

# Evolving Structure of the French Urban System

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# URBAN GEOGRAPHY

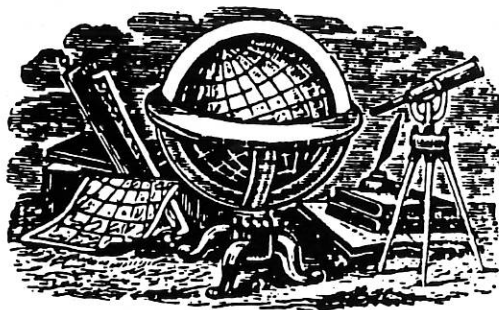
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EVOLVING STRUCTURE OF THE FRENCH URBAN SYSTEM

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## EVOLVING STRUCTURE OF THE FRENCH URBAN SYSTEM

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During the last 30 years, most industrialized countries have experienced very rapid urbanization, followed by a slowing of urban growth. Despite a slight delay in the urbanization process (44% of French people were still living in rural areas in 1954), the French urban evolution was not basically different from that of other industrialized countries. During the same period many changes occurred in the economic and social characteristics of cities and in urban life. In other studies (Pumain and Saint-Julien, 1978; Saint-Julien, 1982), we have tried to assess the distribution of these changes throughout the French urban system.

Studies that focus on the set of cities in a particular nation are still not numerous (e.g., for Britain, Spence et al., 1981) and when available are rather difficult to compare for at least three reasons: (a) the theory concerning the evolution of urban systems is insufficiently developed; (b) data are difficult to obtain; and (c) the methodology for the study of change is not well established.

The concept of a "system of cities," although still controversial (Berry, 1964; Chapman, 1977), offers a very interesting theoretical framework. The search for constants in the evolution of urban networks leads to questions about modes of regulation (i.e., diffusion of innovations, reduction of inequalities, maintenance of the general structure) and modes of adaptive behavior (i.e., structural reorganization, complexification, decrease or increase in variety) in the system. Curiously, these questions also arose quite naturally from our empirical results.

The results of disaggregated study of growth and socioeconomic characteristics of 100 to 400 largest French towns for the last 30 years underline the interdependencies of certain developments in the urban system as a whole. Most changes were common to every town, thus demonstrating the persistence of the main principles of interurban differentiation, especially as far as the "image de marque" and the size of towns are concerned. Some smaller fluctuations tended to reorganize secondary disparities along a dimension of economic and social modernity. This analysis could illuminate some problems of the French urban system that may arise in the near future.

The empirical study of change also encounters many problems. The most unavoidable is the problem of quantifying a change between two dates when the same variables and even the same nomenclature have a different qualitative significance. A more serious problem is the lack of data that would permit the study of the real functioning of an urban system. Except for data about migrations, very little information is available about the interurban flows that embody the relationships and interdependencies in the urban system. For this reason we used only relationships of spatial association and temporal covariation to construct representations of urban differentiation and evolution as an indirect approach to the functioning of the system. Parr (1980), however, underlined the need for international comparisons of such studies of the main dimensions of urban systems. Techniques of multivariate analysis and their derivatives

applicable to the study of change are particularly well suited to this kind of exploratory work. Table 1 shows which data have been considered to characterize the French urban agglomerations and which methods have been used to define a structure for the urban system and to study its evolution.

We here mention only the main results of our study.<sup>1</sup> Several hypotheses have been considered:

—According to Berry (1972), among the latent dimensions which reveal the organization of an urban system, the economic bases of towns should be distributed independently of all the other structural characteristics. We tried to verify this affirmation in the particular content of the French urban system.

—In considering the restructuring effects of recent economic growth, Aydalot (1976) and Lipietz (1978) emphasized the modifications in the major principles of interurban differentiation in the last 30 years. The spatial division of labor operates more upon the qualification levels of the labor force than upon the nature of economic activities. According to these authors, the structural variety in an urban network should now depend upon social specializations due to growing geographical disparities in job qualifications. This hypothesis also needs to be tested.

—During the period of unprecedented urban growth, the French authorities kept a close eye on the expanding urban network. In a context of policies leading to the decentralization of first the industrial and then the tertiary activities, the choice of eight "métropoles d'équilibre" (1964), the decision to create new towns in the Paris region (1965) and later in the vicinity of Lille, Lyon and Rouen, the contracts for the development of medium-sized towns from 1972 and for small districts from 1975 ("contrats de pays"), are major features of a general policy for the reequilibration of the national territory. Despite the difficulty of evaluating the influence of these policies on the observed evolution of the French urban system, we tried to discover the effects of some of them.

### SIMILARITIES IN THE URBAN TRANSFORMATION PROCESSES

Twenty years of growth and 10 years of economic crisis did not markedly alter the traditional imbalances of the French urban network. Although the transformations in economic activities, labor, urban life, urban population, and spatial growth were spectacular, they occurred almost simultaneously and with about the same intensity in every town so that the relative positions of cities in the urban system or, in other words, the main features of the urban system's configuration, were not markedly modified. The general nature of those changes is the defining characteristic of recent French urban history.

#### *Demographic Growth*

For a long time, France was essentially a rural country and its rate of urbanization remained lower than that of other industrialized European countries. After World War II, however, urban growth in France was very rapid (more than 1.8% per year between

TABLE 1.—DATA BASE AND METHODS APPLIED TO THE ANALYSIS OF STRUCTURAL CHANGE IN FRENCH URBAN SYSTEM

Variables	Number of Agglomerations				
	1954	1962	1968	1975	1980
Labor force by economic sector (20 or 25 categories)	139 <sup>1</sup>	139	139		
Labor force by occupational status (10 categories)	139		139		
(24 categories)			222	409 <sup>2</sup>	
Mean wages		88 <sup>3</sup>	88		
Wealth index	88		88		
Growth rates		409		409	409
Composition of internal migration flows by economic sector and economic status			100	100	
Job qualification (10 levels for production and services)				409	409

<sup>1</sup> 139: Agglomerations with more than 20,000 inhabitants in 1954.

<sup>2</sup> 409: Agglomerations with more than 10,000 inhabitants in 1975.

<sup>3</sup> 88: Agglomerations with more than 50,000 inhabitants in 1968.

*Analysis of structural situation.* Principal components analysis and correspondence analysis, cluster analysis (correspondence analysis as a cluster analysis using a chi-squared distance measures specialization in about the same way that location quotients do).

*Analysis of structural change.* *General tendencies of change* are found by submitting both tables describing the socioeconomic situation of each agglomeration at the beginning and at the end of the period simultaneously to correspondence or to principal components analysis. This "analysis of states" describes the trajectories of the agglomerations from one position to another through the structure of the urban system and gives an evaluation of global change. *Differential changes* are displayed by a factorial analysis applied to the regression residuals of each variable measured at the end of the period with itself at the beginning. General change is then eliminated from the factorial structure obtained, which figures differential change only. Agglomerations are positioned after their relative change in labor force composition between the two dates, in a way independent of their initial situation.

TABLE 2.—EVOLUTION OF URBAN POPULATION (1954-1982)

Year	Urban Population (millions)	Urbanization Rate (%)	Annual Growth Rate (%)
1954	28.1	58.6	1.9
1962	29.5	63.4	1.8
1968	35.5	71.4	1.1
1975	38.4	72.9	0.4
1982	39.9	73.4	

1954 and 1968). The rate of urbanization increased from less than 60% in the middle 1950s to more than 70% in the late 1960s. A slowing down occurred between 1968 and 1975 (with an annual growth rate of 1.1%) and much more abruptly in the recent period (0.4% between 1975 and 1982), as shown in Table 2. This sudden decrease in urban growth reflects more than the deterioration of the French demographic situation, for example, decrease in fertility and in immigration rate, since the reduction in growth rate was only cut by half for total population (0.8% between 1968 and 1975 and 0.46% between 1975 and 1982).

In the 1975-1982 period the rural population grew much faster than the urban (1.1% against 0.4%). This occurred for the first time in more than a century. It can be considered as a major inversion of migration tendencies since the natural increase of rural communes is still negative due to overrepresentation of older people. Indeed, the growth of the rural population is less a question of rural renewal than a question of extension of urbanization toward areas which are more and more distant from the centers of the agglomerations.

Between 1954 and 1962, mean growth rates were higher and higher when ascending in the hierarchy of urban sizes (from 0.9% for towns having between 2,000 and 5,000 inhabitants to 2.5% for those having between 100,000 and 200,000). The reasons were essentially the increasing values of net migration rates and of the natural growth with town size. In cities with more than 200,000 inhabitants, both rates had lower values. Nevertheless, those largest cities have taken a big share in the urban growth. Almost a quarter of the newly urban people were gathered by Paris agglomeration alone between 1954 and 1962.

In contrast, during the 1962-1968 period, a clear reduction of inequalities in growth and net migration rates was apparent. The smallest towns (up to 50,000 inhabitants) had accelerated growth rates (more than 1% per year), whereas the growth rates of agglomerations with 50,000 to 200,000 inhabitants, although still growing at the fastest rate, decelerated (less than 2% per year). Between 1968 and 1975, amplification of these tendencies led to new modes of growth repartition in the urban hierarchy (Table 3). The end of massive rural emigration reduced the role of that form of migration in urban growth (from more than 50% to less than 30%). Except for the Paris agglomeration, whose growth rate was very low (0.5% per year), every level of urban hierarchy developed at about the same rate (between 1.1% and 1.6%).

The abrupt decrease in the growth rate of urban population between 1975 and 1982 was perceptible in the same proportion (reduction of about one-half) in every

TABLE 3

Size of Z.P.I.U (1) (thousands)	Annual Growth Rate (%)	
	1968-75	1975-82
P A R I S	0.97	0.29
400-2,000	1.03	0.37
100-400	1.57	0.67
10-100	1.08	0.54

*Note:* Z.P.I.U. (Zones de Peuplement Industriel et Urbain) is a functional delimitation for urbanized areas, larger than agglomerations.

town size class. Medium-sized metropolitan areas (100,000-400,000 inhabitants) remained the most dynamic, as shown in Table 3.

Despite a rather large persistence of the values of the growth rates of individual urban units from one period to another (correlation of 0.46 between 1954-62 and 1962-68, 0.57 between 1962-68 and 1968-75, and 0.60 between 1968-75 and 1975-82 for the 409 urban units having more than 10,000 inhabitants in 1975), this differential growth did not perceptibly change the relative position of cities in the size hierarchy of the urban system.

#### *Tertiarization of the Socioeconomic Structure*

In its amplitude and generalization, the tertiarization of the activities and social profiles of French towns has been the main recent process of urban change. Amplitude can be expressed by the large variation of the average proportion of tertiary activities in the urban labor force (from 55% in 1954 to almost 60% in 1975, see Table 4). The generalization of this trend appears in the similarity of the trajectories of most of the towns along the first axis of a factorial analysis of their economic or social profiles<sup>2</sup> (Fig. 1). Since the former factor is mainly an indicator of the unequal degree of industrialization in the urban system, the upward oriented arrows show a change in the labor force composition toward an increasing share of tertiary activities or of tertiary jobs. Though it began as early as 1954 in some towns, this move has generalized since 1962 and was especially intense until 1968. After a relative slowing down between 1968 and 1975, it is again the most marked tendency of urban change.

This translation of the whole set of cities corresponds to a transition of towns toward new modes of production and exchange for which the services become the most determinant activities. It also reflects the contemporary mutation in urban labor and urban society.

#### *The Substitution Process*

The third main component of urban change was a generalized substitution of growing activities and social groups for declining ones. In the functional structure, this substitution process can be seen in the trajectories of the towns along a scale where activities are ordered according to their relative growth or decline, independent of

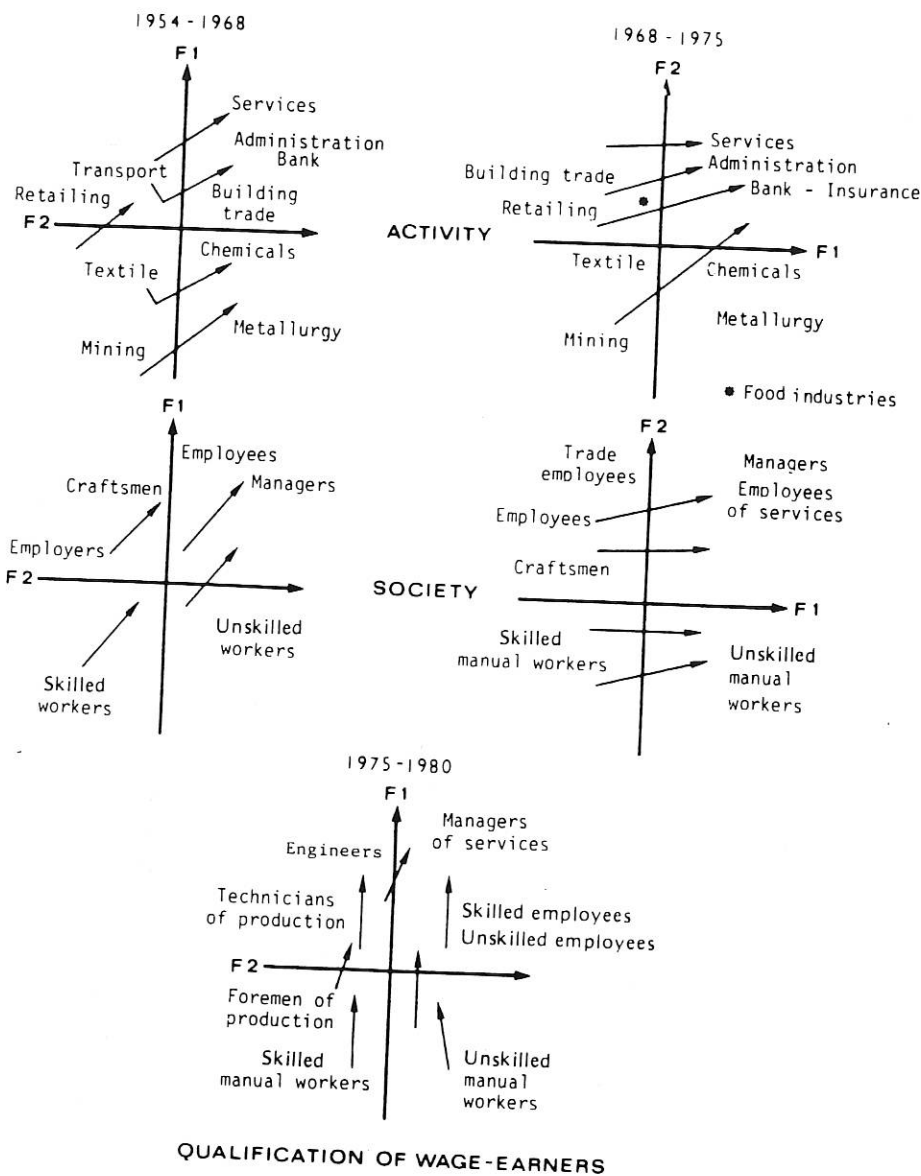


Fig. 1. Tertiarianization and substitutions: General tendencies of change between 1954 and 1980.

their industrial or tertiary character and of their weight in the urban labor force (Fig. 1). In the social structure, the process expresses the relative deterioration of the traditional bases of urban power, such as employers of the industrial and trading sectors and craftsmen.

Demographic growth, tertiarization of socioeconomic structure, and substitutions among activities and social groups diffused in the urban system in such a manner that



TABLE 4.—STABILITY OF URBAN SOCIOECONOMIC STRUCTURE

Economic-activity Groups	Factor 1		Factor 2		Factor 3		Average Weight of Each Group (%)	
	1954	1975	1954	1975	1954	1975	1954	1975
	0.5	0.4	0.2	0.4	-0.1	0.1	1.7	1.4
Mining	-0.2	-0.5	0.5	0.5	-0.2	-0.2	8.8	9.2
Building-trade	0.5	0.7	-0.0	-0.2	-0.3	-0.4	13.2	15.6
Metallurgy	0.1	0.2	0.0	0.2	0.2	-0.0	3.3	3.9
Chemicals	-0.3	-0.3	0.3	0.2	0.6	0.6	3.6	2.2
Food-products	0.3	0.4	-0.4	0.0	0.3	0.7	9.4	4.0
Textile and clothing	-0.1	-0.1	-0.4	-0.2	0.2	0.6	5.3	3.6
Other industries	-0.2	-0.2	0.5	0.0	0.4	-0.0	7.2	4.7
Transport	-0.3	-0.5	-0.1	-0.2	0.3	0.2	4.2	3.4
Wholesale trade	-0.4	-0.4	0.5	0.7	0.6	0.1	4.2	3.4
Food retail trade	-0.7	-0.7	0.0	0.4	0.1	0.0	6.8	7.8
Other retail trade	-0.4	-0.5	0.2	0.5	0.2	-0.3	3.4	2.3
Hotel trade	-0.7	-0.6	0.2	-0.4	-0.0	0.1	3.0	2.9
Insurance banking	-0.4	-0.6	0.3	-0.0	0.3	-0.2	0.8	2.4
Professional services	-0.8	-0.6	-0.2	0.0	-0.0	-0.2	4.2	1.5
Domestic services	-0.8	-0.8	-0.2	0.1	-0.1	-0.0	7.6	9.6
Services to households	-0.4	-0.3	-0.0	0.0	-0.2	-0.1	1.2	1.0
Water, electricity and gas services	-0.8	-0.5	-0.2	-0.4	-0.3	0.0	1.7	2.0
Transmissions	-0.8	-0.7	-0.1	-0.4	-0.4	-0.0	8.4	15.0
Administration	-0.3	-0.2	0.2	-0.2	-0.2	-0.3	2.0	2.0
Defense								
	25%		10%		6%		100	100

Socio-professional Groups							2.3	1.2
Employers (large firms)	+0.7	+0.5	-0.5	-0.8	+0.2	-0.0	12.2	6.0
Employers (small firms)	+0.5	+0.2	-0.8	-0.8	+0.8	-0.2	4.6	7.3
Senior executive-managers	+0.8	+0.8	+0.4	+0.4	-0.0	-0.0	8.6	14.6
Executive staff	+0.8	+0.8	+0.4	+0.4	-0.1	-0.0	17.0	20.5
Employees	+0.8	+0.8	+0.4	+0.2	+0.0	+0.3	25.7	18.8
Skilled manual workers	+0.8	+0.8	-0.2	-0.2	-0.5	-0.1	19.0	22.6
Unskilled manual workers	-0.8	-0.8	+0.2	-0.0	+0.7	+0.2	4.2	1.8
Domestic services	-0.6	-0.9	-0.1	-0.3	-0.1	+0.4	9.4	4.2
Other personal services	+0.8	+0.5	-0.3	-0.4	+0.3	+0.0	3.4	2.9
Others	+0.7	+0.7	-0.3	-0.4	+0.3	-0.8		
	+0.6	+0.4	+0.1	+0.2	-0.7			
	51%	45%	15%	20%	10%	10%	100	100

Correlations between urban social categories and the first three factors of a principal component analysis (140 largest towns in 1954).

	1st factor	2nd factor	3rd factor
Economic activities	.9	.7	.6
Social categories	.9	.9	.5

Correlations between each factor in 1954 and the correspondent one in 1975.

common changes were much more important than the specific transformations in each town. As a result the configuration of the whole urban system remained rather stable. The main traditional imbalances were not profoundly altered during these last 30 years.

### THE INHERITED MAIN PRINCIPLES OF INTERURBAN DIFFERENTIATION

#### *Persistency of Functional Specialization*

The modalities of spatial distribution of the most concentrated industrial activities, which operated until the middle of the twentieth century, determined very pronounced functional specializations in the French urban system. The rearrangement of the distribution pattern of industries which operated for the last 30 years has certainly attenuated the most extreme specializations. The monolithism of some urban situations has been reduced, and the geographical distribution of production activities has broadened considerably. At the same time, a certain, though slow, acceleration in the spatial division of labor has contributed to the creation of new tertiary specializations in some towns (particularly for service). These are only slight modifications of a general organization in which the most extreme specializations have been inherited from the first industrial revolution (Fig. 2). The new modes of interurban division of labor have not been strong enough to alter this pattern.

#### *Upholding of the Main Socioeconomic Disparities*

Between 1954 and 1975, the first dimension of the urban system remained very similar (correlation of .8, Fig. 3). It orders the towns according to the quality level of their "image de marque" (brand image): this term points out a basic factor of interurban differentiation, tied to their attractivity level in the mental representations of the urban network. It combines the main economic orientation (production or service), the chief social characteristic, the level of wealth, and the type of demographic evolution (Fig. 4). The "image de marque" opposes then at both extremes urban agglomerations where tertiary activities are associated with favored social groups, which are wealthy, rapidly growing and very attractive (e.g., Cannes, Aix-en-Provence, Nice, Montpellier) and urban agglomerations marked by heavy industries, with many workers, a low standard of living, stagnated population growth, and unbalanced interurban migrations (e.g., Lens, Denain, Forbach, Montceau-les-Mines). This dimension of socioeconomic structure corresponds to the traditional geographical contrast between the less industrialized towns of western and southwestern France and those of its northern, eastern, and central-eastern parts. In 1980, the spatial pattern of the qualification of the labor force continues to show that the major interurban disparities result from the unequal distribution of jobs in production (Fig. 1).

### DIFFERENTIAL URBAN EVOLUTIONS: TOWARD A STRUCTURAL REORGANIZATION?

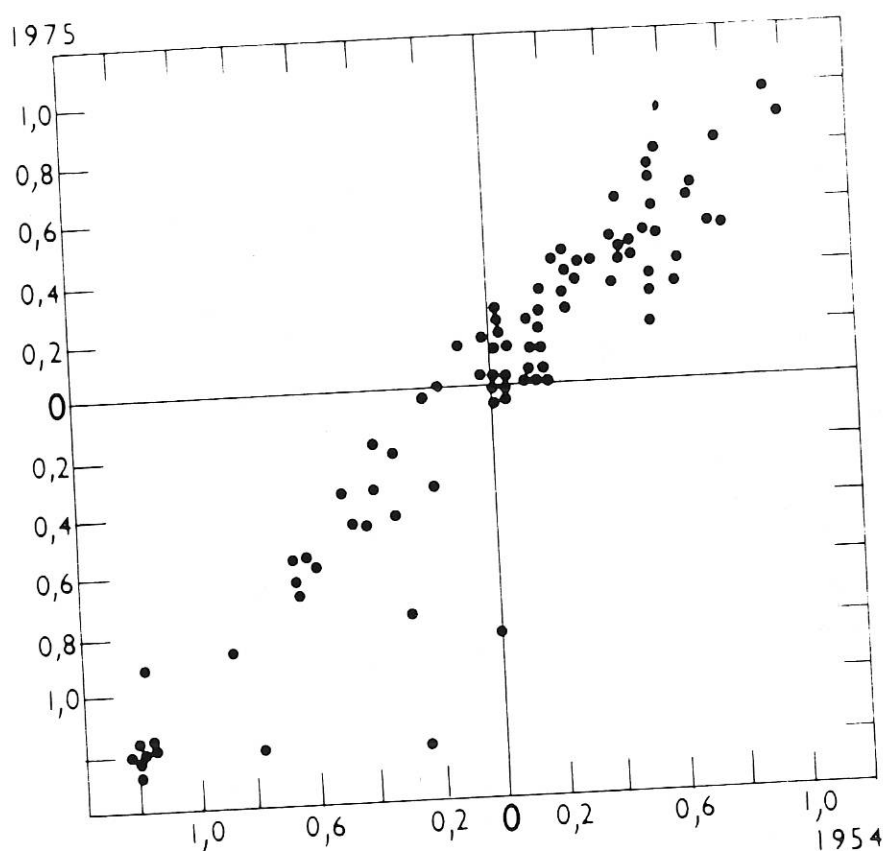
In comparison with common changes, whose generality explains the persistence of main disparities, the differential changes observed during the same period seem very



- | Tertiary specificity, medium
- x Tertiary specificity, low
- Industrial specificity, low (textile)
- ▲ Industrial specificity, low (metallurgy)

Fig. 2. Functional specializations and central places.

slight. But they cannot be reduced to "random," undesigned modifications of socio-economic town situations (Table 1 shows how differential changes were measured).



Position of the agglomerations on the "image de marque" factor at 1954 and 1975

Fig. 3. Stability of socioeconomic structure.

#### *A New Dimension of the French Urban Structure*

The most industrialized towns benefited most from the counterbalancing of the most extreme urban profiles. The most serious deficiencies in their tertiary equipment were partly corrected. Outside the large industrial basins, the counterbalancing of industrial or tertiary specialization overtook many towns. They were often rather small towns, situated at the periphery of the territory, and paid for this equilibration by the reinforced stagnation of declining activities.

At the same time, a few agglomerations increased their specialization. Where increased specialization meant overindustrialization, it also meant a larger increase in the proportion of workers and a relative decrease in standards of living. Where increased specialization meant overtierization, the average level of wealth often increased and the proportion of executive staff in the various occupational statuses grew. These

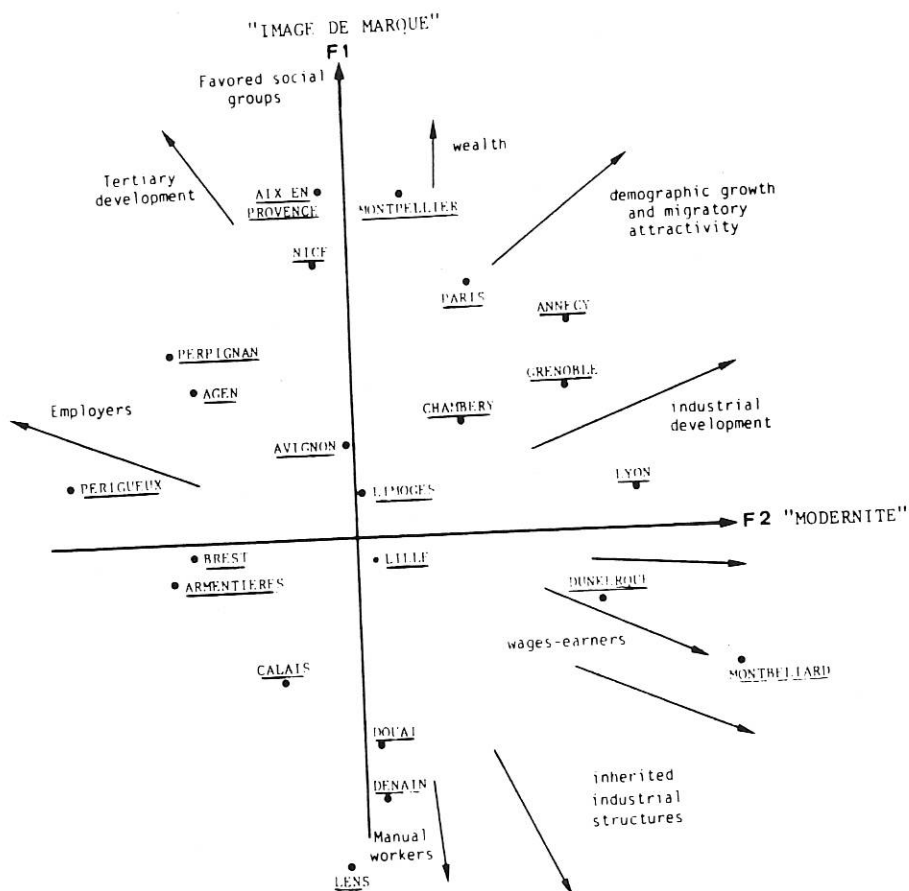


Fig. 4. Socioeconomic situation of 140 largest towns.

changes express differential rates of moving for towns along the first dimension of the socioeconomic structure of the French urban system. They did not alter the associations upon which this dimension of "image de marque" is based.

On the contrary, a few differential changes led to the apparition of a new dimension in the system by establishing between urban characteristics some relationships which did not exist in the initial structure. This unexpected differential change occurred because of different rhythms in the modernization of socioeconomic structure from one town to another. The new dimension of "modernity" has appeared and been reinforced since 1962. The growing inequalities in socioeconomic modernity were depending more and more upon the position of the towns in the urban hierarchy and upon their geographical situation according to the main economic growth poles of that period (see Fig. 5). The large cities on the one hand and the urban networks of the large Paris basin and the central-eastern region (near Lyon-Grenoble) on the other hand were especially favored.

The gradual emergence of this new dimension in the system shows that the func-

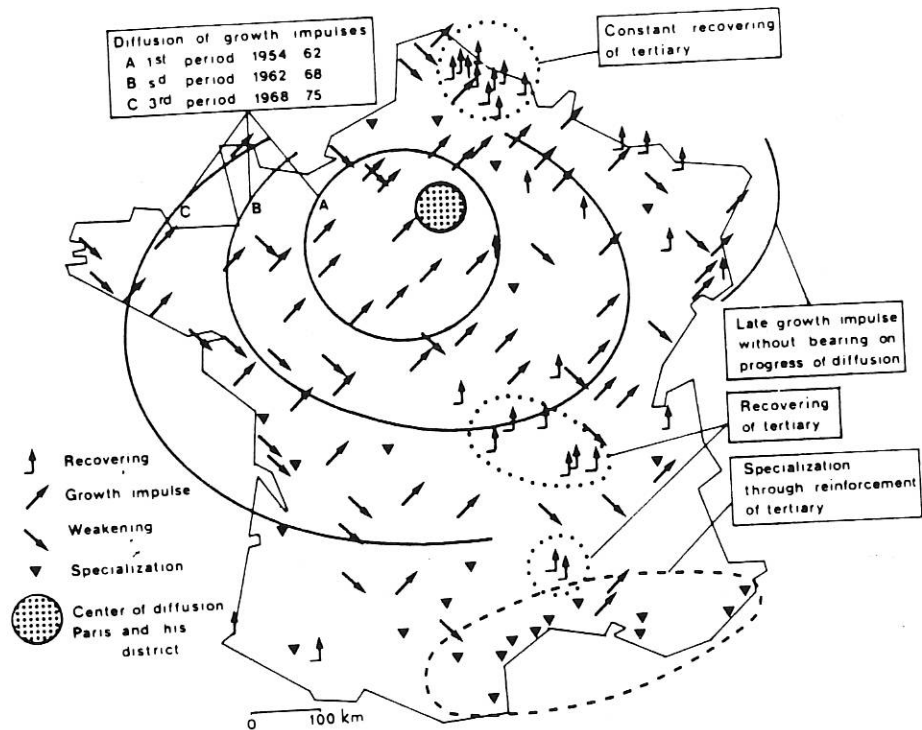


Fig. 5. Differential change in functional structure of the urban system.

tional specializations based upon the nature of economic activity have been partly reduced, whereas new specializations have slowly appeared on the present division of labor between towns. The increasingly systematic geographical separation between different functions such as decision, innovation, research, and execution has found expression in the growing social specialization of the agglomerations. This phenomenon has been strengthened by the tendency of activities that arrived at the same state in their production cycle to exploit in the same way the labor force potential in the urban network. As a result, a new center-periphery opposition was created in the urban system. It will certainly appear as one of the more original features of this important period of French urban history.

#### A "Metropolitan" Model

Large cities have profited most from recent urban evolution. With their complex social structures and diversified functions (according to their high positions in the urban hierarchy), they have assimilated the successive effects of 30 years of economic growth. During this process their structures have become very similar. Is this due to French urban policies, or is it the "normal" evolution of every metropolitan area beyond a certain size threshold?

In this evolution, the economic, social, and demographic primacy of Paris was pri

## STRUCTURE OF THE FRENCH URBAN SYSTEM

served. Undoubtedly, the demographic growth of the Paris agglomeration decreased and was even negative between 1975 and 1982. At least until 1975, however, the net migration of the working population remained largely positive. Although Paris retains its attractiveness to industry, that appeal has become more selective. Highly skilled functions continue to concentrate there while mass production and repetitive tertiary operations have begun to relocate.

The real improvement of territorial imbalances which occurred during that period of urban dynamization is to be discovered less in an erosion of Parisian primacy than in the emergence of significant regional metropolises. As early as 1964 eight cities were chosen to counterbalance the growth of Paris. In fact, those "métropoles d'équilibre" did not grow very rapidly. The most striking feature of their evolution has been the convergence of their socioeconomic structures. The most highly tertiarized cities (Bordeaux, Nancy, Strasbourg, Toulouse) have industrialized and the most industrial (Lille, Lyon) have strongly tertiarized. In the spatial division of labor, their functions in production and transit remained more important than their activities as central places. They have captured a growing share of the most highly skilled jobs, generally in the tertiary sector.

The 12 other capitals of the "région de programme" improved their relative positions in the urban network in terms of "modernity" and attractiveness. As this group of towns is more heterogeneous than the previous one, the similarities in the evolutions of its agglomerations are remarkable. Despite political and administrative hesitations and slowness of its progressive recognition, this level of the French urban hierarchy emerged for its ability to attract a large part of the recent economic growth.

The evolution of the qualification of labor force (wage-earners only) between 1975 and 1980 as observed for urban units having more than 10,000 inhabitants, shows that this process still increased the specificity of the large metropolitan areas. Most of the transformations were common to every town, but the differential changes tended to increase the disparities, which benefited the largest ones. As shown by Fig. 6, the qualification level of the labor force, already high in 1975, again increased during that period for the largest cities (more than 200,000 inhabitants). So the large metropolitan areas and regional capitals gave proof that their ability to resist the economic crisis, was greater than that of smaller towns.

## PROBLEMS AND FUTURE OF THE FRENCH URBAN SYSTEM

### *Urban Decline of New Definition of Urban Areas?*

The first problem, at least the one most recognized by the public, is the decrease in population of the largest cities since 1975. But, this concern is only outwardly contradictory to the observation made above about their profitable qualitative evolution. This can be properly interpreted by looking carefully at the spatial distribution of population growth between 1975 and 1982—the more rapidly growing were rural communes belonging to the Z.P.I.U. (1.9% per year) (Fig. 7). (Their number is about 7,600. By their nonagricultural activities and importance to commuting they are placed in the hinterland of towns.) Those rural communes are now growing faster than suburban ones, where the greater part of urban population growth took place between 1968 and 1975. Diffusion of urban growth reached then much more re-



CITY SIZE \ DIFFERENTIAL EVOLUTION 1975-80	ACCELERATION OF THE TERTIARIZATION AND OF THE QUALIFICATION		TERTIARIZATION SLACKENING WITH STRENGTHENING		
	VERY SKILLED	SKILLED	HIGH SKILLED WHITE COLLARS	SKILLED BLUE COLLARS	UNSKILLED BLUE COLLARS
200-2000000	●	○	○	○	○
100-200000	●	●		●	○
50-100000	●		●	●	
20-50000	●	●	●	●	●
10-20000	○	●	●	●	●

DEVIATIONS FROM FREQUENCIES CALCULATED FOR INDEPENDENCE CASE.

● POSITIVE DEVIATIONS

○ NEGATIVE DEVIATIONS

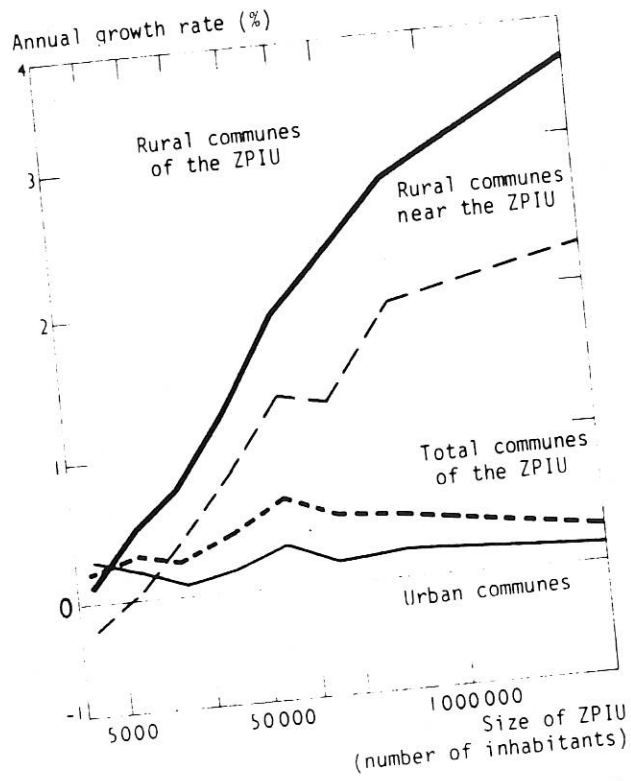
Fig. 6. Differential changes in labor force qualification and town sizes.

moved areas than before: For example, the average distance of communes having high growth rates (more than 2%) to the center of Paris was 16.7 km for 1954-62, 25.1 km for 1968-75 and reached 40.9 km for 1975-82. More generally, half of the 15,500 communes which are situated at the outside periphery of the Z.P.I.U. were also growing. The remaining 8,400 rural communes kept losing population, even though for two-thirds of them this evolution had become less unfavorable than before.

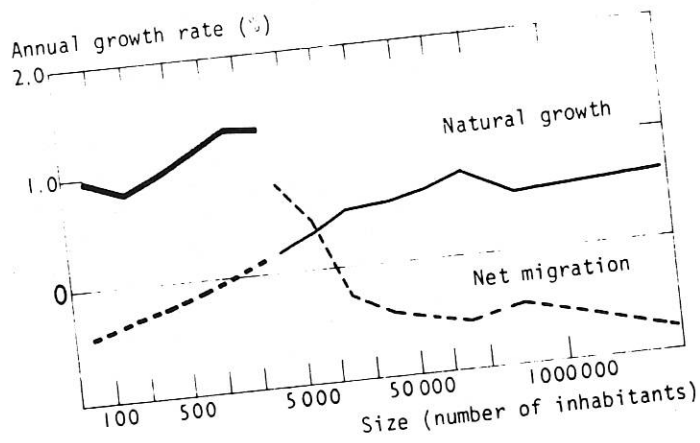
The growth of rural communes belonging to the Z.P.I.U. or contiguous to them was positively correlated to the population size of their urban area. This phenomenon can then be interpreted as a transfer of urbanization from more to less densely populated zones. A confirmation is given by the decline in population in communes forming the agglomeration center. Their growth was already reduced before 1975; it is now almost completely stopped. Above the threshold of 20,000 inhabitants, they lose population, in growing proportion with the size of agglomerations. Between 1968 and 1975, only seven communes, the centers of the largest urban units, experienced a decline in population (Paris, Lyon, Lille, Nantes, Rouen, Saint-Etienne, Nancy); between 1975 and 1982, this decline occurred in every agglomeration with more than 100,000 inhabitants—with some exceptions in communes with particularly large communal territories.

This recent evolution has to be taken into account by local and regional urban poli-

## STRUCTURE OF THE FRENCH URBAN SYSTEM



A. Annual growth rate of communal population and relation to a ZPIU.



B. Natural growth and migratory growth in urban and rural zones.

Fig. 7. Recent evolution of urban and rural population (1975-1982). The urban communes are classified according to the population of the urban unit to which they belong, the rural communes according to their population. Source: Boudou and Faur, 1982.

cies. It is a rather spectacular expression of modifications in the nature of current city-forming interactions. In the future, these interactions will take place in considerably enlarged urban areas. However, nothing can be predicted about their impact upon the socioeconomic structure of the whole urban system. The relative positions of the towns in the urban network are not directly related to the internal organization of their own urban spaces. There is possibly an urban crisis, but no crisis of the urban system.

#### *Increasing Weakness of Mono-industrial Towns*

Despite the amelioration of their main deficiencies in tertiary equipment and in services for households, the diversification of economic activity in the most industrialized cities has not been sufficient. They are basically and severely affected by the economic crisis and its resulting restructurings. They can still be called mining towns (i.e., Béthune, Lens . . .), iron and steel towns (i.e., Denain, Thionville) and perhaps in the near future automobile towns (Montbéliard) or towns of the pneumatics (Montluçon?). Experience has shown that above some thresholds, the concentration of declining activities or of too many unskilled workers in a town or in many towns of the same region leads to unfavorable consequences that require external intervention to correct them. Since alternative solutions have become more difficult to find, recession is felt more severely in old industrial towns than in other places.

#### *The Regional Reform and the Urban System*

The last 30 years were marked by a politic will to see the French urban system as a whole. It was supported by powerful processes of change which were widely external to the system. This did not lead to a greater homogeneity among urban situations but, on the contrary, to an increasing diversification. The new interurban disparities did not obliterate the older ones but became superimposed on them. As a result the variety of urban types increased.

In pursuance of the law about decentralization, regional authorities and local organizations will soon have their power and their responsibilities increased as far as urban planning is concerned. It cannot yet be said how it may affect the future of the French urban system. However, new relationships will appear between general process of change and the local forces of attraction and of assimilation. Urban policies should then tend to harmonize interactions between towns and regional subsystems of towns. Releasing and supporting local initiatives should not make us forget the necessity of a plan for the whole urban system.

#### NOTES

<sup>1</sup>For more details, see Pumain and Saint-Julien, 1978 and 1983; Pumain, 1982; Saint-Julien, 1982.

<sup>2</sup>In this analysis, each town is described by the social (or economic) composition of its labor force at two different dates. The trajectories figure the modification of this composition between these two dates along each factorial axis according to the combination of economic activities or social categories that each factor defines.

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