can certainly not be ignored in the model of Belgian industrialization in the XVIIIth and XIXth centuries so far as the expansion of the coal industry is concerned in Hainaut and Liège. This has been clearly demonstrated by H. Hasquin, P. Moureau, M. Bruwier, H. Watelot, and others. The exclusion of the important coal sector from this study is, therefore, another unfortunate omission. Even the mechanization of the Verviers wool industry and the Walloon metal industry cannot be understood apart from export demand.

It is clear that the explanatory model proposed by the author remains too one-sided and rests on too many assumptions alien to reality. Still, it would be totally amiss to reject this book for it possesses much methodological and interpretative merit. The application of economic concepts and theories to the formulation of a logical explanatory model introduces a refreshing methodological innovation into the industrial historiography of the Low Countries. It compels great admiration and merits successors. In addition, numerous new historical interpretations are offered that shed an entirely different light on the problem of the Industrial Revolution and that significantly reorient further historical research on this subject. The interesting character of the comparative approach must also be stressed as it brings some surprisingly new insights to the fore. And last but not least, this book is written not only with keen intelligence, but also with zest and spirit. And this is a very attractive feature.

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J. D. POST, *The last great subsistence crisis in the Western World*, Baltimore and London, The Johns Hopkins University Press: 1977, xi; 240 pp., bibliography and index.

Professor John D. Post has undertaken to analyze the causes and consequences of crop failures in the period 1816-1819. His study demonstrates the interconnectedness of social, economic, and political developments, the importance of what he calls "extra-economic" phenomena in determining economic conditions, and ultimately the necessity for studying societies holistically while abandoning national units as the basis for historical research and reconstruction. The food shortages which provide him with his starting point occurred throughout west and central Europe and in the United States as well. They were caused by profound climatic disturbances which ruined crops with premature cold and excessive rain. Their origin may be traced to volcanic eruptions which loaded the atmosphere with dust and ash, and Professor Post strongly suggests that similar atmospheric disruptions may have been influential in earlier subsistence crises. The crop failures were serious enough in the countries they affected, but their influence was also felt in distant lands and had unexpected consequences for societies struggling with dearth. The too swift growth of New Russia's grain exports through Odessa to meet market demand, resulting from famine in Europe, for example, rebounded in a Russian crisis of depressed prices and oversupply when European agricultural output recovered in the post-famine period. At the same time the failure to control the plague in Ottoman lands multiplied the dangers of disease in Europe as the demand for grain shipments from eastern

ports increased. Though the intensity of the crisis varied from the famine centers to the periphery, it was felt most heavily in the west.

Though there are obvious lessons for today in this study, the book is neither a tract nor a sermon. It is a careful, detailed, and pre-eminently factual analysis of what happened, why it happened, and what, within the narrow period studied, the events meant. Five chapters carry the story from inception to conclusion, while the sixth attempts to show the political consequences of the events described, and is properly termed an epilogue. Each of the chapters takes up a particular subject. These include crops and weather; a description of the subsistence crisis itself; popular disturbances and social protests; the demographic consequences of the crisis and a discussion of the economic issues which the crisis posed. Each chapter explores a theoretical literature and develops the substantive materials appropriate to its argument. Contemporary newspapers, a few government publications, selected periodicals, and a modest ration of personalia provide most of the primary source material cited, while a substantial part of the factual data, including much of the statistical information, both economic and demographic, comes from the specialist secondary literatures. The conception of the book is original and innovative; the material, including both facts and basic arguments, is derivative.

The most interesting and valuable part of the book is the first two chapters which treat climate, agriculture, and the shape of the subsistence crisis. The information on social protest, vagabondage, and violence, though interesting as particulars, adds relatively little to our understanding of the dynamics of such affairs, while the conclusion that enlightened and efficient administration could modify the social consequences of food shortages is not particularly startling. On the other hand, the book describes the intensity and dispersion of social disorders in a way which is clearly helpful in evaluating the problems of the period. Professor Post holds that industrialization and other phenomena associated with a rapidly modernizing economy were less important than these pre-industrial patterns of market and price patterns in determining economic fluctuations between 1816 and 1820. The European economy was predominantly agricultural. Widespread distortions in markets because of crop failures were the root cause of the depression and high unemployment in 1819-1820. The demographic analysis compares the period of dearth with earlier pre-industrial famine periods, and extends the analysis to include epidemiological factors. What is important here is the multiple evidence demonstrating the essentially traditional and agrarian character of European society and economy in the post-Napoleonic period. It must be added that neither the demographic, epidemiological, nor economic sections make any claim that the subsistence crisis had structural consequences which affected future historical development.

The only long-term consequences of the food crisis which the author

discusses are political, and even the political consequences appear to have done little more than reinforce the governing authorities in their commitment to stability and order. In fact, the political epilogue is probably the least satisfactory part of the book precisely because it fails to look closely at the foundations of the post-Napoleonic political system. The problems which the food crisis raised were essentially questions of aiding the destitute and blunting the effect of social disorders. Undoubtedly such issues reminded Restoration Governments of the deep dangers of disorder, but the assault of conservatives on liberalism, constitutionalism, and romantic nationalism was owed to deeper-rooted concerns than the food crisis.

The era was one of massive and long-developing social and economic transformations to which political leaders reacted. Perhaps the first attempt at a systematic response came from Russia's Tsar Paul I (1796-1801): Napoleon himself had created a rationalized, traditional political and social system, falling back from the more extreme positions staked out in the revolutionary decade which preceded him; while the new order built at Vienna and after was firmly committed to a traditional politics which stressed stability, control, and order. Undoubtedly the subsistence crisis reinforced that commitment; but to grant it any larger part in subverting liberal-constitutional principles overvalues a particular event at the cost of undervaluing the basic character of the political culture in which it occurred.

These are points about which to argue, however, and they should not obscure the contribution which the book makes. Professor Post contributed an illuminating and provocative study which, thanks to its multi-disciplinary approach and methodological breadth, should speak to a very wide readership. At the very least it adds a substantial body of information and some insight to our understanding of post-Napoleonic Europe; at the most it suggests problems and methods appropriate for basic research in comparative history and presents us with a fine example of the way a particular event may be made to speak to a whole complex of questions.

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S. P. PRAIS, *The Evolution of Giant Firms in Britain: A Study of the Growth of Concentration in Manufacturing Industry in Britain, 1909-70* (Cambridge: Cambridge University Press, 1976. National Institute of Economic and Social Research, Economic and Social Studies, No. 30. 321 pages, illustrations.

This valuable treatise is built around one major body of information: the trend in the share of the largest firms in the manufacturing sector of

the British economy during 1909-70. Prais establishes that this trend has been upward, particularly during the 1950-70 interval. He then reviews some possible causes of the rise, and he concludes that certain technical and financial factors — *not* increased efficiency — have been important. Throughout, his research is careful and objective.

That the share of the 100 largest firms has risen from 22 to 41 per cent of U.K. industrial net output is striking. But Prais's data are thorough and persuasive, and he uses related data (on firm size distributions and market concentration, among others) to reinforce the finding in Chapter 1. In Chapter 2, he suggests that "spontaneous drift" has led larger firms to much higher growth rates than smaller firms. This is a probabilistic concept, whose force — and continuance — is hard to estimate. Has new technology made the efficient plant size larger, thereby pushing up aggregate concentration? Not so, finds Prais in Chapter 3; large firms have mainly built or bought more plants, not larger ones.

The main force at work turns out (in Chapter 5) to be in financial markets, where large firms get cheaper capital. To some degree, they benefit from the stability which their inner diversity provides. Institutional investors favour large firms. These conditions are complex, but they do give large firms real advantages, which extend up to all known size ranges.

Mergers may have accounted for at least one-third of the growth, by Prais's own figures, but he does not regard them as a strong influence. Nor does he accept that the striving for market power has been a main force. He regards trends in transportation and marketing costs as real but secondary in factors favouring the large firms.

In short, he reaches a rough weighting among the possible forces at work, ascribing the rise mainly to *pecuniary* rather than *technical* ("or social") economies. In these chapters (2-5), his data are less definitive and original, and so the controversies will continue. Chapter 6 gives some broad comparisons with U. S. and European trends, enough to show that Britain's rise has been unusually large.

Prais finds the rise to be ominous, since it threatens social values without delivering any clear economic benefits. In Chapter 7 he briefly explores ways of arresting the trend by "tilting the balance", such as by a graduated profits tax.

A thorough treatise, the book has ample supporting appendixes. Indeed, nearly half of the volume (pages 172 to 315) consists of 5 appendixes, footnotes, and bibliography. Students of the subject will find the book to be required reading and a spur to further work. Others will benefit from looking through a craftsmanlike and objective monograph on this major issue.

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N. ROSENBERG, *Perspectives on Technology*, Cambridge, Cambridge University Press, 1976. 353 pp.

Professor Rosenberg is undoubtedly one of the foremost analysts of the forces that have determined the nature and timing of technological change over last two centuries and this collection of essays only serves to confirm that reputation. The book falls into four parts. The first is a study of early American technologies, the second discusses the analytical apparatus used by economists in dealing with the whole question of technological change, the third is concerned mainly with the diffusion of technology and the last looks at resource endowment and the growth of technological knowledge. The three articles of part 1 are based on original research but for the most part secondary sources are used for more general analysis. Inevitably there is some repetition in the use of examples and it is difficult to follow developments in the trend of Rosenberg's thought because the articles are not in time sequence, but the quality is remarkably high and consistent.

It is perhaps a pity that Rosenberg has not continued the outstanding original work of the first section. There we have the justly famed study of the US machine-tool industry and the development of his concept of technological convergence. Then comes an equally path-breaking chapter on the development of wood-working machinery in the US where he emphasises the substitution of natural resources for capital and labour — a line of argument interestingly enough that Franklin Roosevelt made very effectively in a Fireside Chat of April 1938. Rosenberg here takes us expertly through the specialised wood-working techniques and indeed it is a feature of all his work that he knows his technology just as well as his economics and has a considerable flair for describing its main features verbally.

The next five articles are largely devoted to demonstrating how inadequately economic theory has come to grips with the great complexity of technological change and how the unwillingness of economists to venture outside their own narrow professional boundaries has by and large left the study of technology in a most unhappy state. Like Salter before him, he pours scorn on the fiction of a continuous smooth isoquant in the sense of alternative technologies freely available at different relative factor prices. He deplores the artificial segregation of invention from innovation and reminds us that R and D is not just an all embracing operation but that the two are combined in different proportions and often the share of "D" is very large indeed. The very last chapter of the book too is along this same line as Rosenberg sets out the essential analytical framework of Schmookler's demand theory of invention and then with a number of examples over time makes the obvious riposte that supply constraints were equally important, that there have always been difficult areas of technology where the answer was a long time coming along, whatever the potential economic gains. The argument is

not new, for the objection is an obvious one, but what makes this an intellectual *tour de force* is the splendid rigour with which the conflicting lines of thought are set out.

The concluding section is less impressive. Writing about technology and the environment we find Rosenberg only a little less vague and woolly than most others in that field and it is a sombre warning to forecasters that even he fell for the optimistic view of the green revolution and did not realise the implications of the high level of fertiliser input involved. Elsewhere, analysing the comparative nature of technology and relying on the well established role of differences in social tastes, some of his examples are less than apt. The specially fitted sporting gun much favoured by the British was not a question of taste when compared with the standardised American gun; it was an entirely different product with a wholly different standard of performance. The same was true of British and American locomotives.

But these are minor flaws in a fine book. All these fifteen essays appeared over a decade along with other substantial work, including his brilliant edition of the Whitworth and Wallis reports on American Manufactures. Only a scholar of great industry and intellectual power could have produced so regularly work of such a high standard.

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H. W. SINGER, *The Strategy of International Development - Essays in the Economics of Backwardness*, edited by Sir Alec Cairncross and Mohinder Puri, International Arts and Sciences Press, Inc., New York, 1975, pp. xvi, 248, index.

This volume contains 13 essays on development policy by one of its foremost exponents, as well as a mildly critical introduction by Sir Alec Cairncross. After his pioneering work in 1949 on the distribution of gains between the developed and the less developed countries, Singer's recent writing reflects an increasing stress on problems related to the development and use of technology in the less developed world. These essays deal with a wide range of problems including economic dualism, unemployment, income distribution, population growth, multinational corporations, transfers of technology, international aid, and the role of science and technology in the development of poor countries. In discussing many of these problems, Singer rightly stresses the fact that traditional development models, being essentially an off-shoot of the neo-classical growth theory, are neither applicable nor appropriate to contemporary development problems. He advances a number of policy prescriptions for the solution of development problems, although the essays do not contain an in-depth analysis of the underlying causes.

It is difficult to evaluate within the span of a short review the full range of development policy problems discussed in these essays. If one were to single out one major thread that runs through these essays it is the renewed emphasis on the development and use of labour-intensive technology in developing countries so that economic growth can proceed without detriment to employment of labour. In addition to advising the developing countries to initiate their own labour-intensive and "intermediate" technology, Singer advances the proposal that the developed countries devote a certain proportion of their budget for scientific research toward the creation of labour-intensive technologies for use exclusively by the poor countries. This latter proposal follows from the so-called "Sussex Manifesto". Singer suggests that international aid which is frequently tied to the purchase of capital-intensive equipment from donor countries, which exacerbates the employment problem, should be replaced by aid in the form of labour-intensive technology.

In suggesting the above and allied proposals, Singer seems to have espoused a view of technology popular in some development circles without considering the full implications of this policy. Singer never really analyzes the fundamental question of the extent to which the use of relatively capital-intensive technology is responsible for the unemployment problem in developing countries. One could assert with equal justification that the unemployment problem is caused by the population problem, or the ill-conceived system of education and career training. Moreover, terms like "intermediate technology" are devoid of operational meaning, since they ignore the entire set of questions relating to output-mix, factor prices and demand. It is unrealistic to think that the developed countries would either muster the resources or the inclination to develop labour-intensive technologies for exclusive use by the developing countries. Witness the inability of technologically advanced countries to develop alternative technologies that economize on the use of exhaustible energy resources. Finally, it is worth quoting Cairncross in the same volume: « to reject a technology on the ground that it is capital-intensive needs more justification than a passing reference to unemployment » (p. xvi). In short, Singer fails to take account of the interconnections of technology — which are both involved and complex — with investment, productivity and employment. These interconnections have to be explored with some care before one can put any faith in popular conceptions of the role of labour-intensive technology.

However, the lack of analytical rigour should not detract from the breadth of Hans Singer's concern for important development issues and his always incisive and thought-provoking observations.

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M. J. TITS-DIEUAIDE, *La formation des Prix céréaliers en Brabant et en Flandre au XVe siècle* (Editions de l'Université de Bruxelles. Centre d'histoire économique et sociale, 1975) xlv-406 pp, 8°, 39 graphs.

Contrary to what has been argued recently, the cereal market at the end of the medieval period was not "narrowly compartmentalised" (G. Duby *L'économie rurale et la vie des campagnes dans l'Occident médiéval* 1962 p. 559). In the more populated, heavily urbanised and commercialised regions, such as Brabant and Flanders, this was certainly not the case in the XVth century.

In fact, the unity of the cereal market in these regions is quite striking. In a small rural market like Mol in Campine, which was very much away from the great cities, prices went through exactly the same rises and falls as in Antwerp, Bruges and Brussels, and even the levels were much the same. The differences were less than one would find today between different districts in a single large town.

A comparison of the annual harvest variations in the regions around Brussels and Louvain (from the accounts of the Hospitals of the *Grands Béguinages* in Brussels and Louvain) with the movement of prices suggests at first sight that there is a firm negative correlation between the two, but the problem is less clearcut than the accepted views of the pre-industrial economy might allow for. Prices were also influenced by the situation of reserve supplies and by speculation against forthcoming harvests, and King's law is scarcely borne out. By the XVth century the fluctuations in cereal production in Brabant and Flanders were only partially the cause of cyclical and seasonal price variations. J. Mertens has shown that this can also be argued for the late XIVth century as well (He gebruik van regressievergelijkingen in kwantitatief historisch onderzoek. En proeve - Album Charles Verlinden, Bruges, 1975, pp. 221-232).

The findings of this extremely painstaking study by Mme Tits-Dieuaide show that contrary to previous belief corn circulated in very large quantities and over considerable distances. Regional, inter-regional and long-distance trade all strongly influenced price movements. Similarities and parallels can only be explained in terms of a cereal trade which was constantly bringing closer the prices to be found in even as vast an area as that between the Rhine and the Seine. In terms of the long-distance trade, Antwerp and Bruges received cereals not only from the Baltic, but also from England and Spain. The most pronounced price increases in Flanders and Brabant came in 1408-9, and resulted from the ban on exports from Prussia and from the fact that speculation in exports to Holland and Zeeland had further reduced supplies.

Monetary fluctuations were not clearly reflected in the movement of cereal prices. Changes in foreign demand had greater effects than those in domestic demand, and the effect of epidemics is also visible at times. Levels

of employment must also have had an effect, but this is a subject about which we know very little.

This excellent study by Mme Tits-Dieuaide also shows clearly that climatic determinism cannot be used to explain exclusively either long-term phenomena or short-term crises. It was always commerce, in all its multiple aspects, which played the most important part in determining cereal prices.

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R. W. TOLF, *The Russian Rockefellers: The Saga of the Nobel Family and the Russian Oil Industry*. Stanford: Hoover Institution Press, 1976. Pp. XV-269.

Robert Tolf has written a very interesting and informative account of the activities of the Swedish Nobel family in developing the Russian oil industry during the reigns of the last three Romanov Tsars. As he quite justifiably notes, the activities of foreign capitalists in developing the economic base of tsarist Russia have all but been ignored by Soviet historians.

In his remarkably well-written book, Tolf charts the fascinating story of the Nobel family's contribution to the economic development of pre-revolutionary Russia. It began with the activities of Immanuel Nobel, who developed effective mines for the Russian navy, but who was not really able to launch a successful enterprise in Russia. Not until 1873, when his son Robert Nobel made a 25,000 rouble investment in the Baku oil business, did the Nobels emerge as important industrialists on the Russian scene.

Robert Nobel proved to be adept at the technological development of the Nobel oil industry in Baku, improving refining installations, and in general building a superb research structure for the industry. But in business acumen, he lagged far behind his more astute brothers, Ludwig and Alfred, who eventually bought out his interest in the oil business.

It was, then, under Ludwig Nobel that the oil industry developed in Baku. He proved to be an astute businessman, as well as a leader in technical innovations, such as the introduction of the first oil pipeline in Baku as early as 1877.

Under his leadership, Nobel wells were producing 16 per cent of all Russian crude by the 1880s. And at the turn of the century, the company's 171 active wells were pumping one and a half million tons of oil, amounting to almost 18 per cent of Baku's total and 9 per cent of the world's (p. 120). Nobel enterprises employed some 12,000 persons, including 3,800 workers in the oil fields, 3,600 in machine shops, five refineries, and a half-dozen auxiliary factories; some 200 hundred office workers in Baku and St. Petersburg, and about 2,300 in the Nobel fleet (p. 149). This impressive indus-

trial empire had been created by the business acumen of the Nobel brothers, themselves, as well as by the various capable Swedish managers they hired to assist them in their endeavours.

On the whole, Tolf has written an appreciative study of the Nobels' contribution to Russian industrial development. At all times he has stressed the effective and progressive technical leadership provided by the Nobels and their representatives to all branches of Russian industry in which they were involved. But because he has relied very heavily on the archives of the Nobel family, he has tended to ignore labour relations, as well as the role of the Russian government in the industrial development of Russia.

To some degree, therefore, Tolf's study reads like a chronicle of the second coming of the Varangians to Russia — this time in the guise of oil developers and industrialists. The negative aspects of foreign domination of the Russian oil industry are not fully developed. Were native Russians given employment opportunities in management and technical positions, or were such jobs limited to Swedes? Tolf also implies that, on the whole, the Nobel brothers were paternalistic towards their workers, but there is evidence of labour difficulties among oil workers in 1905 and 1917 that were not so successfully dealt with by the last representative of the family in pre-revolutionary Russia.

On the other hand, the machinations of various international oil interests in the Russian oil market are vividly described by Tolf. The complex struggle for control of world oil markets waged by the Nobels, Rockefellers, Rothschilds, and Deterdings is depicted in great detail and with obvious relish. Tolf thus provides us with an excellent picture of the international setting of the Russian oil industry, but unfortunately he does not do the same for the domestic milieu.

Because he has relied so heavily on the Nobel archives, Tolf has presented a rather subjective view of their contribution to Russian industrial development. He has neglected many other factors that would provide an overview as to where the Nobels fitted into the larger picture of Russian economic development on the eve of 1917. We see the towering figures of the Nobels in Russia, but have no idea of the world in which they wheeled and dealt.

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