

RELATIONSHIP BETWEEN SOCIAL-ECONOMIC DEVELOPMENT AND URBAN STRUCTURE FORMATION THEORIES

By

K. FARAGÓ

Department of Town Planning, Polytechnical University Budapest

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It is a difficult problem to point out relationship between social-economic development and city pattern, not only because it is a complex problem, but also because it is hard to interpret and define. A number of questions emerge right at the outset: which aspects of social-economic development should be emphasized, and which should be ignored; what do we mean by city pattern: is it just the basic spatial and functional system that characterizes the city, or are meant by it the parts of the city, its territorial units and structural elements as well; how far statements made are likely to be acceptable and exploitable all over the world; where is the borderline between the manifold technical and non-technical aspects of the subject?

First of all I should like to emphasize that it cannot be the aim of urban studies to give a general analysis of social-economic development, though those engaged in city planning and city building cannot do without a hypothetic prediction of future circumstances. It occurs but seldom that the development of society and technology has a direct impact upon settlements. Even urbanization, a process experienced all over the world, and always accessory to technical development and economic transformation, has some clear and obvious consequences, but in most cases it has indirect effect on the transformation of the settlement, in combination with several other factors. With the help of the mass media the process of gaining new information and knowledge is faster and easier, owing to the speedy transport vehicles, to the fact that more and more people use car, one is getting more and more mobile — these and other new phenomena of life have complex and indirect influence on the city, and these influences hardly ever refer to a single aspect of the life of the city, and even less to definite technical systems, their characteristic feature being dispersity.

Thus, the limits of our studies concerning future are known, and also that the accomplishment of several detail problems has to be left to the future.

Our ideas of a perspective state, consequently our town planning and development principles are influenced by the present state of settlements as well: one cannot operate with optimal, but abstract, new networks, systems,

types of settlements, instead of, primarily, with the gradual development, transformation, modernization of the existing ones.

This is the reason why the present state and development possibilities of Hungarian settlements and settlement network cannot be ignored, neither can the effects of the social system in Hungary, in examining any aspect of planning and reconstruction of settlements. Thus, only some details of the following statements will be worth generalizing, nevertheless in any case they will be concrete, and will give some information about relevant problems that are in the foreground in this country.

Though during the last twenty years urbanization has been especially fast and large-scale in Hungary, unprecedented in this country so far, this process could not keep pace with the structural changes in the occupational distribution of population. Between 1949 and 1966 the percentage of agricultural employees went from 49.8% down to 31.3%, while that of industrial employees grew from 23.6% to 38.6%. Although during the same period the proportion of urban population grew from 30% to 42%, more than 600,000 (12% of the employed) work outside the town or village where they live. In spite of the socialist reorganization of agriculture the „tanya” system could not be cleared (*tanya* is an inhabited spot, farmstead outside the built-in area of villages and towns): almost 1.5 million people live on dispersed spots outside the inhabited, built-in areas: in small individual farmsteads, or in the farming centres of large agricultural units. This situation can be characterized by the following figures: in the country there are nearly 3,300 administratively independent settlements and 15,000 inhabited spots. Among this relatively large number of settlements there are only 45 with more than 20,000 inhabitants, and only 5 cities with more than 100,000 inhabitants. It is also a characteristic feature that half of the urban population of the country lives in Budapest.

The inner, more or less densely built-in areas of our cities are surrounded by rural belts. In the provincial towns only 43% of the population is supplied with running water, and only 30% with sewage. There are more than 3 million flats in the country, but most of them cannot be regarded as up-to-date. In spite of the more spacious and better equipped 60,000 flats built yearly, and the considerable sums spent on renewal, the quality of the building stock is improving but very slowly. A similar situation is that of public utilities: in spite of the large-scale development the amount of supply is far from being sufficient.

Due to the large-scale and concrete tasks in the field of modernization of our settlements and settlement-network, we are compelled to have a down-to-earth view concerning the future of our cities. There is such a large gap between the condition of our cities and both the socially demanded standard and the requirements defined by our spatial planning principles, that even

with much better technical and economic possibilities than the prevailing ones, all what has to and can be done for a long time from now has already been clearly defined. This view — likely to be reasonable and realistic — is responsible for the fact that apart from some unfounded ideas written mostly for the general public, there are not Utopian works about cities, so fashionable today, published in this country.

It is unlikely that keeping an eye on the realities of our conditions would contradict up-to-date principles: on the contrary, to arrive at conclusions which will not counteract future development is only possible by starting from actual requirements and possibilities. „Up-to-dateness“ is always bound to a definite period, it is equally characterized by the actual requirements and possibilities on one hand, and by the ideas concerning future, on the other. According to this consideration, our present spatial planning principles based upon studies and research of the last twenty years can be regarded as up-to-date. Thus, our basic conception of the formation of city pattern, i.e. the division of the area according to basic functions, the concentration of areas and establishments for relating functions, the hierarchy of construction will be by all means valid for a long time. Our planning principles that result from this conception of functional area units of the city, their relative location, the arterial roads, the morphological structure of the city, are not likely to need modification for a long time. If these principles are interpreted and applied properly, any new requirement resulting from social development can be satisfied within reasonable time without getting into contradiction with present principles.

It should be emphasized, however, that this statement is true as regards the city pattern as a whole, a first, overall approach. One must not forget that in the future even significant details of present views will have to be revised. Now I am referring to some of our principles as well as to the inner structure of some parts of the city. It is not difficult at all to foretell this, because the process of this revision has already been started: it has been the aim of our research work for several years to improve or amend if necessary our earlier principles on the basis of new experiences concerning urban development. This process will probably grow faster as more and more new demands will emerge, and as the scope of our experiences will get wider.

It is also likely that the revision will first affect relatively new principles, not sufficiently proved by practice, which are therefore too rigid, and leave the diversity and changing character of demands and possibilities without consideration. Let me illustrate this fact by some examples.

It is one of the bases and great achievements of modern city planning that it separates residential areas from the working places, from industrial areas. Though this separation has only been realized in some new cities, and in some old ones, where large-scale reconstruction took place, so as to follow

the theory more or less, its advantages are apparent from the improvement of the sanitary conditions of the population, and the economic effects of concentrating the industrial plants. At the same time it has or will have drawbacks as well. For instance, the roads between residential area and working places will be heavily loaded during the rush hours; in spite of a reduced working time in the future, relatively more time will be spent on transport. The distance between residence and working place will make it difficult for women with little children to undertake jobs, it will make the actual free time shorter etc. Thus this rigid separation will more and more contradict public requirements, and later technical development as well. Namely, there are ever more possibilities to eliminate disturbances due to certain industries, so the significance of defence by city planning methods, i.e. a drastic separation of residence from working place will have less importance. So, beside functional area units — which form the framework of some most important functions of the city — complex territorial units may develop, which contain both residence and working place of their inhabitants, as well as public institutions. In this way city pattern can be composed of functional area units and complex territorial units. This fact may considerably affect the proportions of the city, the system of green areas, the road pattern and its hierarchy etc.

This development requires first of all to revise our conceptions about residential units. It was a great achievement in the 1920's when the concept of residential units appeared in the literature of urban studies. This theory soon gained a widespread use in practice because it was obvious that the division of residential areas into such units had great advantages for the service of urban population, and in the creation of satisfactory, up-to-date living conditions. Nevertheless it has been a subject of debates both in Hungary and in other countries in the last years whether it is not outdated to plan residential units. Even if the application of the theory can be justified, no doubt it is to be modified in a number of details. So for instance it is more important than ever to take into account the fact that the units are different in character. It is not enough to recognize the hierarchical order of units, even residential units at the same level are not bound to contain the same functions, and it is even less important that these functions should be performed in the same way. Standardized neighbourhood units or residential quarters are not the proper frameworks of the manifold urban way of living, of the diversity of demands. And taking into account that industrial plants can be located in many ways — as mentioned before —, and some residential units may be transformed into complex units, one can be sure that a number of residential units will be of different character from those generally accepted today.

This more and more differentiating organism of residential units is in obvious relationship with the service of population. In the last years, research

in Hungary constantly aimed at selecting between different kinds and types of public institutions and establishments, to set up their network, to determine their dimensions etc. Our comprehensive knowledge in this field permits to meet and even to anticipate the demands of population. Owing to social development, the demands of population for services have an ever growing tendency, so our research in this field is going on, but with certain modifications. In this stage of development it is not enough to widen the scope of services, it is even more important that these demands should be satisfied in a much greater variety of ways than they are now. Therefore, several alternative projects have to be worked out for the different public institutions, parks, and other establishments, for their location, grouping, dimensions. In this way we can offer a variety of choice in the different services. The problem of future demands has rightly come into the foreground lately, but I am convinced it is just as important to consider how to offer alternatives for choice. Future demands are rooted in the present ones, and their coming to light is hindered by the mere fact that they cannot be adjusted to the existing standardized services, so either they cannot be met at all, or they are met in individual, non-organized ways, and remain unnoticed.

The system of supply in cities is widening, and getting more and more differentiated. This process calls forth the decentralization of services. This is not a new phenomenon either: it is characteristic for residential units to have a service system at a definite degree. But if the form of service in one unit will be different from that in the other, the units will not contain the total service system, consequently it will be necessary for them to form a joint service system. This process will have several results, of which two should be mentioned. One is the change that will take place in the city centre. Since the significance of residential units and complex units will increase in the field of supply, the scope of central services will be restricted. This is, however, true only as far as the supply of urban population is concerned. At the same time the connections between the city and its surrounding will get closer, so the regional significance of the city centre will increase, as the centre will lose some of its urban functions, its significance as a regional centre will grow. This fact may exert an important influence on the location, transport relations, structure of the centre, as well as on its connections with the sub-centres. The other important consequence of the decentralization and co-operation of services is that the traffic between the units will be much busier than now. Also, as the employee will have more free time, the traffic towards the different recreation facilities, sportsgrounds and the surrounding of the city is likely to be more and more intense. All these will necessitate certain changes in the road pattern of the city, in the lines of public transport. From the consideration of these facts it is obvious that besides of the quantitative aspects of the urban transportation problem of our age, its aspects affecting urban structure

are equally important. It has to be studied more carefully than ever how the land use, the location of public institutes and establishments, the hierarchy of units can be rendered to the hierarchy of transport-network.

The new, up-to-date system of service affects the housing as well. By building flats of higher quality, people will be given a wider choice as to the equipment, location of the flat etc. A development trend can be observed according to which some of the functions of the flat are taken over by public institutions. Now I am thinking of LE CORBUSIER's *Unité d'Habitation*, and the Soviet experiments with the so-called collective houses. This process will presumably go on, and will partly widen the scope of public institutions and partly create new ones. At the same time it is also to be expected that some functions will get back into the flat or the block. Such functions are the care for children, cooking, washing, household work in general, as well as some free-time occupations. These complex relationships between the services inside and outside the flat could be made clear with a profound analysis of economic, sociological and other factors. This analysis would be of great importance because the changes would affect both the service system of residential units and their correlation, creating much more complex units than ever, in this way they contribute to the transformation of the city centre as well.

Another feature of our future housing activity, the increase of the dwelling area per person, will affect the dimensions of the city area. In Hungary, during the last years the dwelling area per person has considerably increased, though it is still below the average in countries which are more prosperous than ours, and escaped war destructions. This process is certainly hoped to go on faster than now, and so it has to be taken into account that beyond certain limits it will affect the city pattern. With the growth of flats, the density in the flat will decrease, which in turn results in the growth of the city area. It is a world-wide phenomenon that the area of the city grows much faster than its population. This problem was raised by the FIHUAL (international city planning organization) congress in 1965. (The growth of the city area is called forth by other factors of development mentioned before as well.) This territorial growth will also influence planning. In Hungary it will not appear in the near future, because most of our towns and cities are built in rather loosely, so reserve areas exist, nevertheless the analysis of this tendency will influence our principles on land use.

Territorial growth is in close relationship with economical planning. It always depends on the country and on the period of time what is economical and what is not. It is to be expected that social-economic development will widen the range of possibilities of city planning. Economical land use, however, is not going to lose its significance in even the most developed countries, in the distant future, in better economic circumstances either. If the system of public service will extend all over the city at a higher level than anywhere

now, the growth of urban area will have much more serious economic consequences. Therefore it is very significant from economic point of view that each territory no matter whether it is built in or open, should have definite function in the given period. This is why planning methods coming into prominence lately, keeping so called „reserve“ areas with the purpose to locate services for future demands not identified yet, are to be rejected.

The fact that the function of urban establishments and their correlation will change in the future, will affect their architectural composition as well. The greater variety of buildings and other establishments, the increasing number and significance of public centres forming the foci of urban structure, the complex interrelations between residential and public buildings, the increase of building sizes will be new features of the city of the future, not yet appreciable, but definitely corresponding to the high-level aesthetic pretensions of the future city-dweller. Even if the compositional rules, developed in the course of thousands of years and forming the bases of every aesthetic conception go on exerting their influence in the future, the prominence of these new aesthetic features cannot be denied. As the elements of the city will increase in number, and their interrelations will grow in complexity, the architectural composition will manifest itself in more and more ways.

I think it clear that although our planning principles may precede social development to some extent, in most cases we only have the chance to improve some details of them once new requirements have shown up. If theory and practice react quickly enough to these changed requirements, our new cities, new districts may be regarded as up-to-date at the time when they are built. It is a question, however, how long this up-to-dateness can be maintained. Is there a possibility for our new cities and districts built according to our present or later planning principles to keep pace with the changes of requirements called forth by social-economic development?

Before answering this question I should like to shortly analyse the expectable consequences of these changes. According to our experiences these consequences can be of three types:

1. It is possible that most of the *changes will not affect the whole town or district*, only some of its limited parts. If a problem can be solved by transforming or modernizing some establishments, by transforming, redimensioning a few elements within a limited area, the improvement of their correlation within this area, this process will not have substantial effects on the city pattern. So the effects of this process need not to be taken into account in setting up our planning principles. Such changes must usually be carried out shortly after the construction is completed, due to the inefficient appraisal of demands or to shortcomings of realization.

2. In some cases it is possible that *within a given district the effects of changing circumstances and requirements offset each other*. This happens for

instance when housing conditions improve, the dwelling area per person increases, consequently the number of inhabitants in the bulk of flats of a certain area decreases. This results in a better rate for one person in public institutions, utilities, green area, these being used by less people. The same refers to the capacity of residential roads, parking places etc. of the district. Similar effects may result from many other consequences of social-economic development, e.g. as the number of cars is growing, the public establishments, shops first of all, around the flats will be used less frequently than central establishments of that type. So, in an indirect way the capacity per person of the small local shops will increase. While some services will be performed by public institutions, others develop in the opposite way, and will be performed in the flat again. Therefore it is to be expected that the demands on certain public institutions will cease or decrease considerably, and the released capacities can be taken over by other, new functions. Such changes may show up permanently. They will not call for structural changes if an eye is kept on the life of the city or district, and succeed in co-ordinating the outcomes of opposite tendencies in due time.

3. There are *changed requirements, however, which make structural changes in the city or district necessary*. Their causes may be rooted outside or inside the given area. The former may be first of all the changed function of the district in the city pattern, its changed relationship with the surrounding and the other parts of the city. This occurs when the renewal of the whole city or some districts alters the correlation between the city and the given district which prevailed during the planning process. The „inner“ cause of such a structural transformation is the necessity to redimension some establishments or their sites, or the creation of new establishments in order to meet public demands. If this cannot be restricted to a limited area, and the changes affect most of the constituting elements as well as their interrelations, these changed requirements cannot be met without structural changes. If the district was planned adequately, such transformations become necessary only long after realization, in connection with the renewal of the whole city or in the case when the changes of requirements have taken new directions, not predictable at the time of planning.

It is obvious that while planning a new district the consequences of the first two cases need not to be considered very thoroughly, these of the third case, however, must be taken into account in order to avoid the necessity of frequent structural changes, or at most, to carry out such transformations at relatively low expenses. Therefore it is an important research problem to set up a flexible and dynamic system of planning principles.

Some possibilities exist already on the basis of actually identifiable tendencies and their consequences. First of all, the risk of necessity of simultaneous transformations in every district of the city called forth by changed

requirements, can be avoided. One means is to consider the fact that changed demands do not mean only some functions to cease, and new ones to come into being, but also the need to prepare for meeting existing demands in a variety of ways. This is why it is so important to analyze thoroughly the ways of satisfying all the requirements of urban population, to select those which can be realized in the present social-economic circumstances, and to distribute these variations in the city according to a definite system. In this way two goals can be reached: a variety of choice, and avoiding that a future change of requirements makes some services obsolete, and calls for simultaneous modernization all over the city.

Finally I should like to insist that relationships between social-economic development and the main characteristics of city pattern involve also other problems than those mentioned above. Obviously, they are well known to our experts, and great efforts have already been made to solve them. They can be solved, since we have much better possibilities than city planners of any other period to study the development laws of society, to analyze their effects on city planning and to apply the conclusions drawn of them. Owing to this and to our scholarly achievements we can approach the complex question of relationships between social development and city planning, and can try to give a successful solution to all the problems I have raised.

Summary

This paper is concerned above all with the theoretical relations of the subject.

Although our present town planning principles can be regarded as up-to-date, development will require the revision of our today's position in significant details. For instance the rigid separation of dwellings from working places will be unnecessary, so complex units can be created. The system of the supply of population must be extended, differentiated and decentralized. The regional function of the town centre will grow as against its urban function, this fact will have consequences in the field of transport as well. The growth of dwelling surface results in the expansion of urban area, raising problems in land use economy.

It is necessary to be prepared for the formation of unidentifiable future demands in order to avoid the risk of structural changes. The development of social requirements and that of urban planning principles are in interaction, therefore a flexible and dynamic system of planning principles must be formed in order to satisfy the present requirements, and be able to meet the future ones as well.

Ass. Prof. Kálmán FARAGÓ, Műegyetem-rakpart 3, Budapest XI, Hungary