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EARLY INDUSTRIALIZATION IN EUROPE: CONCEPTS AND PROBLEMS

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THE EXISTENCE of a variety of forms of industry in Europe prior to the advent of factory-based production has been widely recognized and extensively documented. Conventional (largely descriptive) accounts of the European space-economy in the seventeenth, eighteenth and nineteenth centuries give a firm impression of an almost ubiquitous distribution of a wide range of non-agricultural handicraft and manufacturing activities. In total they are thought to comprise a very significant section and aspect of European urban and rural life, although hitherto the urban aspect has been largely excluded from consideration as part of the phenomenon known as 'proto-industrialization'.

Both of the major accounts in English of the historical geography of early modern and modern Europe (C. T. Smith's *An Historical Geography of Western Europe before 1800* and N. J. G. Pounds's *An Historical Geography of Europe 1500-1840*) contain whole chapters on mining and manufacturing in this critical period. The more specialized regional and national monographs, such as A. M. Lambert's *The Making of the Dutch Landscape*, H. D. Clout's *Themes in the Historical Geography of France and Agriculture in France on the Eve of the Railway Age*, provide evidence for and maps of the widespread occurrence of rural and urban industries. At the sub-continental scale or level of description and analysis it is difficult, if not impossible, to focus on the finer details of the interactions of social reproduction and industrial production processes, that is at sub-regional, local and even household levels. It is hardly surprising, therefore, that the explanation in such larger-scale accounts tends to focus on resource bases, environmental influences (via agricultural systems), available technology, and to make fairly general references to markets, although a tighter and more overt conceptual framework could be employed, notwithstanding the bewildering complexity of types of industrial activity and organization to be found in 'pre-industrial' Europe.

The question of scale (which should not need stressing to geographers) is of paramount importance for a fuller understanding of the nature of industrial pursuits in pre-industrial Europe, and needs to accommodate processes operating over a whole range of scales, from very small to very large, from the daily time-budgets and seasonal employment rhythms of peasant and artisanal households to the concept of the articulation of large-scale capital movements and influences at the level of the 'world economy'. Human and historical geographers on the whole have been reluctant to grasp this problem, and the corresponding recognition that hierarchies or nests of scales are involved. Most recent work on the theory and reality of early industrial activity in Europe has been by social and economic historians attempting to understand a major aspect of early modern and modern Europe, namely, the process of what (since 1972)

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has come to be called 'proto-industrialization'. The rapid increase in the literature on this topic (Clarkson, 1985) has occurred at a time when historians have become further enamoured with the concept of the region as a more appropriate scale for analysis than the larger nation-state or global scale. One of the most consistent advocates of this approach, S. Pollard, has suggested that the process of industrialization 'is essentially one of regions, operating in a European context' (Pollard, 1981: vii). The problems of identifying the region (except in very general locational terms) and its interaction with small- and larger-scale territories and systems, however, has largely been omitted from the literature on proto-industrialization.

The historiography of 'proto-industrialization' and its basic concepts are reviewed here only briefly. Although the notion of the expansion of rural industry, without major technical innovation and primarily in areas of agricultural marginality, had been expounded before the 1970s (Thirsk, 1961; Jones, 1968)—usually under the headings of 'domestic industry', 'cottage industry', or 'dual economy'—it was F. F. Mendels's paper, 'Proto-industrialization: the first phase of the industrialization process' (Mendels, 1972), which started a hare which is still running strongly. In essence, he describes proto-industrialization as a process of rural industrialization associated with a dichotomy between pastoral/subsistence farming with cottage industry, and areas of mainly arable, 'commercial' farming without such industry. It is argued that the system of proto-industrial work organization differed markedly from the preceding guilds system and the succeeding system of market factory capitalism. Proto-industrialization in Europe has been characterized in terms of rural location; involvement with industrial production for extra-regional and international markets; organization by merchant capitalists; and, as seen already, this system of production is generally associated with small farms or holdings, predominantly in areas of agricultural and environmental marginality, and geared to seasonal rhythms of production, and distinctive inheritance patterns.

A significant distinction between different systems of organization of production is made in the literature essentially between what are termed the *Kaufsystem* and the *Verlagsystem* (although it must be recognized that these are extreme ideal-types, with a whole range of possible alternative forms in between). The *Kaufsystem* involves independent peasants or artisans selling their industrial products, produced from their own raw materials and using their own machinery, for cash in the market; that is, in general terms, a system where the producers own and largely control the means of production. The *Verlagsystem* is a system, often evolved from the *Kaufsystem*, in which merchant capitalists take over as middlemen in the provision of raw materials and machines and in the marketing of the end-products, paying wages or piece-rates and furnishing credit, and thus to varying degrees separating the workers from the means of production. *Verlagsystem* regions are usually more specialized than *Kaufsystem* regions (Dunford and Perrons, 1983; Schlumbohm, 1981).

To these features has been added, mainly by Medick (1976), a demographic characteristic, namely that proto-industrialization effected lower age at marriage and therefore higher birth rates and population density. The logic of this particular argument revolves around the notion of the need to maximize the total labour force—husband and wife and children—of the peasant household, providing powerful incentives for parents to have more children, the aggregative effect being the breaking-up of the homeostatic equilibrium of pre-industrial populations. The process of proto-industrialization led to a proletarianization and impoverishment of the rural population. The broader conceptual context of this rather loose theory ranges from neo-classical theory—what D. J. Gregory (1981) has called 'ecological-functionalism'—to the more marxist-related view that sees proto-industrialization as a second phase of the transition from feudalism to capitalism, characterized by Gregory as an 'economic-structural' approach.

The concept of proto-industrialization has been extensively criticized on theoretical and empirical/operational grounds. D. C. Coleman (1983) has indicated, for example, that both versions of the theory may be criticized, as representative of a stage theory of economic growth, in the following ways: the timing or chronology (especially for Britain) is wrong; the concept of the region is too loose; there is a wider range of causes

of this phenomenon than those given, not all operating simultaneously; there is not much evidence of proto-industrialization leading to earlier marriage and population growth; the theory rests on the experience of cottage-based and textile industries; and little is said about other more centralized forms of manufacturing, such as mines, mills, furnaces and forges, or about urban industry.

Two geographers, J. Langton and G. Hoppe, have provided interesting and powerful critiques of the concepts (Langton and Hoppe, 1979, 1983). They stress, *inter alia*, the need to look more closely at relationships between town and country, at the functional interrelationships of the family economy and merchant capital, and, in their earlier paper, provide two models of links and flows between town and country.

A common general criticism is that the concept of proto-industrialization is too linear and progressive. C. Tilley (1982) considers that the linear models of European industrialization are wrong, both in concept and in practice, being based on misconceptions such as 'the equation of proto-industrialization with concentration, the identification of proletarianization with concentration, the *a priori* peasantization of the past'. In his view, 'all these ideas have shattered on contact with the research on European economic and social history of the last few decades' (Tilley, 1982: 16–17). In the introduction to their book, *Manufacture in Town and Country before the Factory*, M. Berg, P. Hudson and M. Sonnenscher (1983) indicate the irony of greater activity in the study of early modern society having come from the study of proto-industrialization 'as proto-industrialisation was initially conceived as a linear model of transition to the factory and was based on neo-classical economic assumptions and the theory of comparative advantage' (p. 20). They stress the vital necessity of looking beyond the linear model, with its emphasis on economic variables, to non-economic variables, especially 'to custom and culture embodied in minds and institutions' (p. 30).

Two further strong critiques have been offered by Perlin (1983) and Houston and Snell (1984). Perlin's lengthy critique of the concept is in relation to its applicability to the experience of pre-colonial South Asia. He suggests, citing critiques by Hudson (1981) and Jeannin (1980) in support, that the term proto-industrialization 'masks a complexity of different processes and production relationships . . . [which] need to be pulled apart and separately examined' (Perlin, 1983: 36). The imprecision and teleological character of the term, together with the inappropriate contextualization of the objects of study, form the main theme of his critique, which concludes with a demand for closer scrutiny of the nature and context of payment systems used to mediate the relationship between merchant and producer (the *Kaufsystem* and *Verlagsystem* being no more than ideal-types), and of the precise influence of overseas markets. Houston and Snell in their historiographical review (1984), primarily though not exclusively aimed at Kriedte, Medick and Schlumbohm's *Industrialisation before Industrialisation* (1981), acknowledge the stimulus to research of this theoretical concept, but conclude that, as a result,

'we are still little closer to a general or theoretical understanding of the transition from an agrarian to an industrial world. For this reason, proto-industrial theory will have to be abandoned, and replaced by a less schematic and limiting approach which takes more account of the diversity of European social and economic development in the passage to industrialisation.'
(Houston and Snell, 1984: 492)

How have these concepts been developed and tested in Europe? The literature for Scandinavia, France and Germany provides contrasting views of the nature and validity of the concept. There has been much work on Scandinavia. David Gaunt's work (1977a,b) on demographic change is firmly cast in an ecological/ecosystem mould, one basic premiss being that different demographic patterns are brought forth through differences in the local human ecological situation, 'the economic, social and ecological framework for individual action' (Gaunt, 1977a: 184). Accepting initially, and perhaps somewhat uncritically, that proto-industry leads to population growth and that arable farming tends to be associated with population stagnation, he studied marital fertility and household sizes, using detailed church records, for five parishes principally in Västmanland in central Sweden. In one of the most interesting parishes—

Skinnskatteberg—farming was combined with mining and metal production in a distinctive seasonal rhythm of activity.

‘During the growing season there were the usual tasks connected with crops and hay-making. On top of this there were non-agrarian tasks: in the autumn and early winter the felling of trees and burning of charcoal, the transport of wood to the mines, and pumping out of water from the mines. The actual mining in this part of Sweden was concentrated to a five or six week period in mid-winter. The ore then had to be transported for a blast-furnace and smelted into pig. Once the spring floods began the pig-iron was hammered into bar iron. Thereafter the agricultural cycle began again.’ (Gaunt, 1977a: 188)

Within this community of miner-farmers, as with the mixed farming parishes of the region, populations were stable, households were large (with many servants) and fertility was high. One interesting feature of the miner-farmer parishes was the progressive impoverishment of their inhabitants during the eighteenth century as merchants and nobility effected an increased monopoly and concentration, sometimes resulting in the abandonment of settlements. Gaunt argues that there were probably several demographic structures in pre-industrial Sweden, two of which emerged from his study, one associated with the rich farming areas on the shore of Lake Mälaren, the other with the mixed farming and miner-farming areas.

A number of more broadly based studies of Swedish industry and proto-industry in Norway and Denmark have indicated the difficulty of accommodating widely ranging regional experiences within the Mendels/Medick models. L. Schön (1982) in a study of textiles in Sweden in the mid-nineteenth century, contrasts three regional experiences. In Sjuharädslygden there was increased dependence on domestic industry from the end of the eighteenth century, particularly among the smallholders and landless. Initially linen weaving and then cotton weaving were the major activities, mainly carried out by women. Production took the form of a putting-out system, with merchants and wealthier peasants providing yarn and taking care of marketing. In Ångermanland a different system of peasant production of linen was based on locally grown flax; both men and women were involved, and some peasant control was maintained over marketing. Third, the wool production industry of Norrköping was an urban factory form of production, in part including state-provided woollen factories. In the eighteenth century, ‘centralised weaving and finishing were combined with carding and spinning put out to women outworkers at home. However this outwork was done largely in the towns’ (Schön, 1982: 63). Although penultimately there was overlap between proto-industry and modern factories, in the end external competition resulted in the demise of proto-industry.

L. Magnusson and M. Isacson (1982), in their study of smithcraft in Eskilstuna and southern Dalecarlia, adopt as a definition of proto-industrialization ‘any small-scale production, outside guild control, intended for a distant market’ (p. 74). They indicate two peculiar characteristics of Swedish proto-industry: first, that much of it comprised small-scale peasant iron making, much of it having a tenuous link with agriculture; and second, that the intervention of merchant capital was only partial. Part of this study is concerned with the Eskilstuna Free City, established in 1771 to stimulate the iron industry by permitting the settlement of anyone in iron and steel manufacturing, and to allow a greater measure of freedom for ‘an oppressive *Verlag* system’ (p. 78), in which craftsmen and smiths were extensively indebted to the *Verlag* capitalists, payment to the producers being made in kind rather than cash. The increase in competition from the mid-nineteenth century, especially with imports from England and Germany, gave rise to a concentration and mechanization of production. In the case of peasant smithing in Dalecarlia, the major domestic crafts province in Sweden, metal crafts, including production of scythes, nails, firearms and knives, were of particular importance. In one parish—Älvden—there were 180 smiths in the late eighteenth century; agriculture, as elsewhere, being insufficient to provide a living. In Hedemora parish large numbers of scythes were produced for sale in the eighteenth and nineteenth centuries (the scythe had replaced the sickle for harvesting in south-east Dalecarlia in the sixteenth century, and was in use in central and southern Sweden from c. 1650 onwards). Scythe-making mainly took place in the winter months, with the aid of paid labour. With a reduction in the numbers engaged in part-time labour, production

became concentrated during the course of the nineteenth century—one of the factors influencing decline in the Hedemora district being the expansion of cultivation in a well-founded arable area. The *Verlag* system, however, does not seem to have been very important.

Studies of Denmark by O. Hornby and E. Oxenbøll suggest that there is 'no firm indication that proto-industrialisation in the Mendelsian sense of the word played the decisive role in Denmark's overall industrialisation and subsequent economic development' (Hornby and Oxenbøll, 1982: 37), though there is plentiful evidence for non-agricultural/industrial activity in rural areas, including linen production and the extensive woollen knitting industry of the Jutland heathlands (Hansen, 1983). Other rural industries included pottery and the manufacture of wooden shoes. The one industry which seems to have led on to full industrial production is the woollen knitting industry, with knitting machine 'factories' being developed in the 1870s. As with the Swedish iron industry, the role of entrepreneur was not confined to merchants, for some of the producers undertook this role.

Norway stands out as being different from other Scandinavian countries as far as non-agricultural rural production is concerned (Hovland *et al.*, 1982). Non-agricultural activities abounded, both for the export sector (fish, timber and metals) and within the agricultural sector, notably textiles (handcraft production of woollens, linen) and distilling. However, because of the nature of Norway's geography and economy, the employment normally involved several different sources of income and a complementarity of the seasonal rhythms of production in each sector. In Norway 'the production of consumer goods was much less significant than the production of capital goods and input goods for the export sectors' (Hovland *et al.*, 1982: 55). Additional differences from the Mendels model included a system of direct marketing and minimal control by merchant capital: the putting-out system was very rare. However, 'the history of Norwegian growth in the period following the mid-nineteenth century . . . seems to lend little support to the view that industrialisation was significantly influenced by the extent of proto-industrial forms of economic activity' (Hovland *et al.*, 1982: 56).

One would expect France and Germany to fit the Mendels model more closely, yet here too there are anomalies. Major studies of France make it abundantly clear that such industries were widespread in the eighteenth and early nineteenth centuries. Hugh Clout (1980) indicates that 'craft industries were important in many parts of the French countryside in the 1830s although perhaps less so than in the late eighteenth century' (p. 26). Regions with high densities of population supported by rural industries included rural Normandy and Maine, Picardy, Touraine, Poitou, Languedoc, with the Lyonnais district the principal location of the silk industry. Few villages in France were without workshop trades (Clout, 1977), and those industries which were based on imported raw materials such as silk and cotton tended to be organized by merchants or other capitalists. A number of studies of anomalous practices indicate, however, the complexity of the geography of rural non-agricultural production. G. L. Gullickson (1983), for example, in a study of rural industrialization in the Pays de Caux in Normandy, has shown that commercial agriculture and proto-industrialization *are* compatible, and that the link between proto-industrialization and subsistence farming is not a ubiquitous one. The Pays de Caux was a very large textile putting-out area—one of the largest in France—in the late eighteenth and early nineteenth centuries, while being also a commercial grain-growing region. Important facets of the production systems included: the seasonality of production of grain (there not being enough work in the countryside to keep the harvest labour-force fully occupied); a significant gender division of labour—employment being provided for women in the textile industry; and the connections with the merchants and labour market of Rouen and the urban markets of Paris and centres in England and Spain. Gullickson emphasizes the significance of seasonal unemployment and landlessness (rather than subsistence agriculture), and suggests that proto-industrialization 'was most likely to occur where urban and rural needs complemented each other, that is, where poor peasants, especially poor women peasants, met prosperous textile merchants' (Gullickson, 1983: 850).

Another interesting perspective is that offered by R. Aminzade, in a study of proletarianization, small-scale industry and capitalist industrialization in nineteenth

century France, focused on two studies of small-scale household and handicraft product in *urban* areas: the household silk ribbon industry of St Étienne and the handicraft industries, particularly tailoring and shoemaking, of Toulouse. An important aspect of capitalist development was the changing of class relations in household and handicraft production, involving 'the growing subordination of master artisans in handicraft production to merchant capitalists and of journeymen artisans to nascent capitalist masters and the increased subordination of master weavers in household production to merchant capitalists' (Aminzade, 1984: 348). Aminzade's study is particularly important in that it stresses the need to study *urban* proto-industry as well as rural, and at the scale of the household and similar small units of production, a point recently emphasized by T. Schiel's chapter in a volume of essays on household studies and labour-force formation in the capitalist world-economy (Schiel, 1984). An interesting contribution to the literature on early urban industry and its changes is provided by J. K. J. Thompson's study of variations in industrial structure in pre-industrial Languedoc (Thompson, 1982, 1983). This province had 'the largest concentration of textile production of any area of France during the pre-industrial period' (Thompson, 1983: 61), and experienced significant and non-synchronous change in the different urban textile sectors.

Much of the seminal work on proto-industrialization in Germany is that of the Göttingen group, based in the Max-Planck Institut für Geschichte (Kriedte *et al.*, 1981). J. Schlumbohm's study (1983) of seasonal fluctuations and the social division of labour in relation to rural linen production in the Osnabrück and Bielefeld regions and urban woollen industry in the Niederlausitz in the late eighteenth and first half of the nineteenth centuries indicates that seasonality of production and marketing was strongly mediated by the proximity or distance of the markets—local, national or international. I. Leister's study of rural textile production in Hesse (Leister, 1983) is an interesting pioneer study by a geographer of the vicissitudes of domestic industry. During the course of the sixteenth century the balance of non-agricultural enterprises shifted in rural Hesse from wool and worsted production to flax and linen production, based on a gender and a geographical division of labour. Western Hesse produced medium to fine quality linen, marketed at Frankfurt, while eastern Hesse produced medium to heavy ware—'Hessian'—for which England was a major market. By the mid-nineteenth century, however, competition from English industry and from factory-based production elsewhere in Germany led to the deindustrialization of many of the villages of Hesse, with heavy emigration through to the end of the nineteenth century as a consequence.

Conclusion

The concept of proto-industrialization has been too narrowly conceived, and as such has been less helpful than it might as a basis for the analysis of early industrialization in Europe. While the concept has stimulated a wide and interesting debate, it is clearly in need of revision or even perhaps should be abandoned. With or without the concept, progress undoubtedly can be made in the study of the industrial activities in rural areas in the eighteenth and nineteenth centuries by following a number of interesting lines of enquiry, which includes the links between household, community and regional activities, the role of the merchant and merchant capital, the question of short-, medium- and long-term *temporal* fluctuations in supply, demand and price, and the broadening of the enquiry to a wider range of activities than those conventionally included in the concept of proto-industrialization. Recent work on the West Riding of Yorkshire woollen industry (Gregory, 1982; Hudson, 1981, 1983) has indicated possibilities for studying regional transformations by reference to resource/environmental endowment and to the nature of production systems and capital circuits. The household as a unit of production is now part of a wide literature which goes beyond historical study to problems of contemporary development (Smith *et al.*, 1984), and which can be adapted for the study of rural industry. A helpful broad context for such work has been provided by Schiel (1984) in an historical study of household-based production in Europe in which the relationship between 'family' and 'enterprise' is considered in some detail for pre-capitalist Europe. The temporal aspects of early

industrialization need further analysis via the concepts of time-geography and the more familiar notions developed by economists and economic historians, of 'waves' of capitalist development (Mandel, 1980).

The analysis of the complex processes which influence industrialization necessitates use of an extensive range of concepts and data sources on differing time and spatial scales. This is a task for which geographers, especially historical geographers, are well equipped: unfortunately only a very small number has hitherto risen to this interesting challenge.

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