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Social Mobility and Phases of Industrialization

The study of historical patterns of social mobility inevitably leads to questions about its determinants and to the search for correlations between mobility and industrialization. This paper is not based on any new empirical research on social mobility. Neither can it pretend to be based on an exhaustive reading of the extant literature. Rather, it focuses on the process of industrialization to provide some thoughts on social mobility during the passage of Western societies from the pre-industrial to the industrial age. Included here in social mobility are occupational, status and geographical, and inter- as well as intra-generational mobility. The discussion covers any of these three facets of social mobility when appropriate. A last caveat: this paper includes a typology of industrialization which is not fully and rigorously developed. Rather, the typology is used loosely with the sole purpose of emphasizing certain differences between phases or types of industrialization which are relevant to the study and understanding of social mobility in its various aspects.

The concept of industrialization usually refers to a dichotomy between traditional and modern society and to a more or less drawn-out transition from the former to the latter. For the purpose of analyzing the interactions between industrial change and mobility, it is useful first to recall how social mobility operates in pre-industrial societies. Second, it seems essential to take a close look at the process of industrialization itself and distinguish in it several phases (or types). Finally, it would be one-sided and

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perhaps misleading to consider industrialization and economic development only as exogenous causal factors with respect to social mobility. Industrial development in Western countries was itself shaped in many ways by the stratification within respective countries, by the system of values of their various strata, and by the possibilities for the movement of individuals and groups—movement from employment in low-efficiency, low-earnings, or low-status occupations to employment in occupations with higher efficiency, earnings, or status; or movement from undifferentiated, unspecialized work to the kind of tasks needed in the factory system. Not all societies were endowed with the social and political structure which made such movements possible. To some extent, this structure adapted itself to economic forces and opportunities, but national or regional traditions, or the forces of vested interests, were sometimes persistent enough to slow down or postpone structural adaptation to a rapidly changing environment.

If in the study of social mobility we started from the work of Kuznets and others, we would define the epoch of modern economic growth (or modern industrialization) as one characterized by a "sustained increase in income per capita . . . most often accompanied by an increase in population . . . and by sweeping structural changes. The latter included a reallocation of resources toward non-agricultural activities (industry and services), a massive urbanization of the population, and changes in the relative economic position of groups defined by employment status, attachment to various industries, and level of per capita income."[1] At its own level of abstraction, this is an excellent definition. It means that a functional prerequisite of modern economic growth is a mobility which permits an initially rural, peasant agricultural society to transform itself over time into one where most people live in cities and work in industry and services.

Unfortunately, to look at change in this manner does not help uncover underlying mechanisms with any precision. A given rate of *net* occupational mobility between two dates may conceal much larger and more complex gross flows in and out of occupations. Similarly, the rural-urban transition of the early phases of industrialization resulted from much larger migration flows than would

1 Simon Kuznets, *Modern Economic Growth* (New Haven, 1966), 1. The complete definition given by Kuznets is not relevant here.

appear from merely looking at the changing share of the population that was urbanized. As Wrigley has shown, the growth of London from 7 to 11 percent of the English population between 1650 and 1750 implies that the survivors of at least 17 percent of all the births taking place in the country eventually moved to London. If one could take account of the large movement of return migration, this figure would be even higher. Why such large gross flows were necessary to generate much smaller net changes is explained by the negative natural increase of cities, itself the result of the high urban mortality which prevailed in all European towns until the development of modern hygiene. For instance, the age of continuous growth by natural increase did not begin in Nottingham until 1740.[2] Similarly, the observed decline of the agricultural and the rise of the industrial labor force cannot be attributed to mobility alone on *a priori* grounds. It could have taken place without mobility by the simple effect of differential replacement rates between agriculturalists and industrial workers. As for the rise of services, that could have taken place through the succession by the numerous sons and daughters of the service workers of each generation. This is not what happened. The growing number of vacancies in industry, in the white collar positions, in public and private bureaucracies, and in the professions, was taken up to a large extent by the offspring of other occupational and status groups.[3]

Recent and current historical studies of social mobility during industrialization try to ascertain, by following the mobility pat-

2 Otis D. Duncan, "Methodological Issues in the Analysis of Social Mobility," in Neil J. Smelser and Seymour M. Lipset (eds.), *Social Structure and Mobility in Economic Development* (Chicago, 1966), 51. E. A. Wrigley, "A Simple Model of London's Importance in Changing English Society and Economy, 1650–1750," *Past &Present*, 37 (1967), 44–70. Wrigley's partly theoretical computations are confirmed by the experience of the town of Cardington, 45 miles from London. R. S. Schofield, "Age-Specific Mobility in an Eighteenth-Century Rural English Parish," *Annales de Démographie Historique, 1970* (Paris, 1971), 271. Jonathan D. Chambers, "Population Change in a Provincial Town. Nottingham 1700–1800," in David V. Glass and David E. C. Eversley (eds.), *Population in History* (Chicago, 1965), 334–353; Adna Ferrin Weber, *The Growth of Cities in the Nineteenth Century* (New York, 1899), 230ff; Louis Chevalier, *La formation de la population parisienne au XIXe siècle* (Paris, 1950), 48.

3 A mathematical treatment can be found in Judah Matras, "Differential Fertility, Intergenerational Occupational Mobility, and Change in the Occupational Distribution: Some Elementary Interrelationships," *Population Studies*, XV (1961), 187–197. See also Nathan Keyfitz, "Individual Mobility in a Stationary Population," *Population Studies,* XXVII (1973), 335–352.

terns of well-defined groups during well-defined periods, precisely the manner by which the new vacancies were being filled.[4] Since they carefully measure the regional and temporal variations in the rates and ranges of various types of mobility, the vision of industrialization which is exemplified by the definition quoted above is not congruent with the level of analysis needed in the new studies of mobility. I will propose here a taxonomy of industrialization and suggest for each phase (or type) actual or plausible relationships between selected aspects of social mobility and certain economic forces.

In order to enhance one's understanding of the effect of industrialization on social mobility, consider how, by contrast, social mobility operated in a pre-industrial society. One's grasp of the mechanisms at work will be tighter if one imagines an ideal-type "medieval" society predominantly made up of a homogeneous peasantry. There are some craftsmen, churchmen, soldiers, and men of government, but their small numbers are fixed by guild restrictions or other statutory norms.[5] This mythical society is peaceful and placid, so that great redistributions of land or status which result from plunder, murder, war, epidemics, famine, riots, or mass migration do not occur. The land available for agriculture is abundant but entirely settled and used, and is transmitted hereditarily, for there is no land market, or leasing of land by one peasant to another. It appears that in this mythical medieval society status and occupational and geographical mobility work hand in hand with the inheritance system, the population's net rate of reproduction, and its family structure. One can illustrate this from the demographic pattern. Assume that families have many children surviving to adulthood—as determined by some combination of fertility and mortality—but only one heir to the father's

4 Stephan Thernstrom, *Poverty and Progress* (Cambridge, Mass., 1964); the essays in Stephan Thernstrom and Richard Sennett (eds.), *Nineteenth-Century Cities* (New Haven, 1969); Michel Papy, "Professions et mobilité à Oloron sous la Monarchie Censitaire d'après les listes de recrutement militaire," *Revue d'histoire économique et sociale,* XLIX (1971), 225–264; P. E. Razzell, "Statistics and English Historical Sociology," in R. M. Hartwell (ed.), *The Industrial Revolution* (Oxford, 1970), 101–120. The common methodology is described in Thernstrom, "Reflections on the New Urban History," in Felix Gilbert and Stephen R. Graubard (eds.), *Historical Studies Today* (New York, 1972), 320–336.

5 See Lutz K. Berkner and Franklin F. Mendels, "Inheritance Systems, Family Structure, and Demographic Patterns in Western Europe (1700–1900)," in Charles Tilly and E. A. Wrigley (eds.), *Historical Studies of Fertility* (forthcoming).

farm, occupation, and status: then all the children but one, the heir, will experience mobility.

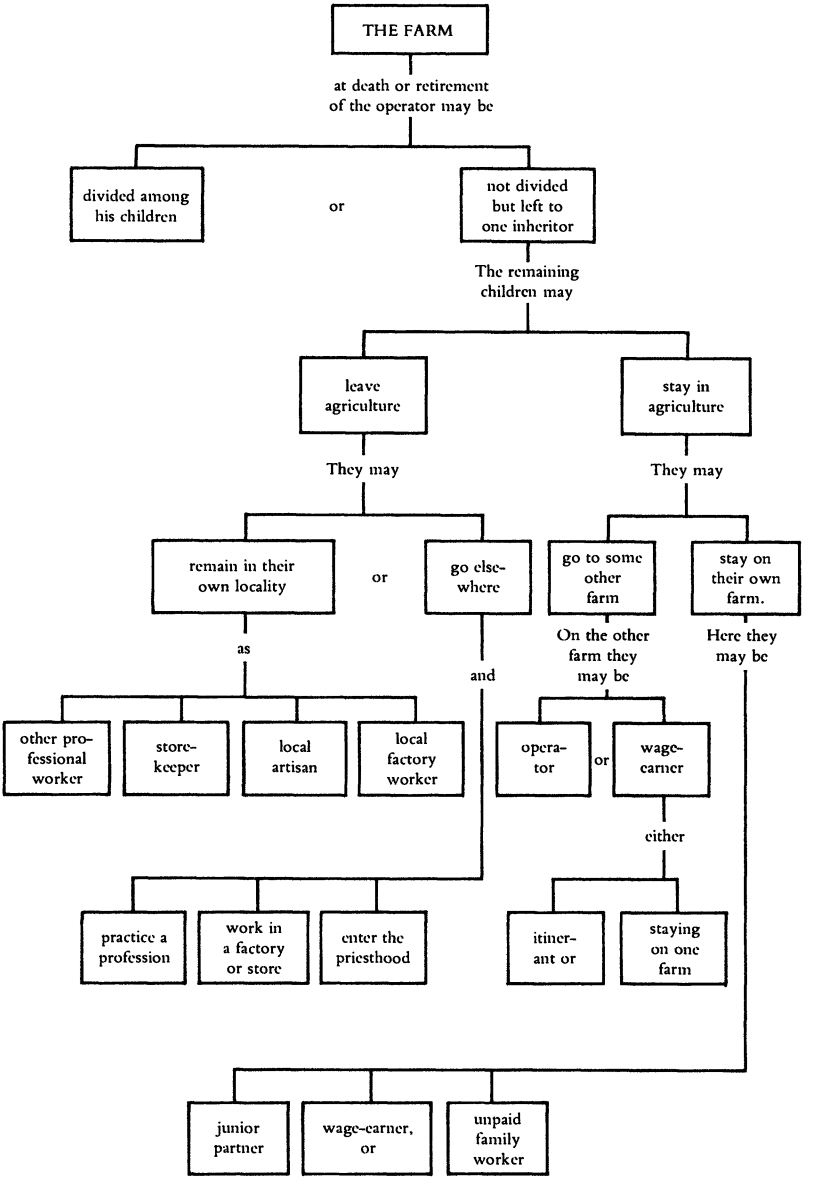
Figure 1 shows all the possibilities for non-heirs in a modern setting where non-agricultural employment is not rigidly constrained. Thus, in thirteenth-century Weston (Lincolnshire) where land partibility was limited, out of sixty-eight sons, nine entered the church and twenty-six (38 percent) emigrated from the village. In the neighboring village of Moulton, where partibility prevailed, the percentage of departures was only 23 percent. But was not mortality so high in a medieval village that replacement rates rarely surpassed 1.0? Data for 1270 show that the average Weston family produced 1.86 live adult sons and Moulton families produced 2.5. English replacement rates did fall below 1.0 in the period 1348–1450, but that was an exceptional time of plague and suffering.[6] Postan has explicitly made the link between replacement rates and mobility through opportunity for young men to find land. "When men were so plentiful, and land so scarce, the normal advancement of men by succession was denied to many—perhaps most—of the young people."[7]

Suppose, on the one hand, that extended families are the norm, while replacement rates are high. The non-heirs stay on the farm with the inferior status of celibate helper, except for those who move out, marry an heir, or obtain an occupation in a craft, in the church, or in the army. If, on the other hand, nuclear families are the norm, then the heir hires servants and workers instead of his unmarried kin to help on the farm. These servants and workers are themselves non-heirs from other peasant lineages. The loss of status that non-heirs suffer in comparison with their own father's is probably more serious if they have to hire themselves out as servants and laborers than if they stay celibate on the ancestral farm as in the case of the extended family. Moreover, geographical mobility is higher since there is a crossing of village limits to find positions. One can see that in this type of society the predominant status mobility flow for the largest section of the

6 H. E. Hallam, "Some Thirteenth-Century Censuses," *Economic History Review*, X (1958), 340–361. Sylvia Thrupp, "The Problem of Replacement Rates in Late Medieval English Population," *ibid.*, XVIII (1965), 101–119. T. H. Hollingsworth, *Historical Demography* (Ithaca, 1969), 378–379.

7 M. M. Postan, *The Cambridge Economic History of Europe,* (Cambridge, 1966, 2d ed.), I, 564.

Fig. 1 Career Paths for Farmers' Children



SOURCE: Nathan Keyfitz, "Population Problems," in Marcel Rioux and Yves Martin (eds.), *French-Canadian Society* (Toronto, 1964), I, 225; reprinted by permission of McClelland and Stewart, Ltd., Toronto, and the Carleton Library Board.

population, the peasantry, is downward. Chances of status improvement exist for the peasantry but are confined to the replenishment of the ranks of the church and army and to marriage with an heir. The higher the net reproduction rate, the stronger the downward flow.

If partible inheritance prevails, however, all the male offspring split the land at each generation. Male geographical mobility is constrained.[8] All of the sons stay in the village and acquire the father's occupation and status of a German *Bauer*, a Flemish *landsman,* an English yeoman, or a French *laboureur.* The prevailing norm of family organization determines whether farms are actually split or not by the division of property. Partible inheritance does not result in splitting of farms in the (relatively rare) case where all the heirs stay together as joint households. Fragmentation takes place if families are nuclear. A downward trend of status mobility is experienced to the extent that nuclear families are formed in the context of a high net rate of reproduction, since farms eventually become very small. However, if all lineages reproduce themselves at the same rate, the contraction of holding size depresses the income of all the peasants proportionately, without affecting their relative position.

In order to accommodate a rapidly growing population, the society may split into a class of heirs and one of non-heirs, thereby

8 In reality, the range of variation in inheritance systems is much broader than the opposition presented here between strict partibility and strict impartibility. Moreover, some additional possibilities are neglected, for instance the variation of retirement customs. In some cases the father handed over the land to his heir at the time of the latter's marriage in exchange for a written promise of support. In others, inheritance only occurred after the father's death. See Berkner, "The Stem Family and the Developmental Cycle of the Peasant Household: An Eighteenth-Century Austrian Example," *American Historical Review*, LXXVII (1972), 398–418. In some places, it was the custom to send the children off as servants of other households, perhaps temporarily. This fact introduces another dimension to the relationships between family structure and mobility. See Schofield, "Age-Specific Mobility," 261–271; Peter Laslett, *The World we have lost* (London, 1965), 14ff; Peter Laslett and John Harrison, "Clayworth and Cogenhoe," *Historical Essays 1600–1750, presented to David Ogg* (London, 1964), 170. For extensive discussions of inheritance systems in relation to family structure or demographic patterns, see, among others, Berkner and Mendels, "Inheritance Systems"; G. C. Homans, *English Villagers in the Thirteenth Century* (Cambridge, Mass., 1942), 109–222; Rosamond Jane Faith, "Peasant Families and Inheritance Customs in Medieval England," *Agricultural History Review,* XIV (1966), 77–95; Philip J. Greven, Jr., *Four Generations: Population, Land, and Family in Colonial Andover, Massachusetts* (Ithaca, 1970); H. J. Habakkuk, "Family Structure and Economic Change in Nineteenth-Century Europe," *Journal of Economic History,* XV (1955), 1–12.

generating a distinct social stratification. Or it may preserve a fairly homogeneous peasant class at the cost of depressing the incomes of all. As Smith observed, "How property is divided among heirs is always one of the determinants of class structure, powerful in proportion as other ways to wealth are closed. When completely closed, what a man inherits must fix his class position permanently and perhaps even that of his descendants through several generations. This situation was approximated in most parts of rural Japan in the seventeenth century."[9]

The pace at which class structure shapes itself depends on demographic determinants. The reasoning presented here assumes that the latter are given from the start, as well as the inheritance practices and family structure, an assumption only used for expository purposes. One must realize that these three data in fact interact. We simply do not know that any one set of them is more stable or at least more "given," thus more determining, than the others.[10]

The model which has been developed here is overly simple and its assumptions constraining. However, it is useful in the sense that relaxing its underlying premises is somewhat analogous to reading descriptions of social and economic changes that historians give of European countries emerging from the Dark Ages. New land is cleared in Europe or conquered overseas. Agricultural technology permits a better utilization of the existing land. Industrial occupations as well as positions in the tertiary sector of the economy are opened up. Cities grow, commodity markets expand, and a market in land is established. For instance, next to Weston and Moulton in Lincolnshire, the village of Spalding had deviated considerably from the ideal type as early as the thirteenth century. Out of 180 freemen, 25 percent bore the names of trades or professions. Most of the land was fragmented into tiny holdings and 20 percent of the 426 tenants lived on bought land. Many people settled in cottages along the river banks or the market place, and it appears that "commercial and industrial factors were

9 Thomas C. Smith, *Agrarian Origins of Modern Japan* (Stanford, Cal., 1959), 37.

10 The choice of an exogenous and determining variable is somewhat arbitrary but often seems related to one's relative ignorance. The more superficial one's understanding of a variable is, the more likely one is to treat it as given and determining.

more important in deciding the social structure of Spalding than inheritance customs."[11]

These changes have one effect in common, namely, to disengage occupational, status, and geographical mobility processes from the mechanism by which land is obtained, improved, increased, and passed along to the next generation. Indeed, it is very hard to find in a country such as France a small area in which the importance of inheritance rules is not mitigated, in early modern times, by the existence of leaseholds, by a land market, by nearby rural industries, let alone by the presence of a growing town. Even apparently isolated Pyrenean valleys, such as the valleys of the Ariège near Foix, the Bigorre, or the Valley of Aure, with their abundant sources of water power, provided a fertile ground for iron and textile industries.[12] This is not to say that the family-inheritance-population links cease to operate; only that they operate in a much larger network of interacting forces and therefore lose most of their determining power. It would therefore be an enormous task to construct a single model of mobility for an industrializing society. Presented instead are some thoughts on how the processes of mobility were linked with economic change according to the phase or type of industrialization in which an economy was engaged.

Well before the Industrial Revolution, various regions of Europe experienced an unprecedented growth in manufacturing. This type of "industrialization," however, was still remote from what is usually meant by the term. In particular, it was not carried out in factories and with machines coordinated to one source of power. There was nothing that prefigured the assembly line, yet it was not merely a growth of handicrafts for local markets. This causes some semantic ambiguity and has led me to define a phase of "proto-industrialization."[13] A number of features characterizes this phase and separates it from other subsequent phases of indus-

11 Hallam, "Some Thirteenth-Century Censuses," 348. Paul R. Hyams, "The Origins of a Peasant Land Market in England," *Economic History Review,* XXIII (1970), 18–31.

12 In eighteenth-century Flanders, inheritance law was far less important to explain what happened than market forces: Mendels, "Agriculture and Peasant Industry in Eighteenth-Century Flanders," in William N. Parker and E. L. Jones (eds.), *European Peasants and Their Markets* (Princeton, 1975), 179–204. Michel Chevalier, *La vie humaine dans les Pyrénées ariégoises,* (Paris, 1956).

13 Mendels, "Proto-industrialization: The First Phase of the Process of Industrialization," *Journal of Economic History,* XXXII (1972), 241–261.

trialization. On the one hand, the industrial role of cities was confined to a rather small share of manufacturing employment. One could thus say that there was industrialization without cognate urbanization. On the other hand, it was in the cities that the final stages of various production processes were carried out, e.g., those which were most intensive in the use of highly skilled craftsmen commanding high wages. The cities also gathered the men of enterprise who "put out" the work to be done by the peasants of the outlying districts or by urban craftsmen, or who purchased the finished goods sold by independent self-employed peasants at the weekly market and organized their sale to other regions or countries. Towns traded in agricultural goods and accommodated the *rentiers,* the professional men, and the men of government. And of course all these functions created employment opportunities for domestic servants and shopkeepers.

The growth of cities and the opportunities thus created for upward social mobility within them, as well as for movement into the city from the surrounding countryside, were small during this phase in comparison with what was to come later. But, as we have seen, the fact that growth was sluggish did not preclude a sizeable fraction of the surrounding rural population from moving to the city anyway. Undoubtedly, many of these migrants were pushed out rather than pulled in; they simply joined the ranks of the vagrants and beggars and came to the cities because the charitable institutions and asylums were there. But, as capital requirements in both trade and industry were very small, and as the level of skills required for success in business and industrial ventures did not go far beyond literacy, both capital and skills could be acquired in a few years. Therefore, artisans with some spirit of enterprise could become merchant-manufacturers more easily than in the early seventeenth, and certainly more easily than in the late nineteenth century.[14]

If we now look at the situation in the countryside during this period, what is characteristic of the regions which are launched on the path of proto-industrialization is the domination of strong forces favoring downward social mobility. The introduction of new opportunities for land-saving occupations in the village considerably modified the mechanisms through which wealth and

14 See Dorothy Marshall, "La structure sociale de l'Angleterre du dix-huitième siècle," in Roland Mousnier (ed.), *Problèmes de stratification sociale* (Paris, 1968), 101–116.

status were passed on from one generation to the next. A cottage industry made it possible for families to survive in the countryside on very small holdings of land, since the produce of that land could be supplemented by another source of sustenance. This might have led to improved standards of living. But some demographic studies show that areas which turned to cottage industry tended to attract immigration, had earlier and more marriages, and had higher fertility than other rural areas. And there are many regions of Europe where an impressive growth of this type of manufacturing was accompanied by equally impressive poverty. This seems to have been the case among the peasants in the interior of Brittany, in Bas-Maine, the Beauvaisis, the interior of Flanders, Limburg, Overijssel, Ulster, and many other regions. In these European societies, where status was closely associated with ownership or control over landed property, if, from generation to generation, an increasing percentage of families did not have enough land to support themselves—although often too much to be called landless—downward status mobility would result. Furthermore, this loss of land was compounded in some areas by the loss of control over the tools of their industry by peasants who previously had owned them. This was another step downward on a path which ultimately led to a total dependence on wages and the labor market.[15]

Another process led in the same direction. Agricultural progress in regions of commercial farming was as characteristic of the phase of proto-industrialization as was the growth of cottage industry in areas of subsistence farming. The form of agricultural progress in this phase had certain effects on social mobility. The consolidation of plots and the appropriation of common lands resulted in pushing many of those who were already at the lower rungs further down to the ranks of landless wage earners. This did not necessarily mean a loss of income or employment. On the contrary, since the process of "enclosures" was accompanied, in-

15 Mendels. "Proto-industrialization," 249–253; G. E. Mingay, *Enclosure and the Small Farmer in the Age of the Industrial Revolution* (London, 1968), Karlheinz Blaschke, "Soziale Gliederung und Entwicklung der sächsischen Landbevolkerung im 16. bis 18. Jahrhundert," *Zeitschrift fur Agrargeschichte und Agrarsoziologie,* IV (1956), 144–155; Kenneth Lockridge, "Land, Population, and the Evolution of New England Society, 1630–1790," *Past & Present,* 39 (1968), 62–80; Pierre Léon, *Economies et sociétés pré-industrielles 1650–1780* II (Paris, 1970), II, 330–346. On the loss of control over tools, Paul Mantoux, *The Industrial Revolution in the Eighteenth Century* (London, 1961, rev. ed.), 64–65.

deed stimulated, by increased demand for agricultural products, and since the new rotation techniques then introduced tended to be labor-intensive or to require at least temporary increases in labor demand for hedging, etc., the newly created agricultural wage earners could find employment easily in the countryside—so they did not *have to* flock to the cities.[16] But they had become wage earners, nevertheless, and this was perceived as lower status.

A different facet of social mobility, namely migration, was also characteristically affected by proto-industrialization. One economic change in this phase was the increased interaction between agriculture and manufacturing in the countryside. The divergence which has been observed between the areas of subsistence farming and those of commercial agriculture gave rise to increased efficiency, and not only through the normal effects of division of labor and specialization. The subsistence farming areas exported labor, their surplus resource, to the commercial farming areas. As demand for labor in farming was highly seasonal, only a small fraction of the laborers hired for the summer were needed for the rest of the year on the commercial farms. It was easiest for commercial farms to hire workers for only a few weeks when there existed nearby an area which could export them. The growth of cottage industry in subsistence farming areas, by promoting the settlement in some areas of a dense population, helped the development of commercial farming. The development of rural industry near an area with seasonal agricultural labor needs made it unnecessary to use the gangs of migrant laborers that annually descended from the hills, mountains, or poor lands of Europe to the rich fertile plains.[17] One could instead tap the large local supplies by way of short-distance migration.

Since there is a shortage of rigorous empirical studies of social mobility during this phase of industrialization, the picture I have been drawing of the relations between mobility and economic change remains hypothetical. The hypothesis can be summarized

16 Chambers, "Enclosure and Labour Supply in the Industrial Revolution," in E. L. Jones (ed.), *Agriculture and Economic Growth in England, 1650–1815* (London, 1967), 94–127.
17 Roger Béteille. "Les migrations saisonnières en France sous le Premier Empire. Essai de Synthèse," *Revue d'histoire moderne et contemporaine,* XVII (1970), 424–441; Mendels, "Industrialization and Population Pressure in Eighteenth-Century Flanders," unpub. diss. (University of Wisconsin, 1970), 109ff; Arthur Redford, *Labour Migration in England 1800–1850* (Manchester, 1964, rev. ed.), 3–6, 141–149; Abel Châtelain, "Les migrations temporaires françaises au XIXe siècle," *Annales de démographie historique, 1967* (Paris, 1967), 9–28.

in the statement that as work constantly alternated between agriculture and manufacturing, the peculiar sort of occupational mobility which resulted had no parallel in terms of status mobility, but proto-industrialization promoted increases in both upward and downward status mobility from different causes. Finally, by helping the settlement of labor close to where agriculture needed it seasonally, it tended to reduce the need for the seasonal immigration of manpower from remote areas. Was proto-industrialization in turn affected by prevailing modes of social mobility? Did mobility facilitate the process of proto-industrialization?

Landes, Kemp, and Perkin have assigned a determining role to social stratification and mobility.[18] At a general level it is argued that more flexible definitions of class and a higher degree of mobility have facilitated the process of industrialization in England. Conversely, it is said that the comparative *ease* with which successful French businessmen used their new wealth to climb up and out of the business world partly explains French backwardness. The same role has been assigned to the existence of a very large and open *hidalgo* class in Spain. Finally, when one considers that mobility may have even declined in England during the crucial decades preceding its industrial revolution, it seems that the argument that comparative ease of upward mobility into a privileged, old-regime upper class facilitated economic progress by providing achievement incentives is dubious at a general level. What remains, however, is that England was a country where the nobility had no legal definition or privileges, and where up and down movements between the aristocracy and the merchant class were comparatively frequent. The actual practice of primogeniture among the upper levels of English society meant that the younger sons of English nobles commonly had to work for a living. In France the nobility avoided division of the land as well, but titles and such privileges as tax exemption were passed down even to the non-heirs. Moreover the rules of *dérogeance* placed a strong deterrent in the way of younger sons going into trade and industry (except long distance trade, glass making and mining) since it would entail a loss of highly valued status and privileges. The incentives to purchase an office in the Church, army, or bureaucracy

18 David Landes, *The Unbound Prometheus* (Cambridge, 1969); Tom Kemp, *Industrialization in Nineteenth-Century Europe* (London, 1969); Harold Perkin, *The Origins of Modern English Society, 1780–1880* (London, 1969).

were all the stronger, and this reduced the flow of skills and capital into trade and industry.[19]

We can see the results of these social values on the development of agriculture. The possession of a country estate was a prerequisite to social prestige, but to make it into a profitable possession by careful personal supervision would be less rewarding than engaging in "conspicuous consumption" in the neighboring town, in Paris, or in Versailles. This meant that the immediate aim and long run policy of many French landlords was to squeeze as much surplus from the peasantry as was possible, thus removing any incentive on the part of the latter to improve yields. The manner in which taxes were assessed at this period had the same depressing effect on the peasantry insofar as the burden of the *taille* (from which nobles, clergy, and many towns were exempt) was distributed by the villagers in accordance with apparent wealth. The tax system, in other words, added its effects to the value system by reinforcing the strict compartmentalization of French society.[20] These differences between French and English society first appeared long before the beginnings of industrialization. Their persistence in the eighteenth century is the result of political forces, so that it would be fair to say that these differences played the role of an exogenous variable in the process of economic change.

Many of the characteristics of proto-industrialization (such as the continued importance of rural industries) did not disappear with the end of this phase and the beginning of the next. Nevertheless, it is comparatively easy to locate the coming of the second phase of industrialization, for the defining novelty of that new phase was the introduction of the factory system and the new industrial organization which it entailed.[21] In the phase of industrial history which preceded the introduction of the factory system, the

19 Lawrence Stone, "Social Mobility in England, 1500–1700," *Past & Present*, 33 (1966), 16–55; Alexis de Tocqueville (ed. J.-P. Mayer), *L'ancien régime et la Révolution* (Paris, 1964); Landes, *Prometheus,* 67, 129; Habakkuk, "England," in Albert Goodwin (ed.), *The European Nobility in the Eighteenth Century* (New York, 1967, rev. ed.), 1–21; Joan Thirsk, "Younger Sons in the Seventeenth Century," *History,* LIV (1969), 358–377; R. B. Grassby, "Social Status and Commercial Enterprise under Louis XIV," *Economic History Review,* XIV (1961), 19–38.

20 Tocqueville, *L'ancien régime,* 170, 209.

21 For a discussion of the processes which led to the Industrial Revolution and the manner in which proto-industrialization paved the way for further changes, see Mendels, "Proto-industrialization," 241–247.

growing number of households engaged in industrial work had not yet become fully specialized. Typically, agriculture and industry had complemented each other on each farm, and the family household along with its servants remained the focus of production and consumption as well as the fundamental unit of decision-making in family life. The creation of full-time, centralized, and specialized employment now caused disturbances in the household. Specialization and division of labor first meant the end of the traditional alternation of tasks between agriculture and industry. It also meant the separation of the workplace from home, and, sooner or later, the separation of family members during their working hours. To the extent that factory work demanded more attentiveness than dexterity or strength, a large fraction of the factory labor force could be constituted by children.[22]

Whether the introduction of the factory system facilitated upward social mobility is part of a larger debate, with an extensive literature, on the social consequences of the Industrial Revolution. First, that wages were often higher in factories than in the domestic system does not prove much. Rents and food prices were higher in the cities, and income from factory work could not be supplemented as easily with other sources as could rural domestic work with wages earned from harvest work or from the produce of one's own plot. Moreover, the wages had to be higher in the factories to compensate workers for the drudgery of coordinated and disciplined tasks. For this seems to have been the most detestable part of factory work: the regularity and monotony involved in it. From the means that had to be used in the early days by the factory masters, it appears that this kind of industrial organization was most undesirable for the workers. There are cases when the recruitment of the labor force was achieved through the penitentiary system.[23]

Second, the mechanization of a given industrial process naturally meant severe downward pressure on the earnings of those industrial workers who were eventually replaced or displaced by it. Since the factory system was not introduced in all in-

22 Neil J. Smelser, *Social Change in the Industrial Revolution* (Chicago, 1959), 180–312.

23 Sidney Pollard, *The Genesis of Modern Management* (Baltimore, 1965, 2d ed.), 189–231; the penitentiary in Ghent, Belgium, was turned over to textile manufacturers after the end of the eighteenth century. See also Roger Portal, "Serfs in the Urals Iron Foundries in the Eighteenth Century," in Val Lorwin (ed.), *Labor and Working Conditions in Modern Europe* (New York, 1967), 17–30.

dustries or processes at the same time and pace, not all categories of workers were affected in this manner at the same time either. The story of the shifting relations between the status and earnings of spinners and weavers, as spinning and weaving were modernized in a piecemeal fashion, has often been told.[24] This phenomenon was repeated in several industries during this phase.

Third, the separation of the family in different places of employment could result in the disintegration of the authority of the head of household, especially if his wife or children could earn a wage in the factory that could match or surpass his own. This was the case for the cotton handloom weavers during their period of decline. Nevertheless, it must also be recalled that the early textile factories sometimes hired entire families and, in such cases, the relative position of family members was maintained.[25]

Fourth, a large part of the first generation of factory workers was made up not of déclassé skilled artisans but of rural landless laborers. Was it downward mobility for the landless son of a small Irish peasant to end up in the factory after some years spent as summer harvest labor and in casual winter work?[26] It is therefore impossible to generalize on the balance of forces which led to upward or downward status mobility for the working class in this complex, revolutionary phase of industrialization. Specific groups experienced gains or losses in their status and income due to economic and technological forces which varied according to time, place, and occupation.

However, more can be said about other types of mobility. The rise of the factory system was accompanied by rapid urbanization and the growth of such new industrial centers as Barmen, Roubaix, and Manchester. Older cities also grew through the immigration of wage laborers, servants, craftsmen, and unskilled industrial workers. Furthermore, somewhat more definite statements can be made in this phase about status mobility for the middle and high levels of society. Skilled artisans as well as shopkeepers were then most favorably affected by the prevailing economic trends. This was a phase when skilled artisans were needed among

24 Mantoux, *Industrial Revolution,* 189–310; Landes, *Prometheus,* 84–87.

25 Smelser, *Social Change,* 188.

26 See Thernstrom, "Notes on the Historical Study of Social Mobility," *Comparative Studies in History and Society,* X (1968), 166, 168; Eric E. Lampard, "The Social Impact of the Industrial Revolution," in Melvin Kranzberg and C. W. Pursell, Jr. (eds.), *Technology in Western Civilization* (New York, 1967), I, 315–316.

the factory labor force in supervisory positions and for the nonrepetitive tasks of maintaining and repairing tools and machinery. Few skilled artisans were yet replaced and downgraded by machine work in these early years. Those who were downgraded were among the unskilled ones, whose tasks had begun to be simulated by the still simple machines.[27] There were, moreover, numerous artisans during this phase who could enter the managerial or entrepreneurial ranks in their own lifetime. It was an age of unprecedented opportunities for those already endowed with skills, capital, or entrepreneurship. And the amounts of skill and capital needed were still such that they could be accumulated by individuals over a few years.[28]

Social mobility patterns, in turn, had an effect on the possibilities of industrialization under the factory system. The French "land reform" of the revolutionary period provides a good example of such mechanisms when it is compared with the effect of the German land reforms of the first half of the nineteenth century. The French land reform reinforced the control of the peasantry over the land it cultivated. This can be set against the disappearance of the peasantry in England and Germany. Here, peasants were finally able to gain personal freedom, but had to purchase it by surrendering a certain fraction of the land over which they previously had control. For many it meant descent into the ranks of the landless; whatever land remained in their hands was insufficient for sustenance, and they were likely to sell it in order to move to the city or to areas where rural wage labor was in demand. Meanwhile, those who were initially better off were able to consolidate and augment their holdings by purchasing at low prices the land that fell on the market in this manner.[29] Here is an example of the exogenous and causal effect of mobility patterns on industrialization for there is no doubt that the paths taken by "land

27 There are exceptions, like the wool croppers. See E. P. Thompson, *The Making of the English Working Class* (New York, 1966, 2d ed.), 521–533.

28 Herbert G. Gutman, "The Reality of the Rags-to-Riches 'Myth': The Case of the Paterson, New Jersey, Locomotive, Iron, and Machinery Manufacturers, 1830–1880," *Nineteenth-Century Cities,* 98–125; Eric J. Hobsbawm, *The Age of Revolution* (New York, 1964), 218–237.

29 Kemp, *Industrialization,* 81–118; Werner Conze, "Agrarian Reform in Central Europe," in G. S. Métraux and François Crouzet (eds.), *The Nineteenth-Century World* (New York, 1963), 86–103. Wolfgang Köllmann, "Les mouvements migratoires pendant la période d'industrialisation de la Rhénanie-Westphalie," *Annales de Démographie Historique, 1971* (Paris, 1972), 91–120.

reform" in France and Germany resulted more from political struggles than from previous industrialization. The effects of these struggles on the pace at which factory industrialization proceeded must have been important. The French peasantry was not pushed as strongly into the labor market, agricultural or industrial, as it would have been otherwise. Many of the French peasants, however, did not hold enough land to subsist on agriculture alone, so they complemented their incomes with the product of their rural manufacturing. As long as they stayed on the land and drew some income from it, their manufacturing wage rate, actual or implicit, could remain lower than the subsistence wage rate of urban workers who had no such complement. This helped to slow down the pace of factory-industrialization in France. Furthermore, the effect of the land reforms was not solely felt through the supply of labor: the poor but solidly established peasantry did not provide the modern industrial sector with a mass market for its products. It was not only that much was produced locally, but also that patterns of demand among the peasantry must have been less favorable for the growth of mass-produced consumer goods than would be the case among an urban population.[30]

The next phase (or type) of industrialization to consider is one where producers' goods are predominant in output or employment, or in shaping the growth of a particular locality. This phase, which can also be called the age of steel, was characterized by the rise of heavy industry as the leading sector. Advanced countries of Western Europe entered into it during the second half of the nineteenth century, although its chronological as well as conceptual borders with the previous phase are blurred. It must have induced a number of important changes in the processes of social mobility.

First, the development of heavy industry considerably increased fixed capital requirements over the previous phase. The more complex machinery also demanded much higher levels of technical skills among broad sections of the labor force; perhaps among the operators, but surely among those who designed and maintained them. As such industries now benefited from economies of scale, the advantage passed to the big industrial concerns whose administrations in turn created an unprecedented de-

30 Landes, *Prometheus,* 127–138, 187–192.

mand for white-collar employees. The considerable progress of engineering had an impact on the countryside as well as the cities. It was in this period that certain technical problems involved in attempting to mechanize the traditional industries were finally solved, as, for example, in wool combing. This determined the progressive but now irreversible decline of a number of handicrafts which had hitherto been protected from technological unemployment by their intricate nature. The demise of these last remnants of the old manufacturing system had a great impact. The disappearance of handicrafts from the countryside and the continued expansion of factory employment opportunities sharply increased the pace of rural depopulation. As this was also a phase when railroads were being built, large-scale population movements were being facilitated. But they created serious shortages in the countryside—the big farms could no longer rely on the summer work of the former peasant-craftsmen, who were now emigrating permanently. Mechanical reapers and other labor-saving machinery had to be introduced to replace them. I have selected the characteristics of this phase which strike the eye for their novelty. One must keep in mind that the continuing development of cities did also help the number and prosperity of shopkeepers as well as those in the building trades and other small-scale enterprises, all of which continued quantitatively to be of great importance in national economies.[31]

Thus, on the one hand, in view of the much increased capital requirements of new factories, this was no longer the age of individual entrepreneurs. Spectacular rises in business were more likely to need the mustering of scattered sources of capital in joint-stock companies or through the intermediation of financial institutions. Both the corporation and the bank were at the source of the creation of a large class of professional and clerical white-collar employees. As the capital accumulation necessary for in-

31 Philippe Pinchemel, *Structures sociales et dépopulation rurale dans les campagnes picardes de 1836 à 1936* (Paris, 1957), 106–120; John Saville, *Rural Depopulation in England and Wales,* 1850–1950 (London, 1957), 20–30. E. J. T. Collins, "Labour Supply and Demand in European Agriculture, in E. L. Jones and S. J. Woolf (eds.), *Agrarian Change and Economic Development* (London, 1969), 61–94; Paul M. Hohenberg, "Change in Rural France in the Period of Industrialization, 1830–1914," *Journal of Economic History,* XXXII (1972), 227–231; T. J. Markovitch, "The Dominant Sectors of French Industry," in Rondo Cameron (ed.), with the assistance of F. Mendels and J. Ward, *Essays in French Economic History* (Homewood, Ill., 1970), 237–240.

dustrial success reached beyond the means of individuals, it is not surprising that a certain closing of opportunities for individual advancement through industrial or commercial success has been observed.[32] It resulted also from the rising technical complexity of most sectors of the economy which manifested itself among the managerial ranks of industry and in the development of large bureaucracies. On the other hand, there were enough areas left to small-scale enterprise; once more, it is hard on a priori grounds to make any general prediction.

A crucial novelty of this age with respect to the optimum path for social advancement was the importance of formal education. In the first, revolutionary phase of the Industrial Revolution in England, there initially had been a decline in literacy but jobs were being created which did not need literacy. The rising literacy of the 1830s may well have "led merely to a decline in mobility because the new jobs were not such as to absorb the literate in any case, in contrast, for example, to the creation of the vast clerk class at the end of the nineteenth century."[33] Indeed it is in this phase of industrialization that primary education first became a prerequisite for employment in a large section of the labor force, among the skilled factory workers as well as the growing army of white-collar workers. On the one hand, education opened up new avenues for social ascent because large corporations had a growing need for engineers, draftsmen, accountants, lawyers, etc. More generally, formal education facilitated inter-generational status improvements by opening rewarding careers to graduates of educational institutions whose entrance requirements were becoming, at least formally, blind to family origins. On the other hand, the bureaucratization of economic activity must have modified mobility patterns by curbing intra-generational mobility. Formal education acquired during youth, if it led to a recognized diploma, would place the laureate at the bottom of a hierarchical scale which

32 Perkin, *Modern English Society,* 424–428; Charlotte Erickson, *British Industrialists: Steel and Hosiery, 1850–1950* (Cambridge, 1959), 12, 56, 93, 129, cited in Perkin, *Modern English Society,* 425; Irene D. Neu and Frances W. Gregory, "The American Industrial Elite in the 1870s: Their Social Origins," in William Miller (ed.), *Men in Business* (New York, 1962), 193–211.

33 M. Sanderson, "Literacy and Social Mobility in the Industrial Revolution in England," *Past & Present,* 56 (1972), 102; Carlo M. Cipolla, *Literacy and Development in the West* (Baltimore, 1969), 62–99; Lenore O'Boyle, "The Problem of an Excess of Educated Men in Western Europe, 1800–1850," *Journal of Modern History,* XLII (1970), 471–495.

he would ascend with seniority. Formal education acquired at an early stage now strongly determined the life pattern of income and promotion for an increasing number of people.[34]

Cross-national comparisons, once more, show that social institutions could have had important effects on patterns of industrialization. The English economy experienced some setbacks in this period while the German and American economies were pulling ahead. Landes has assigned a large share of responsibility for English retardation to an educational system which failed to provide the economy with the needed skills, contrary to the German case. The English continued to rely much longer on the acquisition of skills by individuals through experience and on recruitment by patronage. The more rigid and authoritarian style of social interaction and stratification which prevailed in Germany nonetheless led to the creation of a schooling system and pattern of recruitment more favorable for rapid economic expansion. And yet it could hardly be said that it was previous backwardness in England which had in any sense prepared the way by bringing with it a schooling system of the German type. The creation of this school system can be traced back to the late eighteenth century. It must be ranked as an independent and exogenous event with largely unanticipated effects. The remarkable fluidity of English social stratification in the first two phases of industrialization undoubtedly contributed to the flourishing of industrial enterprise through individual initiatives. But this kind of mobility was no longer sufficient to promote industrial development under the economic conditions prevailing in this phase of industrialization.[35]

The last phase of industrial history began when the movement toward urban-industrial concentration was reversed in the late nineteenth century in Europe as well as in America. The rise of new sources of energy, petroleum and electricity, and the perfecting of the internal combustion engine contributed to a modification of the balance of costs and benefits of urban-industrial concentration at nodal points. The automobile and truck allowed a new flexibility not afforded by the railroad system. The use of electricity in industry also slowed down the trend toward

34 Hobsbawm, *The Age of Revolution,* 229.

35 Landes, *Prometheus,* 339ff, 348; O'Boyle, "An Excess of Educated Men," 485. See Margaret Scotford-Morton, "Some English and French Notions of Democracy in Education," *Archives Européennes de Sociologie,* VIII (1967), 152–161.

concentration which the steam engine had imparted.[36] The decentralization of industry was thus accompanied by the suburbanization of cities. Most of the economic forces which determined patterns of social mobility in the previous phase continued to operate in this new one as well. What had been said about the importance of education continued to be true. But the declining benefits of concentration could have been linked to new patterns of mobility. As the new industries, employing the largest proportion of highly skilled workers and employees, settled in the suburbs or the countryside (e.g., Princeton and Hightstown, New Jersey), rapid economic growth modified the social structure of the city itself. Upward mobility was accompanied by emigration from the city. The service industries, the banks, and the headquarters of many national corporations first remained in the center of the city, but the emergence of a new technology of communications rapidly diminished the advantages of central location for them as well.

The centrifugal forces characteristic of this phase also meant that countries where such forces were not given free rein, or where others counteracted them strongly, experienced economic difficulties. It is true that postwar French growth has been rapid, but one may justly wonder how much more rapid it would have been if a number of customs and institutions had not prevented the decentralization of the secondary and tertiary sectors instead of promoting the continued growth of Paris and its suburbs.[37] It has been a part of the national tradition of government and social life of that country for a long time that almost every initiative flows from the capital, leaving little power in the hands of localities. One result has been that migration to Paris has been a necessary means of upward social mobility. Whereas in another phase of industrialization this was a force promoting modernization (but it did not operate strongly then in France because of a peculiar rural social structure), its perpetuation in the contemporary world is an anachronistic force which causes a great misallocation of resources.

36 William N. Parker, "Economic Development in Historical Perspective," in Nathan Rosenberg (ed.), *The Economics of Technological Change,* (Baltimore, 1971), 137–147; Alexander Gerschenkron, "City Economies—Then and Now," in Oscar Handlin and John Burchard (eds.), *The Historian and the City* (Cambridge, Mass., 1963), 46–72; Eric Lampard, "The History of Cities in the Economically Advanced Areas," *Economic Development and Cultural Change,* III (1955), 124–126.

37 J. F. Gravier, *Paris et le désert français* (Paris, 1947); Tocqueville, *Ancien Régime,* 98–158.

This is an example of the persistence of a social pattern through several phases of industrialization, pointing to the need to consider national styles of social stratification and mobility as independent variables, not only as variables determined by economic development. Crozier's analyses of French society show how certain permanent traits in the national tradition of group or class interactions have affected the manner in which change and innovation could be introduced in that country throughout its modern history.[38] He argues that, on the one hand, there have been high barriers to mobility and communication between any levels of French society, class to class, profession to profession, or stratum to stratum within an occupation. On the other hand, there has been a high degree of egalitarianism within each of these levels, and much esprit de corps and camaraderie which make it possible to balance the strong centralizing tendencies. These characteristics and their multiple ramifications compose what he calls the "bureaucratic" system of social organization, entailing a certain pattern of social mobility and also explaining certain peculiarities of French economic history. The responsibility to innovate is left in the hands of the centralized authority of the state or the remote central headquarters of the company, at any rate not in the hands of those who are most directly affected by the innovation. The latter resist innovation which would disturb the social equilibrium prevailing at their level by leading to the promotion of some and the demotion of others. Although this style of social organization does not deter inventiveness, it does not provide a fertile ground for its practical application and therefore tends to prevent continuous change. When innovations are adopted by the force of blatant necessity, they are introduced from above, in a radical and sudden manner, and with considerable delays. An example would be the introduction of the railroad in France, postponed for several years by conflicts among vested interests until the legislature finally passed a law in 1842 outlining in a grand master plan the whole French network and the relations between the state and private enterprise.[39]

38 Michel Crozier, *Le phénomène bureaucratique* (Paris, 1971, 2d ed.), 247–347. For related aspects of French social structure, see Edmond Goblot, *La barrière et le niveau* (Paris, 1967, 2d ed.), 1–40; Jesse R. Pitts, "Continuity and Change in Bourgeois France," in Stanley Hoffmann et al., *In Search of France* (Cambridge, Mass., 1963), 235–304.

39 Arthur L. Dunham, *La révolution industrielle en France (1815–1848)* (Paris, 1953), 41–72.

What can an economic historian offer to those who undertake monographic studies or syntheses of social mobility during industrialization? Not much in terms of specific predictions. First, social mobility patterns are not unilaterally determined by what happens in industry or in the economy; on the contrary, the two mutually affect each other. Second, the interactions between mobility and economic change vary according to the type or phase in which a given local, regional, or national economy finds itself. Third, various kinds of mobility in a given period result from a number of economic changes, not all of which operate in the same direction. On theoretical and a priori grounds alone, therefore, there is little that can be said. Even for pre-industrial societies, which, in contrast, seem simpler to understand, predictions on the course of mobility can be made only for such particular economic and social structures that very few societies satisfy the conditions under which a model of mobility can be constructed at all. Only empirical research can reveal the course of mobility during industrialization in a given time and place.

On the other hand, an economic historian can certainly offer insights into some of the causative links which have operated in specific contexts, as I have done, for instance, for the phase of proto-industrialization. Focusing on the growth, persistence, transformations, and ultimate demise of rural (and urban) artisans reminds one that much is lost by assuming that industrialization is a linear process, and that comparing the two end points of that process should yield insights into social structure and mobility during the period examined. And yet, even though there is abundant information available on the artisan industries, modern economic historians themselves have failed to give them the place they deserve in abstract models and generalizations. Thus, students of mobility should not be blamed first if they experience difficulties in relating their findings to the dominant paradigms of economic history. A systematic and analytical economic history of artisan industries would be one step in bridging a gap.