The Agrarian History of Preindustrial France. Where do we go from here?

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In the last few years, American historians, both practitioners of the New Economic History and more traditional scholars in broad sympathy with the new methodologies, have called attention to the principal weaknesses of the Annales School. Following the lead of Jean Marczewski and François Crouzet, they emphasized the excessive influence of Braudel, the limitation of Labrousse's price history, the narrowness of Chaunu's serial history techniques, the inadequacy of theoretical training in economics, the descriptive use of statistics, the failure to ask pointed economic questions, and reasoning through analogies to biological processes, oceanic waves, and geological strata. (Crouzet, 1971; Hexter, 1972; Tilly, 1972: Forster, 1978).

All of these general shortcomings in economic analysis appear in the historical literature on rural France recently summarized in the authoritative four volume *Histoire de la France rurale* under the general editorship of Georges Duby and Armand Wallon (1975-77). This is the first major synthesis since the publication almost half a century ago of Marc Bloch's, *Les caractères originaux de l'histoire rurale française* (1931). These volumes contain enormous amounts of information, statistical data, and panoramic descriptions of the rural world, but little economic analysis. There are no operational theories for the functioning of the agrarian economy, no clear grasp of the role of agriculture in the general economic history of France.

The Duby-Wallon volumes cover more than two millenia of French rural history. Each of the major chronological periods has its own historiographical traditions. The modernists, clearly under the influence of Crouzet, Marczewski, and Lévy-Leboyer, have little use for the methods and key interpretative schema

of the Annales historians of the early modern period. Specialists in pre-historic, Gallo-Roman, and Medieval France draw their inspiration less from the work of the Annales historians or French modernists than from a broad range of international scholarship in historical geography, archeology, aerial photography, and historical ecology. The emphasis here will be on the early modernists, the Annales historians of the twelfth to the eighteenth century, who have worked in self-imposed isolation paying little attention to either their French colleagues in other chronological periods or to non-French historians of the preindustrial West.

Until very recently, French early modernists working in rural history were not interested in functional economic problems. The predominance of sectoral studies in France eliminated in advance any need to grapple with the larger issue of how the entire preindustrial economy operated. Among rural historians, the long established tradition of writing broad regional studies inherited from the early geographers discouraged the investigation of linkages between the rural world and the rest of the economy. In practice, they restricted their studies to the narrowly rural side of problems in specific geographical areas. In short, French early modernists as a whole have not confronted the major economic questions of the preindustrial period directly.

Their views on the economic aspects of the rural world developed as a curious amalgam of interpretations derived from noneconomic studies, ideological prejudices, general cultural attitudes, and interwar appreciations of economics. To simplify somewhat, the prevailing views about the agricultural economy of preindustrial France are a combination of Malthusian-stagnationist notions merged with a vague Marxist bias. Coupled with this is the feeling that the world of the peasantry existed largely outside the sphere of economic forces.

The most fundamental notion about old regime France is that it was caught in the Malthusian dilemma of population pressing on a limited food supply. Among French intellectuals, Malthusianism was part of a general cultural pessimism that dated back to the early days of the Third Republic and became more pronounced in the wake of the First World War (Sauvy, 1959; Armengaud, 1975). But in rural studies Malthusian ideas were of a more recent date and depended essentially on pioneer work in historical demography carried out after World War II. The principal influences were Meuvret's (1946) seminal study of population and grain prices, Goubert's *Beauvais* (1960), and Le Roy Ladurie's *Languedoc* (1966). The terms Malthusian or Malthusian-Ricardian convey the impression of serious functional analysis but were basically fashionable labels stuck on the cyclical and longterm trends uncovered with serial history techniques. Historians rarely if ever specified precisely what they meant by Malthusian mechanisms and shied away from working out the full implications of the term. Although demographers no longer hold Malthusian views (Dupâquier, 1976), the Malthusian interpretation of the rural world

is so deeply rooted in the historical literature that few French early modernists can push beyond it.

The most important corollary of Malthusianism in rural studies is the notion of stagnation. In the historical literature, stagnation contains two main elements: a static view of preindustrial agrarian systems and the secular stagnation of agricultural production. The static notion of agrarian systems came initially from the work of the so-called possibilist geographers of the early twentieth century, in particular Paul Vidal de la Blache (1908, 1922) and Jules Sion (1909). They studied what they considered to be natural geographic regions. They recognized the interplay between man and his physical environment, but barring a major leap into modern technology man conformed to the possibilities of his physical environment and developed agrarian systems in keeping with these natural constraints (Meynier, 1958 and 1969; Lebeau, 1972). The search for the origins of these complex agrarian systems was one of the principal concerns of historical geographers and medievalists, but there was general agreement that they were in place by the middle ages, if not earlier.

Medievalists and geographers in the post-war years continued their investigations and eventually outgrew the ideas of the possibilists (*Géographie*, 1959; *Beiträge*, 1968; Dussart, 1971; Baker and Rutlin, 1973; Hoffmann, 1975). Scholars of the old regime turned their attention mainly to other topics and continued to accept at least implicitly the environmental determinism and static view of preindustrial agrarian systems found in the writings of the possibilists. In general they agreed that without massive doses of urban capital and modern technology there was a limit to the capacities of men to wrest a living from the environment. Men reached this limit under the old regime. Warfare and population loss might disturb the patterns of land use, but soon the old patterns would be reestablished. The countryside would be rebuilt, but then the old limit would be reached again.

In accepting uncritically the popular notions of static agrarian systems and the eternal order of the fields, early modernists misconstrued the findings of the geographers and confused historically distinct aspects of farming. The morphology of agrarian systems was not the same as the economic use of land. There was always a broad range of intensification and factor mixes possible without any change in morphology. Also the existence of the morphologically pure systems in certain regions at an early date and their immobility across the centuries revealed little about their historical incidence in larger areas. As late as the nineteenth century, all the possible types of land use from slash and burn to continuous cultivation could be found within almost any radius of fifty kilometres (Slicher van Bath, 1977, p. 72).

The stagnationist view of old regime agricultural production was hardly new either but rested essentially on received opinion (Augé-Laribé, 1912 and 1955) since no one undertook serious investigation of the topic before the 1960s

and 1970s. Among contemporary observers of old regime agriculture there was a general consensus. Arthur Young and numerous agrarian reformers of the second half of the eighteenth century spoke with one voice: old regime agriculture made no sense economically, French farmers were ignorant and hidebound peasants, landlords as a group were uninterested in the land, and the traditional methods of farming were irrational (Young, 1931; Bourde, 1967).

Fresh support for the stagnationist interpretation of agricultural production came from the nationwide investigation of the tithe records under the direction of Le Roy Ladurie (Goy and Le Roy Ladurie, 1972). Despite the strong misgivings of many scholars about the usefulness of the tithe records as a reliable indicator of gross agricultural production, Le Roy Ladurie insisted on interpreting the results as solid proof of the secular stagnation of agricultural production. In his 1973 inaugural lecture to the Collège de France, Le Roy Ladurie (1974a) spoke of immobile history. The low level of agricultural production and productivity held back urbanization and general economic devement. He repeated his earlier conviction (Le Roy Ladurie, 1966) that French agriculture had reached a technical impasse. The only way out was through an agricultural revolution.

The Marxist element in the post-war view of the preindustrial world was an intellectually vague bias, really more of a moral sentiment than a firm commitment to a philosophical system. At its most fundamental, this non-doctrinaire Marxism was a moralizing sentimentality for the world of the peasantry. As such it drew support from the work of the geographers and historians of the pre-1939 period (e.g. Dion, 1934a). These academics expressed a nostalgia for the life of the peasantry and the routines of the countryside that contrasted sharply with the official, Paris-based attitude of the government that peasants and peasant life were brutal, boorish, and barbarian (Weber, 1976). Fresh reinforcement for this nostalgia came again from academics of the post-war period who studied the destructive impact of rapid industrialization on the vanishing peasant (Aymard, 1974, pp. 503–4). Finally Marxism of a sort seeped into old regime studies from French Revolutionary scholarship, first from the enormously influential work of Georges Lefebvre (1924, 1954, 1963) and later from the new generation of scholars, in particular Albert Soboul (e.g. Soboul, 1970).

Whatever its origins, in practice this Marxist bias strongly influenced the work of rural historians. As the corpus of scholarship grew, the Marxist prejudice became more pronounced. The peasant proprietor emerged as the hero. Noble landlords, the Church, and the great tenant farmers were grasping exploiters indifferent to the plight of the masses (e.g. Roupnel, 1922; Venard, 1957; Saint-Jacob, 1960; Pesez and Le Roy Ladurie, 1965; Jacquart, 1974). This bias blinded many to potentially fruitful lines of inquiry. Historians described the expropriation of the peasantry as an unmitigated evil and over-

looked the positive results of economic change. They emphasized exploitation, not the beneficial effects of the market.

The final element in the general view of the preindustrial rural world, the notion that the peasantry existed outside the range of economic forces, had a complex lineage too. In part it drew on the Third Republic concept of the Two Frances — the modern, industrializing and urban France on the one hand, the world of the peasantry on the other (Weber, 1976). In part also the bifurcated view of economics as one thing and peasant agriculture as something else reflected the general underdevelopment of agrarian economics and the preoccupation of early economists and economic historians with commerce and industry. There was an implicit equation of economic forces and market transactions. Since subsistence agriculture was only marginally involved in the market if at all, the obvious, though erroneous, conclusion was that it was also outside the sphere of economics. Agriculture was traditionally seen as part of an older, premarket arrangement, and its role was largely passive. Capitalism as an exogenous force transformed agriculture from the outside, worked through bourgeois investors and ambitious tenant farmers, and pulled agriculture out of the grips of communal and nonmarket systems of land use. Bloch's (1931) description of the agricultural revolution drew heavily on this general understanding of economics.

Given the well-known weaknesses in theoretical training in economics, the sectoral approach in research, the statistical empiricism of the serial history techniques, and the aggressive imperialism of post-war demographic studies, it was not surprising that French early modernists seized upon the secular trend in prices and population as the most obvious unifying theme for their work. By the late 1960s and early 1970s, the Malthusian-stagnationist interpretation of these secular trends had taken on the strength of a theological system. For those brought up in the faith, any other view of the world was scarcely conceivable.

The leading scholars were of one mind. Braudel clarified and expanded his earlier ideas in the revisions of *The Mediterranean* (1966) and in *Capitalism and Material Life* (1967, 1977). He employed a Malthusian model of population and food supply and subscribed to the notion of the secular stagnation of preindustrial societies. In general texts and review articles, Pierre Chaunu (1974) and Emmanuel Le Roy Ladurie (1974b, 1977) described the familiar patterns as the multisecular undulating rhythms of a preindustrial, homeostatic ecosystem. Beginning with a high point in the late thirteenth and early fourteenth centuries, the "crowded world" of the French countryside — a point of pride among French historians, though poorly documented — plunged, bottomed out, and recovered, only to repeat the cycle again with appropriate adjustments in the size of farms, agricultural production, average age at marriage, etc. The early modern period was in a sense a rerun of the

High Middle Ages and nothing significant changed prior to the mid-eighteenth century.

All this and much more appeared in volume II of the Duby-Wallon, *Histoire de la France rurale.* Hugues Neveux, Jean Jacquart, and Emmanuel Le Roy Ladurie summarized the most significant work of the last thirty years and presented it with numerous contradictions within the traditional interpretative framework. All the basic notions appeared: the secular trends in population, secular stagnation of agricultural production, the equilibrium between population and food supply, the immobility of the principal agrarian systems, the strong Marxist sympathy for the dispossessed peasant, the hostility to engrossing landlords and sharp tenant farmers, nostalgia for the world of small peasant proprietors, the necessity of an agricultural revolution. And yet despite the continuing commitment to these general interpretive schema, the authors had obvious misgivings. A generation of intensive empirical research produced massive amounts of information that no longer fit into the old paradigm. They faithfully recorded the results of the solid monographic research about agriculture and the rural world but were clearly unable to make any real sense out of it. They held on to the old theories for want of anything better. Volume II of the Duby-Wallon collection accurately reflected the dilemma in early modern French scholarship. Many historians were increasingly uncomfortable with the growing gap between fact and theory, but few could see their way out of the quandary.

Confidence in the Annales techniques has dwindled appreciably in France in the last few years. The Annales approach to economic history never enjoyed much support outside of France, but for a long time few French scholars criticized it openly. The first to declare their independence from the VIe Section's methods and conceptualization of economic history were the scholars engaged in Marczewski's project to compute national aggregate statistics in the early 1960s (Marczewski, 1964). This extremely bitter divorce left the Annales historians more firmly committed to the serial history techniques than ever (Chaunu, 1964). By the late 1960s and early 1970s, students of preindustrial commerce and industry no longer accepted Labrousse's theories about the predominance of agricultural prices and production, but in general they did not break completely with the *Annales* methods (Richet, 1968: Léon, 1970 and 1974; Deyon, 1972). Instead they took refuge in the notion of independent economic strata advanced most forcefully in Braudel's, *Capitalism and Material Life* (1967).

Michel Morineau was more outspoken in his criticism. In the late 1960s and early 1970s, Morineau saw himself as an apostate, deliberately provocative and iconoclastic in rejecting the central tenets of the old faith (Morineau, 1968a, 1971, 1974a). He asserted that old regime France never faced a real Malthusian situation in which population pressed against the absolute limit of food supply. The traditional agricultural systems were far more flexible than anyone

allowed. Without any significant change in agricultural techniques or yields per acre, French agricultural production expanded in the first half of the nineteenth century and accommodated a considerable increase in population. There was no reason from the point of view of potential food supply why the population of early modern France should have declined seriously at several points in time, no reason either why it could not have grown. French historians, Morineau argued, were wrong in seeing agriculture as the main villain.

According to Morineau, the subsistence crises of the old regime were not Malthusiam at all. In many cases disease acted as an independent variable. In other cases the mortality crises were crises of poverty whose principal causes lay in social structure and distribution of incomes, not in food supply. He sharply criticized the practice of measuring the amplitude of harvest failures through the movement of prices (Morineau 1968b, 1969, 1974b). Prices revealed the workings of the markets, not the size of crops. Morineau agreed that the optimum yields in grain production were stagnant from the middle ages to the middle of the nineteenth century, but he rejected the simple equilibrium models usually proposed. He stressed the complexity of the relationships and the frequent disequilibrium between economic activity and agriculture on the one hand, population on the other.

Morineau's work was controversial, but most of the criticism directed against it was far too narrowly conceived. It focused on this or that interpretation of fact, suitable statistical techniques for the measurement of agricultural production and productivity, the evaluation of data on the size of the French population, etc. (Dupâquier, 1972; Newell, 1973 and 1976; Morineau, 1976a and 1976b; Neveux, 1975). These question were by their very nature highly technical and Morineau was admittedly not always correct in his arguments. The archival materials of the old regime and the first half of the nineteenth century do not lend themselves easily to meaningful statistical analysis (Landes, 1972). While no one could deny the legitimacy of this sort of debate, indeed its necessity, the preoccupation with technical issues distracted attention from the real significance of Morineau's publications. Few French historians addressed themselves to the larger question Morineau raised.

Morineau approached the economic history of preindustrial France from a fresh perspective. Unlike most of his colleagues, he was thoroughly familiar with the Dutch, Belgian, and English literature on agricultural production. He understood the complicated market mechanisms of the preindustrial world and made important contributions to the updating of price history. He rejected the stage theories implicit in the usual argument of the triple eighteenth century revolution: agricultural, demographic, and industrial. He argued against the simplistic notion of a sudden dramatic agricultural revolution and stressed the slow evolutionary changes in cropping and land use. He recognized several historical patterns but insisted that for the bulk of French far-

mers the major innovations, namely the spread of buckwheat, maize, and eventually potatoes, were not the precursors of economic advance but the signs of a steady deterioration in the standard of living. Morineau boldly asked the hard questions his colleagues shied clear of: how were population growth or decline, food production, the expansion or contraction of industrial production and commerce related in concrete historical cases? He insisted on looking at the entire economic context and challenged his colleagues to abandon the outmoded clichés of the classroom.

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Where do we go from here? Morineau's work was a major step in the right direction. He placed his finger on many of the key problems, but provided no comprehensive methodology for the reinterpretation of preindustrial agrarian history. In its present form, the agrarian history of France needs the analytical techniques and insights found in four major blocks of literature: agricultural production economics (Heady, 1952; Martin, 1977), developmental economics with special attention to the role of agriculture (Malassis, 1975; Reynolds, 1975; Thorbecke, 1969; Southworth, 1967), the structural analysis of socio-economic systems (Kuznets, 1965; Clark, 1957; Hartwell, 1973), and finally the Dutch historical literature with its careful distinctions between agricultural, agrarian, and rural history (Van der Woude, 1975). We must begin with an understanding of how agricultural economics function in a wide variety of historical settings and then apply this knowledge to the fragmentary French evidence. The sources contain a wealth of information on the structural organization and transformation of the French economy, systems of marketing, distribution of employment and income, etc. French historians in their passion for detail have uncovered much of it. Some of this information can be used in a rigorously quantitative manner, much of it cannot. The key is knowing what to do with the evidence we have.

The reinterpretation of preindustrial French agrarian history requires a major reformulation of problems through the infusion of economic theory. This will entail the careful sorting out and categorization of issues within the amorphous sprawl of French peasant studies. Among other things, clear lines should be drawn between commercial and subsistance agriculture, farmers and the residual rural population, problems of agricultural supply and demand. Also agriculture and rural society did not develop in a vacuum. Any reinterpretation of agrarian history of necessity involves a reinterpretation of the larger economy and of the mechanisms that governed its functioning and transformation. Specifically this means the abandonment of stagnation, neo-Malthusian, implicit and explicit stage theories both for agriculture and the entire preindustrial economy.

Major alterations occurred in every sector of the economy in the preindustrial period. The popular notion that nothing significant changed in France

or in the rural world between the High Middle Ages and the middle of the eighteenth century is simply wrong. In 1789 France was far more urbanized, industrial, and commercial than in 1500 (Markovitch, 1974; Léon, 1970). Similarly, the France of 1500 was not the same as the France of 1300. The occupational structure of the population became more diversified as time passed. Administrative efficiency, though never what it should have been, improved. The growing literature on the economic history of preindustrial Europe stresses demand and emphasizes the generally unspectacular, but cumulatively powerful nature of the changes that took place. There was little technological innovation, and no revolutionary changes. But market mechanisms slowly improved, economic specialization and diversification occurred, new income groups appeared (Cipolla, 1974, 1976; De Vries, 1976). In France, the economic centre of gravity slowly shifted away from agriculture with its low growth potential towards the industrial and commercial sectors that contained greater opportunities for further growth. France obviously did not follow a straight path of economic progress. There were ups and downs and great regional variety. But in every instance the performance of the agricultural sector was intimately connected with the rest of the economy.

The work of developmental economists sheds much light on the historical problems of preindustrial agrarian societies. The understanding of agriculture and rural society as an integral part of a total socio-economic system is the relatively recent outcome of the long search for strategies and theories of economic growth (Johnston, 1969, 1970; Mosher, 1966). In many ways the mistakes and abandoned theories of the economists are as instructive to the historian as the general consensus that now prevails. Neoclassical economics is poorly equipped to handle the dynamic problems of economic growth and development and economists soon learned that stage theories and two sector models that lumped all economic activity under the categories of agriculture and nonagriculture were inadequate. Similarly the discussion of the contributions of agriculture to economic growth in terms of increased production, released labour, markets for nonagricultural goods, and finance captured only part of the process of structural change.

By the mid-1960s, developmental economists working with the Less Developed Countries realized that any attempt to modernize agriculture that stressed narrowly technical considerations and ignored the total historical-institutional setting was doomed to failure. Low levels of agricultural productivity. rural unemployment, and underemployment, subsistence farming with primitive techniques, and periodic famines were not merely agricultural problems but manifestations of entire systems of economic underdevelopment (Johnston, 1970). The failure of the Green Revolution to solve the food problem through technological transfer underscored the lesson that modernization involved a total transformation of traditional agrarian societies (Ruttan, 1975). Effective demand, a more equitable distribution of incomes, the avail-

ability of nonagricultural employment, efficient market systems, and adequate transportation were just as essential as high yields techniques to insure an adequate diet.

In other words, agriculture and rural society cannot be properly understood in isolation. There are no purely agronomical or technical explanations for the structure of agriculture (Malassis, 1975). The explanation for the forms of both commercial and subsistence agriculture as well as the patterns of rural employment and social structure lie in the intersectoral relations within the total socio-economic system at the particular level of development under consideration. The agrosystems of old regime France were not static adaptations to geographic conditions, but were to a great extent products of socio-economic conditions. French historians and geographers have examined in exhaustive detail the relationship between the physical environment and agricultural systems and more recently outlined the impact of population fluctuations on patterns of land use. But this is not enough. Apart from the studies of viticulture and suburban truck gardening (Dion, 1934b, 1959; Philpponneau, 1956), they have not paid sufficient attention to the influence of larger economic forces.

The principal problems in the economic history of preindustrial rural France fall into three broad categories: the development of commercial agriculture, subsistence farming, and the economic history of the nonagricultural rural population. In each case understanding the mechanisms governing the relationships of population, food supply, and the larger economy is fundamental. These mechanisms were highly complex and cannot be reduced to simple functions of population fluctuation (Clark, 1968; Clark and Haswell, 1970; Habakkuk, 1971; Chambers, 1972). The demographic, economic, and agrarian history of old regime France provides numerous examples of the many possible combinations of variables in regionally balanced and unbalanced growth (Duby-Wallon, II, pp. 393-441; Morineau, 1971, pp. 97-337).

Preindustrial France was economically underdeveloped and overpopulated, but the record was not entirely black. France had some advanced industrial zones, some regions of highly productive commercial farming. But on the whole, France's economic growth and development were seriously unbalanced, income disparities were enormous, employment opportunities inadequate, wages low, land rents high, inland transportation costly and slow. Economically isolated regions coexisted with privileged areas open to both national and international commerce. Strong social customs built up over centuries held back population growth, but even so millions were born and died on the margins of the economy, consuming little and producing virtually nothing. Institutional obstacles prevented much of the population increase from expressing itself as effective demand. Underemployment and widespread poverty discouraged productive investment and offered easy opportunities for enrichment from socially exploitative arrangements. There is no gainsaying the appalling

misery of preindustrial France or its frequently lackluster economic record, but agriculture was not solely or even principally to blame.

Agriculture contributed substantially to the economic expansion of France (Leet, 1978; Roehl, 1976). The commercialized segment of agriculture grew in response to increases in effective demand at home and abroad. As is well known, France figured prominently in the international market for agricultural commodities, especially grain and wines. In the domestic market, urbanization and the growth of the nonagricultural population engaged in commerce and industry stimulated agriculture. Agricultural economists speak of the spatial organization of agriculture and growth poles (Schultz, 1953; Katzman, 1974). E. A. Wrigley (1967) used these ideas in his famous article on the economic impact of London on the English economy. The same thing occurred in France, but the cumulative effect was dampened by the existence of several growth poles instead of one. The principal growth poles were major cities such as Paris (Brunet, 1960; Garnier, 1975a, 1975b), Toulouse (Frêche, 1975), Lyons (Champier, 1965), Marseilles (Romano, 1956), etc. and a host of lesser towns.

The proof for the performance of the commercialized segment of agriculture is most abundant for the export market (Léon, 1974). The more difficult task is coming to grips with the domestic market. Although there are some figures which shed light on production, the size of markets, internal commerce, much of the evidence is indirect. Proof for the responsiveness of agriculture is found in the significant alterations in property ownership, agrarian structure, leases, marketing, and transportation that occurred around the principal growth poles. The expansion of commercial agriculture altered the economic profile of the countryside. Inadequate credit facilities that were both a result and a cause of general economic underdevelopment made it almost inevitable that outsiders — urban investors, nobles, the Church — would be major landowners in the commercialized sector of agriculture. Usually upper-class capital in the form of land, equipment, and major farm animals allied with uppercrust peasant managerial ability and working capital while the masses supplied the unskilled labor. Patterns of seasonal migration developed in keeping with the labor demands of the changing agrarian structures (Poussou, 1970).

Agriculture was capable of responding to effective demand because there were always substantial reserves of potential productive capacity. Too often discussions of old regime French agriculture presuppose, contrary to all evidence, a homogeneity of techniques applied equally to every acre of land in a given area or drastic shortages of good land. According to the logic of the popular neo-Malthusian argument, the only way to increase production substantially was through some technological breakthrough or radical change in farming practices, namely an agricultural revolution. Virtually all case studies of regional allocative efficiency, whether in developed or underdeveloped

countries, conclude that significantly greater production is possible with a redistribution of acreages, farm aninals, labour and the like, or the fuller use of available land (French, 1977; Askari and Cummings, 1976). This is what occurred in preindustrial France. The principal systems of fallow farming spread to include greater segments of the countryside, or larger, better equipped, and more efficient farms replaced smaller units of production. The evidence from eighteenth and early nineteenth century France is conclusive. French farmers were able to step up production significantly, more in marginal areas than in traditionally advanced arras, with only minimal changes in agrarian techniques (Morineau, 1971, 1974a; Grantham, 1975; Duby-Wallon, II, pp. 393–441 and III, pp. 107-141).

Commercial agricultural production followed the lead of effective demand but the pace of change was slow. Rapid alterations in agrarian structures, levels of production, and cropping are unlikely in any event for easily identifiable economic reasons. There is no need to adopt elaborate theories about peasant value systems, cultural and psychological barriers to modernization to explain the actions of French farmers (Duby-Wallon, II p. 421; Rogers, 1969; Georgescu-Roegen, 1969). The evidence both from Europe and the modern developing countries indicates that farmers in a wide variety of historical settings were responsive to economic incentives and if the desired supply was not forthcoming there was usually a good economic reason (Clark and Haswell, 1970; Myint, 1969). The supply response of agriculture is never a simple matter, but depends on the totality of the economic situation (Askari and Cummings, 1976). The economic positions of producers strongly influences their response — the higher the income of farmers, the more likely a positive response to price changes. The supply response also differs with the type and dominance of the crop. The more dominant the crop, the less likely any great increase in production barring some drastic and fairly permanent price change. These considerations shed considerable light on the immobility of the agrarian systems in many of the major graingrowing regions of France, and the alterations found in more peripheral areas (Slicher van Bath, 1977 p. 74-79).

French historians often point to the patterns of communal land use as a major obstacle to modernization and stress the difficulty agrarian " individualism " had in placing production on a rational, capitalistic footing. Jules Sion (1909), Marc Bloch (1931), and Roger Dion (1934) were of this opinion. More recent research suggests that the rules of communal land use were far less widespread and rigid than once thought and that many of the ancient forms survived because they still made sense economically (Meuvret, 1968). There can be little doubt that the fragmentation of the land and the antique provisions of seigneurial law slowed down the reorganization of the country-side, but they were not insurmontable obstacles. Widely fluctuating prices disguised in the moving averages of the serial historians were probably more important in discouraging production increases.

Despite the strictures of the eighteenth-century agrarian reformers and their modern disciples, preindustrial French farming both commercial and subsistence made sense economically in terms of the prevalling conditions. The grain farmers of northern France were undoubtedly correct in ignoring the advice of the eighteenth-century *agronomes* to adopt complex systems of mixed farming in which fodder crops played a major role. Questions of the unsuitability of soils and climate aside, neither factor nor product prices warranted such a drastic change.

The overwhelmingly pessimistic evaluation of French grain farming is based to a great extent on international comparisons of crop sizes drawn from seed-yield ratios. The general conclusion runs as follows: grain farming in northern France returning say 6-8 to 1 was far inferior to the best English or Flemish returns of 12-16 to 1. Such a conclusion is totally unwarranted. Technical and economic efficiency are not the same thing. Seed-yield ratios by themselves are an insufficient index of economic efficiency (Aymard, 1973; Christensen, 1975). Data on seed-yields are incommensurable economically without full information on the production functions under scrutiny. This would mean gathering full data on land values, labour costs, fertilizer prices, markets, transportation, etc. and especially on the larger agrosystems in which grain farming figured. In the Low Countries and in England, high yield and high cost methods in grain farming were secondary consequences of expanding demand for meat, dairy priducts, industrial crops, and the like and were economically feasible only as part of a larger whole (Slicher van Bath, 1977 p. 82). In most of France, the low cost, low yield techniques made perfectly good economic sense just as they did in much of Central and Eastern Europe.

The explanations for the low level of production and productivity were broadly economic, not narrowly technical. While it is always possible in any economic situation to read the evidence more than one way, the level of commercial agricultural production and the agrarian techniques employed were mainly consequences of general economic undevelopment rather than obstacles to further growth (Habakkuk, 1966). Agriculture played an essential, but ancillary role in the economic development of France. It followed suit. The evidence suggests the underutilization of resources, not a Malthusian impasse. The technical capacity for a substantial increase in agricultural production with minimal changes in farming practices existed, but the economic conditions were unfavorable. The chief impediments lay on the side of effective demand and in inadequate marketing structures.

The record of commercial agriculture was quite respectable, but in the last few years French historians have downplayed its significance in the analysis of rural history for both methodological and ideological reasons. Much of the evidence for the changes in commercial agriculture lends itself poorly to the serial history techniques of quantification currently in vogue. Research on the contruction of commercial farms and agrarian structures has continued

but it is considered a little *passé*, material for geographers, regional publications and *sociétés savantes*, but generally inappropriate for the more prestigeous journals unless linked directly to demographic material. In addition, the narrow focus of rural studies has discouraged the systematic investigation of the linkages between the rural world and urban centres. Finally, price history which is also out of fashion has only recently developed techniques for studying the workings of markets for agricultural commodities.

The ideological reasons for minimizing the positive contributions of commercial agriculture are probably more important than the methodological considerations. French rural history is essentially the story of the peasantry shot through with an unmistakable hostility to capitalism broadly conceived and to economic modernization. The history of French agriculture has its undeniably dark sides. Eviction of tenants was brutal, the laws regulating indebtedness were harsh and unjust, the seigneurial system in practice lent itself all too easily to the exploitation of the rural masses. Economic growth inevitably brought both dislocation and new opportunities for further advance. Both are part of the historical record.

Studies of small-scale and subsistence farming are much more in the public eye and it is here that the Malthusian-stagnationist interpretations are most deeply rooted. The " facts " of land fragmentation under population pressure, recurrent famines, mortality crises, and very low yields in peasant grain farming are undeniable. The interpretation of this data is another question. Other " facts " such as the preindustrial maximum in population and agricultural production reached in the fourteenth and sixteenth centuries and only surpassed in the eighteenth century are insufficiently established. A final category of " facts " including the diversification of rural employment and radical changes in the economic organization of the countryside receive far too little attention.

The evidence for a multisecular ceiling in either total national or total rural population is very scanty. The proofs consist of injudicious extrapolations from inevitably narrow case studies and wild exaggerations of population figures from fiscal sources, especially those of the fourteenth century (Duby-Wallon, I p. 554ff; Le Roy Ladurie, 1977 p. 484-5). While it may well be true that the maximum population of some rural parishes changed little from Saint Louis to Saint Simon, there is no reason to believe that this was true for the majority of rural parishes, let alone small villages and larger urban centres. Even in those parishes where the total population reached a multisecular plateau, radical economic reorganization frequently occurred ((*Villages*, 1965). Economic structure was more important than sheer numbers.

The evidence for a multisecular ceiling in agricultural production is derived essentially from the recent study of the tithe records. There is no need to repeat here all of the objections to blind faith in the data of the tithe receipts (Goy and Le Roy Ladurie, 1972 p. 25-43, 214-244; Bonnin, 1968; Morineau, 1974a p. 345-348). In their bewildering complexity they supply precious information

about the rural economy, but by themselves they are reliable indicators only of a major source of ecclesiastical revenues. Many of the most important changes in arable farming appeared partially if at all in these records. Also they covered only part of agricultural production. Long ago Pierre Goubert (1970, p. 92-95) insisted that French historians paid far too much attention to the principal grains and ignored the vegetable gardens and the small assortment of animals that were the mainstay of most small-scale farmers.

The small-scale and subsistence farmers of preindustrial France were remarkable for their tenacity and ingenuity. Under the pressures of necessity, they moved from primitive slash and burn techniques or infield-outfield arrangements to more intensive forms of fallow farming. In the early modern period, they adopted the high-yield, cheap food substitutes for the principal grains, namely buckwheat, maize, and eventually potatoes. But even here there were historically verifiable limits to the amount of labour capital-poor subsistence and small-scale farmers would pour into the cultivation of the arable.

The pitifully low grain yields found in most subsistence farmsteads shed less light on the productive limits of traditional grain farming methods than the failure to apply even these methods thoroughly (e.g. Jacquart, 1974 p. 284-305). The explanation for the careless cultivation of the arable was threefold: the financial inability of many to either own or lease the plowghs and draft animals necessary for the proper working of the land, the tax system that fell on the grain fields and discouraged increased production, and finally the options for more remunerative, interesting, or less gruelling work elsewhere (Goubert, P., 1970 p. 96-99). The passionate attachment to the land may well be more bourgeois than peasant. Nineteenth-century evidence suggests that small-scale farmers turned to intensive manual labour techniques in grain farming that were always theoretically possible only when other rural employment options, specifically work in the rural textile industry, began to dry up (Grantham, 1975).

In other words, there was something of a drudgery calculus, a psychological as well as an economic judgment that beyond a certain point it was more profitable and less burdensome to seek other employment or enter other types of farming than to pour more and more labour into cultivating the fields. Population pressure undoubtedly led to the fragmentation of the land, but it also gave rise to economic diversification and to the movement away from subsistence agriculture. The number of small-scale agricultural specialists producing wine, engaged in truck gardening or growing industrial crops increased. Similarly, the rapid spread of the rural textile industry, the multiplication of commercial by-employments, and the growth of migrant labour point to a willingness on the part of a substantial segment of the rural population to abandon subsistence farming to a greater or lesser degree.

The diversification of rural employment was one of the most important changes in the preindustrial period (Kellenbenz, 1974; Markovitch, 1975 and 1976). Nineteenth century historians are well aware of the heterogeneity of

rural employment but old regime specialists pay insufficient attention to this in their analysis of rural society (Compare vols. II and III in the Duby-Wallon series). Old regime France was a nation of peasants, so we are told (Duby-Wallon, II p. 370). But just what was a peasant? There is no term in French social history vocabulary more imprecise than peasant. If peasants were basically farmers, then eighteenth-century France was hardly a peasant country. In 1789, the majority of rural inhabitants in many regions, a sizeable proportion everywhere, were neither commercial farmers nor subsistence farmers, but nonfarm country residents with at most a small vegetable garden (Duby-Wallon, II, p. 440ff; Dupâquier and Jacquart, 1973). They pieced together a livelihood from various sorts of regular and casual employment, begging and crime into what has been called the " makeshift economy of the poor " (Hufton, 1974 p. 11-24).

The increasing diversification of rural employment was an essential feature of the slow structural transformation of the entire preindustrial economy. From the end of the middle ages until the early nineteenth century, population increase, the spread of rural industry, limited urbanization, the growing commercialization of agriculture, market expansion, and the growth of commercial employment opportunities slowly transformed the rural economy. In many regions the middle range of independent farmers disappeared and villages became increasingly polarized between the great tenant farmers who worked consolidated farmers and the land-poor, capital-poor masses. Many of the latter found farming the least viable option. The heterogeneity of rural employment in both the secondary and tertiary sectors reached its peak in the first half of the nineteenth century. Then further urbanization, the decline of rural industry, and the exodus from the countryside simplified the structure of the rural economy (Duvy-Wallon, III p. 69-85, 453-467). The countryside became once again primarily the residence of peasant farmers. Historians, like the geographer before them, mistook the apogee of traditional peasant society and agrarian systems, roughly the second half of the nineteenth century, for the eternal order of the fields and read this back into earlier periods.

In the preindustrial period, the unbalanced growth of the economy resulted in what developmental economists call a labour slack population (Reynolds, 1975 pp. 11-14; Krishna, 1975; Clark and Haswell, 1970, pp. 93-151). Balanced economic growth where the nonagricultural sectors of the economy expand fast enough to provide employment for a growing population is historically rare among developing countries. Even England did not escape the unhealthy backup of rural labour in the early nineteenth century (Deane, 1965 pp. 254-275). In France, the bulk of the unemployed and underemployed lived in the countryside, but their plight was not mainly the fault of agriculture. They were not seriously involved in agricultural production except as seasonal day labourers. Agriculture absorbed more than its share of the poor. Subsistence farming was not an infinitely elastic welfare haven but an economic activity

that required at least minimal amounts of land, capital, and managerial ability, not to mention good luck. There was also a limit to the employment that commercial agriculture could provide. In France it was the performance of the nonagricultural sectors of the economy which to a large extent determined both the appearance and the eventual retreat of rural unemployment and underemployment.

The imbalances in the economic growth and development of preindustrial France appeared not only in production, employment, and population, but in marketing and government. The history of famines illustrates clearly the all-embracing nature of both underdevelopment and development. The recurrence of famines in the sixteenth and seventeenth centuries and their disappearance in the eighteenth century was a major problem for early modern French historians. The simple two variable analysis of population and food supply in general use explained the appearance of the famines easily enough, so it seemed, and pointed logically to some change in supply to account for their retreat. Some histrians theorized that an agricultural revolution of sorts occurred in the eighteenth century, others argued in favour of alterations in climate (e.g. Goubert, P. 1970 p. 58-66 for a summary of the arguments). The evidence supported neither interpretation. The advances in agronomy were too slight to amount to an agricultural revolution (Morineau, 1971), and the longterm climatic cycles of the preindustrial period were of minimal importance in grain farming (Slicher van Bath, 1977 p. 57-64).

In fact the entire historical problem was poorly specified. It was not merely an increase in the total size of the French population that brought about famines, but the failure of institutions to keep pace with changing socio-economic arrangements. The economic transformations of the sixteenth and seventeenth centuries resulted in part in the emergence of a substantial segment of the rural population dependent on wages and the market for food, but neither the market mechanisms nor public administration had matured sufficiently to ensure these particularly vulnerable groups a reasonably safe existence in peacetime, let alone in war. Urban areas had their own defence mechanisms against food shortages, but no one looked out for the rural poor. By the eighteenth and early nineteenth centuries, both market mechanisms and government had developed sufficiently to dampen the social impact of any food shortage, except of course when government itself collapsed (Flinn, 1974 p. 284-318; Lebrun, 1971; Post, 1977). A bad harvest of roughly the same proportions caused far less human suffering in the eighteenth century than in the sixteenth (Morineau, 1974a p. 360-365).

Diseases in preindustrial France are also best understood in the context of entire socio-economic and institutional systems of underdevelopment (Flinn, 1974; Dupâquier, 1976; Lebrun, 1971). In the last few years French demographers have explored the etiology of diseases and reassessed their earlier interpretations of the mortality crises. Epidemic diseases such as plague had no direct

relationship with food supply. The linkage was indirect. Vector borne epidemic diseases often coincided with harvest failures because underdeveloped societies unwittingly reacted to food shortages in such a way as to spread disease. Beggars took to the roads, cities imported infested grain shipments, etc. Once again the municipal areas led the way in developing the defence mechanisms of quarantine and general public health precautions that the government later used for the entire economy (Biraben, 1974). Endemic diseases were less subject to the control of slowly maturing governments, but they were most widespread in the regions of greatest social and economic underdevelopment (Goubert, J.P.,1974)

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Well over a decade has elapsed since the acrimonious debate between the Annales serial historians and the French advocates of national accountancy methods. Neither group really offered a satisfactory methodology for the economic history of the prestatistical or at best protostatistical period. A third approach is suggested here that begins with an integrated view of development and underdevelopment and makes use of a wide range of direct, indirect, and even impressionistic information about economic institutions and social structures as a control for the fragmentary and frequently unreliable quantitative data. The emphasis falls on structures rather than merely on production. A decade or so ago, Simon Kuznets, a man no one could accuse of being hostile to quantification, published a collection of essays in which he stressed the structural dimensions of economic growth and development (Kuznets, 1965). More recently, Max Hartwell (1973) echoed the same theme in asserting that historians have paid insufficient attention to structural change both as a cause and a consequence of economic growth.

The broad structural approach is particularly helpful in understanding the agrarian and rural history of preindustrial France. The organization of agriculture and rural society can only be understood propertly as part of a larger interrelated economic system. Here an extensive literature on agrarian and developmental economics, balanced and unbalanced growth offers useful insights into the functioning of traditional agrarian societies. Understanding the systematic interrelationships of the key variables is only the first step. Developmental economists rightly insist that every historical situation is different. The relative importance of the principal variables is never the same in any two concrete cases. Endogenous and exogenous forces as well as the heritage of institutions distort the neat models.

There are no magic formulae, but the economic literature helps the historian specify problems correctly. French historians have repeatedly worked themselves into logical corners trying to understand this or that aspect of underdevelopment through an examination of two or three variables when in fact the problem under scrutiny called for a much broader approach. The French historical

literature is full of examples the basic understanding of agrosystems, levels of production, the interpretation of subsistence agriculture, the analysis of famines and mortality crises, Labrousse's handling of agriculture and its role in the larger economy, the three-way struggle of wages, grain prices, and rentes, etc. It is pointless to single out agriculture as the principal cause of underdevelopment and slow economic growth since the performance of agriculture was itself a product of overall underdevelopment.

To some it might appear that this argument amounts to explaining everything while really explaining nothing at all. This is true enough in the sense that the purpose of this essay was to review the French literature and to point in the direction of solutions rather than to provide a detailed analysis of any specific historical problem. But even a simple rearrangement of some well-known evidence, which is all that could be attempted here, strongly suggests that the overwhelmingly negative appraisal of French agriculture is overdrawn for the preindustrial period.

REFERENCES

ARMENGAUD, A. (1975), *Les Français et Malthus.* Paris: Presses Universitaires de France.

ASKARI, J. and CUMMINGS, J.T. (1976), *Agricultural Supply Response. A Survey of the Econometric Evidence.* New York: Praeger.

AUGÉ-LARIBÉ, M. (1912), *L'évolution de la France agricole.* Paris: A. Colin.

AUGÉ-LARIBÉ, M. (1955), *La révolution agricole.* Paris: A. Michel.

AYMARD, M. (1973), "Rendements et productivité agricole dans l'Italie moderne." *Annales E.S.C.* 28, 475-498.

AYMARD, M. (1974), "The Geo-History Faces with the Human Sciences: The Case of the *Etudes Rurales.*" *The Journal of European Economic History* 3, 493-504.

BAKER, A.R.H. and RUTLIN, R.A. (1973), *Studies of Field Systems in the British Isles.* Cambridge: Cambridge University Press.

Beiträge zur Genes der Siedlungs- und Agrarlandschaft. (1968), *Beihefte. Geographische Zeitschrift.*

BIRABEN, J.N. (1974), *Les hommes et la peste en France et dans les pays européens et méditerranéens des origines à 1850.* 2 vols. Paris: Mouton.

BLOCH, M. (1931), *Les caractères originaux de l'histoire rurale française.* Oslo: H. Aschehoug.

BONNIN, B. (1968), "A propos de la productivité agricole: l'exemple du Dauphiné au XVIIe siècle." *Annales E.S.C.* 23, 368-374.

BOURDE, A.-J. (1967), *Agronomie et agronomes en France au XVIIIe siècle.* 3 vols. Paris: S.E.V.P.E.N.

BRAUDEL, F. (1966), *La Méditerranée et le monde méditerranéen à l'époque de Philippe II.* 2nd ed. 2 vols. Paris: A. Colin.

BRAUDEL, F. (1967), *Civilisation matérielle et capitalisme.* Paris: A. Colin.

BRAUDEL, F. (1977), *Afterthoughts on Material Civilization and Capitalism.* Baltimore: The Johns Hopkins University Press.

BRUNET, P. (1960), *Structure agraire et économie rurale des plateaux tertiaires entre la Seine et l'Oise*. Caen: Caron.

CHAMBERS, J.D. (1972), *Population, Economy, and Society in Pre-Industrial England*. London: Oxford University Press.

CHAMPIER, L. (1965), "Lyon et sa région agricole, fin du XVIIIe siècle et première moitié du XIXe siècle." *Actes du 89e Congrès National des Sociétés Savantes. Lyon, 1964. Section de géographie*. Paris: Imprimerie nationale, 33-46.

CHAUNU, P. (1964), "Histoire quantitative ou histoire sérielle," *Cahiers Vilfredo Pareto* No. 3, 165-176.

CHAUNU, P. (1974), "Conjoncture, structures, systèmes de civilisations," *Conjoncture économique. Structures sociales. Hommage à Ernest Labrousse*. Paris: Mouton, 21-35.

CHRISTENSEN, L.R. (1975), "Concepts and Measurement of Agricultural Productivity." *American Journal of Agricultural Economics* 57, 910-915.

CIPOLLA, C.M. ed. (1974), *The Fontana Economic History of Europe*. Vol. II: *The Sixteenth and Seventeenth Centuries*. Glasgow: Collins.

CIPOLLA, C.M. (1976), *Before the Industrial Revolution. European Society and Economy, 1000-1700*. New York: Norton.

CLARK, C. (1957), *The Conditions of Economic Progress*. 3rd ed. London: Macmillan.

CLARK, C (1968), *Population Growth and Land Use*. London: Macmillan.

CLARK, C. and HASWELL, M. (1970), *The Economics of Subsistence Agriculture*. 4th ed. London: Macmillan.

CROUZET, F. (1971), "The Economic History of Modern Europe," *The Journal of Economic History* XXXI, 135-152.

DEANE, P. (1965), *The First Industrial Revolution*. Cambridge: Cambridge University Press.

DE VRIES, J. (1976), *The Economy of Europe in an Age of Crisis, 1600-1750*. London: Cambridge University Press.

DEYON, P. (1972), "La concurrence internationale des manufactures lainières aux XVIe et XVIIe siècle." *Annales E.S.C.* 27, 20-32.

DION, R. (1934a), *Essai sur la formation du paysage rural français*. Tours: Arrault.

DION, R. (1934b), *Le Val de Loire. Etude de géographie régionale*. Tours: Arrault.

DION, R. (1959), *Histoire de la vigne et du vin en France des origines au XIXe siècle*: Paris:

DUBY, G. and WALLON, A. eds. (1975-1977), *Histoire de la France rurale*. 4 vols. Paris: Editions du Seuil.

DUPÂQUIER, J. (1972), "La non-révolution agricole du XVIIIe siècle." *Annales E.S.C.* 27, 80-84.

DUPÂQUIER, J. (1976), "Les caractères originaux de l'histoire démographique française au XVIIIe siècle." *Revue d'histoire moderne et contemporaine* 23, 182-202.

DUPÂQUIER, J. and JACQUART, J. (1973), "Les rapports sociaux dans les campagnes françaises au XVIIIe siècle." *Ordres et Classes*. Paris: Mouton, 167-179.

DUSSART, F. ed. (1971), *L'habitat et les paysages ruraux d'Europe*. Liège: Université de Liège.

FLINN, M.W. (1974), "The Stabilisation of Mortality in Pre-Industrial Europe." *The Journal of European Economic History* 3, 285-318.

FORSTER, R. (1978), "Achievements of the Annales School," *The Journal of Economic History* XXXVIII, 58-76.

FRÊCHE, G. (1975), *Toulouse et la région Midi-Pyrénées au siècle des lumières, vers 1670–1789.* Paris: Editions Cujas.

FRENCH, B.C. (1977), "The Analysis of Productive Efficiency in Agricultural Marketing: Models, Methods and Progress," in L.R. MARTIN, ed. *A Survey of Agricultural Economics Literature*, vol. I, Minneapolis: University of Minnesota Press, 93–206.

GARNIER, B. (1975a), "Pays herbagers et pays ouverts en Normandie, XVIe–début du XIXe siècle," *Revue d'histoire économique et sociale* 53, 493–525.

GARNIER, B. (1975b), "La mise en herbe dans les Pays d'Auge aux XVIIe et XVIIIe siècles." *Annales de Normandie* 25, 157-180.

Géographie et histoire agraire (1959). Annales de l'Est. Mémoire no. 21. Nancy.

GEORGESCU-ROEGEN, N. (1969), "The Institutional Aspects of Peasant Communities: An Analytical View." In C.R. WHARTON, Jr., ed. *Subsistence Agriculture and Economic Development.* Chicago: Aldine Publishing Co., 61-93.

GOUBERT, J.P. (1974), *Malades et médicins en Bretagne, 1770–1790.* Paris: Klincksieck.

GOUBERT, P. (1960), *Beauvais et le Beauvaisis de 1600 à 1730.* Paris: S.E.V.P.E.N.

GOUBERT, P. (1970), "Les campagnes françaises." In F. BRAUDEL and E. LABROUSSE, eds., *Histoire économique et sociale de la France*, Paris: Presses Universitaires de France, II, pp. 85–158.

GOY, J. and LE ROY LADURIE, E., eds. (1972), *Les fluctuations du produit de la dîme. Conjoncture décimale et domainiale de la fin du Moyen Age au XVIIIe siècle.* Paris: Mouton.

GRANTHAM, G.W. (1975), "Scale and Organization in French Farming, 1840-1880." In W.N. PARKER and E.L. JONES, eds., *European Peasants and Their Markets. Essays in Agrarian Economic History*. Princeton: Princeton University Press, 293–326.

HABAKKUK, H.J. (1966), "Historical Experience of Economic Development." In E.A.G. ROBINSON, ed. *Problems in Economic Development.* London: Macmillan, 112-138 and J. MARCZEWSKI, "Comment," 130–134.

HABAKKUK, H.J. (1971), *Population Growth and Economic Development Since 1750.* New York: Humanities Press.

HARTWELL, R.M. (1973), "The Service Revolution: The Growth of Services in Modern Economy, 1700–1914." in C.M. CIPOLLA, ed., *Fontana Economic History of Europe.* III, *The Industrial Revolution.* Glasgow: Collins, 386–94.

HEADY, E.O. (1952), *Economics of Agricultural Production and Resource Use.* New York: Prentice Hall.

HEXTER, J.H. (1972), "Fernand Braudel and the Monde Braudellien." *Journal of Modern History* 44, 480–539.

HOFFMANN, R.C. (1975), "Medieval Origins of the Common Fields." In WILLIAM N. PARKER and E.L. JONES, eds., *European Peasants and Their Markets. Essays in Agrarian Economic History.* Princeton: Princeton University Press, 23–71.

HUFTON, O.H. (1974), *The Poor of Eighteenth Century France, 1750–1789.* Oxford: Clarendon.

JACQUART, J. (1974), *La crise rurale en Ile-de-France, 1550–1670.* Paris: A. Colin.

JOHNSTON, B.F. (1969), "Sectoral Interdependence, Structural Transformation and Agricultural Growth." In C.R. WHARTON Jr., ed., *Subsistence Agriculture and Economic Development.* Chicago: Aldine Publishing Co., 348–353.

JOHNSTON, B.F. (1970), "Agriculture and Structural Transformation in Developing Countries: A Survey of Research." *The Journal of Economic Literature* 8, 369–404.

KATZMAN, M.T. (1974), "The Von Theunen Paradigm, The Industrial-Urban Hypothesis, and the Spatial Structure of Agriculture." *American Journal of Agricultural Economics* 56, 683–696.

KELLENBENZ, H. (1976), "Rural Industries in the West From the End of the Middle Ages mo the Eighteenth Century." In P. EARLE, ed., *Essays in European Economic History*. Oxford: Oxford University Press, 45-88.

KRISHNA, R. (1795), "Measurement of the Direct and Indirect Employment Effects of Agricultural Growth and Technical Change." In L.G. REYNOLDS, ed., *Agriculture in Development Theory*. New Haven: Yale University Press, 297-323.

KUZNETS, S. (1965), *Economic Growth and Structure*. New York: Norton.

LANDES, D.S. (1972), "Development in Western Europe: The Protostatistical Era." In V.R. LORWIN and J.M. PRICE, eds., *The Dimensions of the Past. Materials, Problems, and Opportunities for Quantitative Work in History*. New Haven: Yale University Press, 53-91.

LEBEAU, R. (1972), *Les grandes types de structures agraires dans le monde*. Paris: Masson.

LEBRUN, F. (1971), *Les hommes et la mort en Anjou aux XVIIe et XVIIIe siècles. Essai de démographie et de psychologie historique*. Paris: Mouton.

LECT, D.R. and SHAW, J.A. (1978), "French Economic Stagnation, 1700-1960, Old Economic History Revisited." *Journal of Interdisciplinary History* 8, 531-544.

LEFEBVRE, G. (1974), *Les paysans du Nord pendant la Révolution française*. Lille:Robbe.

LEFEBVRE, G. (1954), *Questions agraires au temps de la Terreur*. 2nd ed. La Roche-sur-Yon, Henri Potier.

LEFEBVRE, G. (1963), *Etudes sur la Révolution française*. 2nd ed. Paris: Presses Universitaires de France.

LÉON, P. (1970), "L'élan industriel et commercial." in F. BRAUDEL and E. LABROUSSE, eds., *Histoire économique et sociale de la France*. Paris: Presses Universitaires de France, II, 499-528.

LÉON, P. (1974), "Structure de commerce extérieur et évolution industrielle de la France à la fin du XVIIIe siècle." *Conjoncture économique. Structures Sociales. Hommage à Ernest Labrousse*. Paris: Mouton, 407–432.

LE ROY LADURIE, E. (1966), *Les paysans de Languedoc*. 2 vols. Paris: S.E.V.P.E.N.

LE ROY LADURIE, E. (1974a), "L'histoire immobile," *Annales E.S.C.* 29, 673-692.

LE ROY LADURIE, E. (1974b), "Les paysans français du XVIe siècle." *Conjoncture économique. Structures sociales. Hommage à Ernest Labrousse*. Paris: Mouton, 333-352.

LE ROY LADURIE, E. (1977), "Les masses profondes: la paysannerie," in F. BRAUDEL and E. LABROUSSE, eds. *Histoire économique et sociale de la France*. Paris: Presses Universitaires de France, Tome I, Vol. II, 483-859.

MALASSIS, L. (1975), *Agriculture and the Development Process*. Paris: The UNESCO Press.

MARCZEWSKI, J. (1964), "Buts et méthodes de l'histoire quantitative." *Cahiers Vilfredo Pareto*, No. 3, 127-164.

MARKOVITCH, T.J. (1974), "La Révolution industrielle: le cas de la France." *Revue d'histoire économique et sociale* 52, 115-125.

MARKOVITCH, T.J. (1975), "L'évolution industrielle de la France du XVIII siècle," *Revue d'histoire économique et sociale* 53, 266–288.

MARKOVITCH, T.J. (1976), *Les industries lainières en France de Colbert à la Révolution.* Geneva: Droz.

MARTIN, L.R. ed. (1977), *A Survey of Agricultural Economics Literature.* I. *Traditional Fields of Agricultural Economics, 1940s to 1970s.* Minneapolis: University of Minnesota Press.

MEUVRET, J. (1946), "Les crises de subsistance et la démographie de la France d'ancien régime." *Population* I, 643–650.

MEUVRET, J. (1968), "La vaine pâture et les progrès agronomique avant la Révolution." *Bulletin de la Société d'histoire moderne.* Série 14, No. 9, 8–14.

MEYNIER, A. (1958), *Les paysages agraires.* Paris: A. Colin.

MEYNIER, A. (1969), *Histoire de la pensée géographique en France.* Paris: Presses Universitaires de France.

MORINEAU, M. (1968a), "Y a-t-il eu une révolution agricole en France au XVIIIe siècle?" *Revue historique* 239, 299-326.

MORINEAU, M. (1968b), "D'Amsterdam à Séville: de quelle réalité l'histoire des prix est-elle le miroir?" *Annales E.S.C. 23*, 178-205.

MORINEAU, M. (1969), "Histoire sans frontière: prix et révolution agricole." *Annales E.S.C.* 24, 403–423.

MORINEAU, M. (1971), *Les faux-semblants d'un démarrage économique: agriculture et démographie en France au XVIIIe siècle.* Paris: A. Colin.

MORINEAU, M. (1974a), "Révolution agricole, révolution alimentaire, révolution démographique." *Annales de démographie historique*, 335–371.

MORINEAU, M. (1974b), "A la halle de Charleville: fourniture et prix des grains, ou les mécanismes du marché, 1647-1821." *Actes du 95e Congrès National des Sociétés Savantes. Reims 1970. Section d'histoire moderne et contemporaine.* Paris: Bibliothèque nationale, II, 159–222.

MORINEAU, M. (1976a), "The Agricultural Revolution in Nineteenth Century France: Comment." *The Journal of Economic History* 36, 436–38.

MORINEAU, M. (1976b), "Le rose et le vert (à propos de son ouvrage sur les faux-semblants d'un démarrage économique... au XVIIIe siècle." *Annales E.S.C.* 31, 407–410.

MOSHER, A.T. (1966), *Getting Agriculture Moving: Essentials for Development and Moderanization.* New York: Praeger.

MYINT, H. (1969), "The Peasant Economies of Today's Underdeveloped Areas." In C.R. WHARTON, Jr., ed., *Subsistence Agriculture and Economic Development.* Chicago: Aldine Publishing Co., 99-104.

NEVEUX, H. (1975), "Bonnes et mauvaises récoltes du XIVe au XIXe siècle. Jalons pour une enquête systématique." *Revue d'histoire économique et sociale* 53, 177-192.

NEWELL, W. (1973), "The Agricultural Revolution in Nineteenth Century France." *The Journal of Economic History* 33, 697–731.

NEWELL, W. (1976), "The Agricultural Revolution in Nineteenth Century France: Reply." *The Journal of Economic History* 36, 438.

PESEZ, J.-M. and LE ROY LADURIE, E. (1965), "Villages désertés en France: vue d'ensemble." *Annales E.S.C.* 20, 257-290.

PHLIPPONNEAU, M. (1956), *La vie rurale de la banlieu parisienne. Etude de géographie humaine*. Paris: Imprimerie nationale.

POST, J.D. (1977), *The Last Great Subsistence Crisis in the Western World*. Baltimore: The Johns Hopkins University Press.

POUSSOU, J.P. (1970), "Les mouvements migratoires en France et à partir de la France de la fin du XVe siècle au début du XIXe siècle." *Annales de démographie historique*, 11-78.

REYNOLDS, L.G. (1975), "Agriculture in Development Theory: An Overview." In L.G. REYNOLDS, ed., *Agriculture in Development Theory*. New Haven: Yale University Press, 1-24.

REYNOLDS, L.G. ed. (1975), *Agriculture in Development Theory*. New Haven: Yale University Press.

RICHET, D. (1968), "Croissance et blockages en France du XVe au XVIIIe siècle." *Annales E.S.C.* 23, 759-787.

ROEHL, R. (1976), "French Industrialization: A Reconsideration." *Explorations in Economic History* 13, 233-281.

ROGERS, E.M. (1969), "Motivations, Values, and Attitudes of Subsistence Farmers: Towards a Subculture of Peasantry." In C.R. WHARTON, Jr., ed., *Subsistence Agriculture and Economic Development*. Chicago: Aldine Publishing Co., 111-135.

ROMANO, R. (1956), *Commerce et prix du blé à Marseille au XVIIIe siècle*. Paris: A. Colin.

ROUPNEL, G. (1922), *Les populations de la ville et de la campagne dijonnaises au XVIIe siècle*. Paris: Editions Ernest Leroux.

RUTTAN, V. W. (1975), "Technology Transfer, Institutional Transfer, and Induced Technical and Institutional Change in Agricultural Development," in L. G. REYNOLDS, ed., *Agriculture in Development Theory*. New Haven: Yale University Press, 165-191.

SAINT-JACOB, P. (1960), *Les paysans de la Bourgogne du nord au dernier siècle de l'ancien régime*. Paris: Les Belles Lettres.

SAUVY, A. (1959), *La montée des jeunes*. Paris: Calman-Lévy.

SCHULTZ, T. (1953), *The Economic Organization of Agriculture*. New York: McGraw Hill.

SION, J. (1909), *Les paysans de la Normandie orientale*. Paris: A. COLIN.

SLICHER VAN BATH, B. H. (1977), "Agriculture and the Vital Revolution." *Cambridge Economic History of Europe. V. The Economic Organization of Early Modern Europe*. Cambridge: Cambridge University Press, 42-132.

SOBOUL, A. (1970), *La civilisation et la Révolution française. I. La crise de l'ancien régime*. Paris: B. Artaud.

SOUTHWORTH, H. M. and JOHNSTON, B. F. eds. (1967), *Agricultural Development and Economic Growth*. Ithaca: Cornell University Press.

THORBECKE, E. ed. (1969), *The Role of Agriculture in Economic Development*. New York: National Bureau of Economic Research.

TILLY, C. (1972), "Quantification in History, As Seen From France," in V. R. LORWIN and J. M. PRICE, eds., *The Dimensions of The Past*. New Haven: Yale University Press, 93-125.

Van der Woude, A. (1975), "The A.A.G. Bijdragen and the Study of Dutch Rural History." *The Journal of European Economic History* 4, 215-242.

Venard, M. (1957), *Bourgeois et paysans au XVIIe siècle. Recherche sur le role des bourgeois parisiens dans la vie agricole au sud de Paris au XVIIe siècle.* Paris- S.E.V.P.E.N.

Vidal de la Blache, P. (1908), *La France. Tableau géographique.* Paris: Hachette.

Vidal de la Blache, P. (1922), *Principes de géographis humaine.* Paris: A. Colin.

Villages désertés et histoire économique. (1965) Paris: S.E.V.P.E.N.

Weber, E. (1976), *Peasants Into Frenchmen.* Stanford: Stanford University Press.

Wharton, C. R. Jr. ed. (1969), *Subsistence Agriculture and Economic Development.* Chicago: Aldine Publishing Co.

Wrigley, E. A. (1967), "A Simple Model of London's Importance in Changing English Society and Economy, 1650-1750." *Past and Present* 37, 44-70.

Young, A. (1931), *Voyages en France en 1787, 1788, et 1789.* Paris: A. Colin.