SPATIAL DIFFERENTIATION OF POPULATION WITHIN A SOVIET CITY

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The territory of the Soviet city is differentiated in terms of its social environment, development of service networks, density and quality of housing, concentration of places of employment and so on. Studies of Moscow, Tallinn, Kazan', and Tbilisi have shown that it is typical of Soviet cities to have complex spatial mosaics of physical environments and social and demographic characteristics.[1]

Despite geographic vagaries in Soviet cities, the literature on population spatial differentiation is rather scarce. For many years a normative approach to the study of urban geography in the Soviet Union prevailed, when technocrats were concerned with devising schemes to create ideal city environments but without taking into account their actual spatial organization. Such schemes included concerns for the establishment of hierarchies of service networks or intracity planning zones that would balance population with places of employment. During the last two decades it has become clear that these and similar schemes will never work.

Although no comprehensive state planning policy exists concerning social differentiation of population within the city, intraurban processes of self-organization have led to such differentiation. In some cities, for instance, housing has become available to certain nationalities. One example is the rise of Russian neighborhoods in Tallinn, the capital of Estonia, which developed due to two major waves of immigration: the first came in the 1940s when migrants occupied vacant apartments left by Estonians who were forced to relocate; the second is still occurring, as Russian workers in industrial plants are moving into apartments built especially for them on the outskirts of the city. In contrast, large cities in

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[1]N.B. Barbash, *The Methods of Studying the Territorial Differentiation of the Urban Environment* (Moscow [in Russian], 1986); V.O. Rukavishnikov, *Population of a City: Social Structure and Allocation, Environmental Evaluation* (Moscow [in Russian], 1980); L.N. Fenin, *Social Mobility and Social Geography of the Large City*, Vol. 37 (U.S.S.R.: Ufa Aviation Institute [in Russian], 1971).

the Russian Federal Republic, such as Moscow and Leningrad do not have distinct ethnic neighborhoods because areas with large numbers of vacant apartments have never been available to immigrants.

As in other large socialist cities, the vast majority of Moscow's population resides in separate or shared apartments of different sizes and quality; yet there is no differentiation in rent to result in social and demographic differences. This paper uses Moscow as a case study to explain how other factors have contributed to variations in the residential landscape of the large Soviet city. Part of the rationale for this study is to explain how this landscape contributes to a dysfunction in city living.

DATA BASE AND METHODOLOGY

Data on 5,000 mothers of newborn infants were acquired from medical clinics in twenty-four districts for the analysis of the spatial differentiation of population characteristics in Moscow. The registration card of each child contains information about the occupational status of the mother, her education, and the age and number of children in her family. Usually, both the husband and wife belong to the same social group, so data from this sample population provides a good indication of the spatial variation of social status within the general population of Moscow. The representative character of this sample is also confirmed by the author's field work.

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The map (Figure 1) shows the occupational status of the mothers. The spatial concentration of certain occupations is clearly evident in the data. For example, there are varying proportions of workers in material production (factory workers), compared with specialists and students. Most notable is the contrast between the two southeastern areas, which are areas in the heavily industrial district next to the Moscow river, and the area in the southwest, which has fewer industrial workers but more specialists and students. This latter segment of the city is clearly one of the areas with a relatively high socio-economic status, and the quality of its environment contrasts sharply with that of the sector to the east, with its industrial landscape and high level of pollution. These contrasts in social structure and

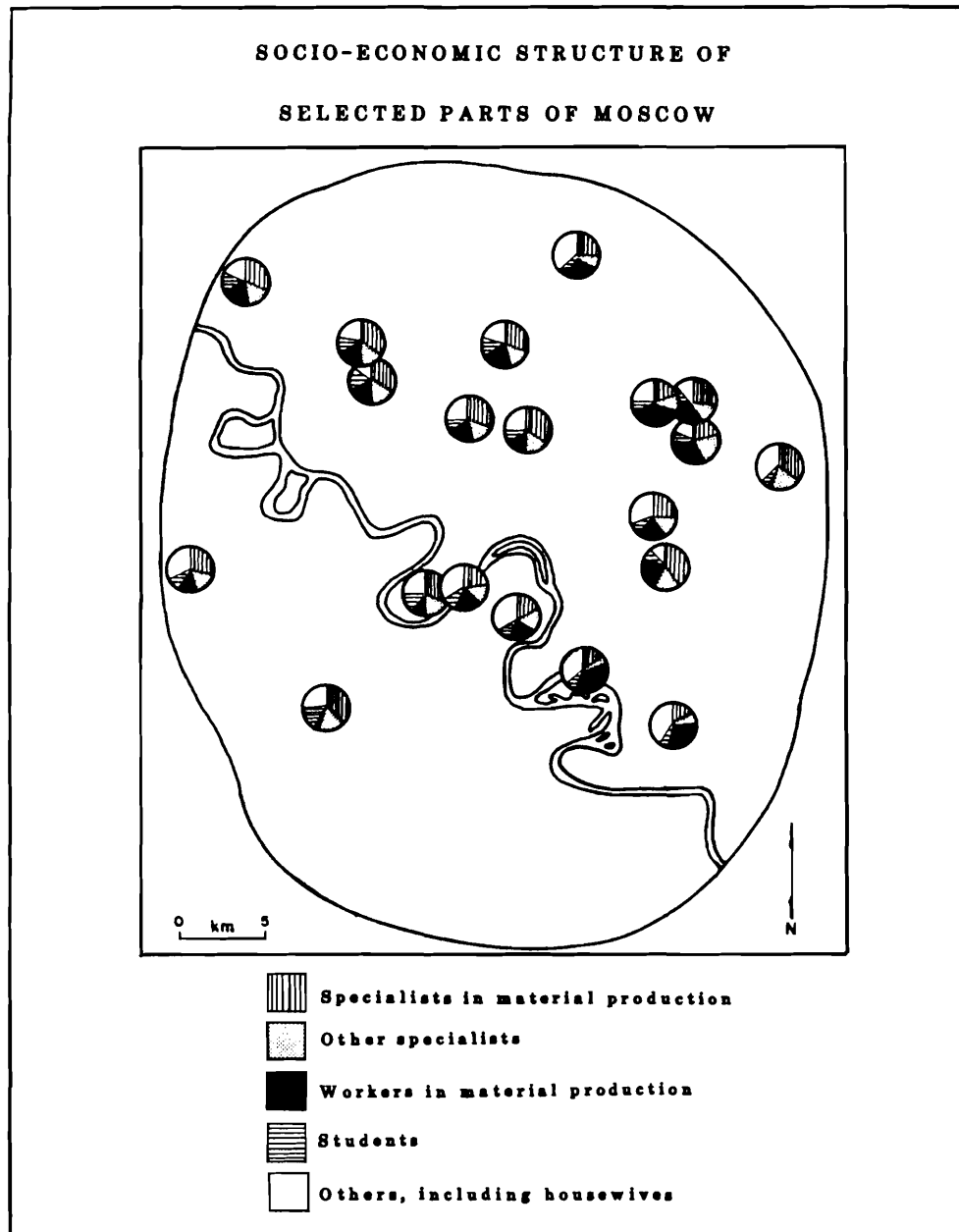environment are reflected in other aspects of living standards, which are supported by this author's earlier research.[2]

Figure 1

[2]N.B. Barbash, "The Geographical Approach to Urban Environment-Health Relationships," *Ecology of Diseases* 2 (1985): 117-23.

The analysis of Moscow's social and professional characteristics reveals that four types of residential areas are scattered throughout the city. First, industrial specialists, such as engineers, are highly concentrated in the eastern part of Moscow, where the housing for workers in large industrial plants was built in the 1930s. In addition, industrial worker housing has developed over the years as workers have sought to locate in apartments near their places of employment. This pattern of housing is a good example of how functional characteristics of a territory influence the social and professional structure of its residents. The second type of area is where the concentration of specialists is low compared to the share of factory workers. This type of area is most concentrated in the southeastern part of Moscow.

The third type of socio-demographic area is characterized by a higher concentration of specialists in non-material production (physicians, teachers, researchers, artists, etc.) and a lower concentration of factory workers. It is characteristic of southwest Moscow where research institutes, colleges, and cooperative apartment houses are concentrated. A unique aspect of this type of area is the high number of professional women, which accounts for late marriages and high levels of single mothers. The fourth type of area is characterized by a lack of any dominant social and professional group. Due to its mixed population, the demography of this type is similar demographically to the city as a whole. It is found on the outskirts of the city where housing construction has been taking place recently, where people of different backgrounds are moving into new state apartments after years of waiting.

DISCUSSION

The first three types of socio-demographic areas represent manifestations of only subtle differences between residents within Moscow, but the fourth type (the one with a mixture of specialists, workers and students) is more typical of the city's neighborhoods. Due to a large "mixed" population throughout the city, there are no general spatial regularities in the distribution of socio-demographic residential groupings. This is one of the major differences between Soviet and Western cities; in a Soviet city, such as Moscow, the socio-economic status of the family has little influence on the location of the family's apartment in a particular part of the city. Instead of one's ability to pay for an apartment or house, the mosaic character of intraurban residential groups is determined by broader, interrelated factors, which

are as follows: (1) Residential relocation. A population with certain demographic and social characteristics moves to a newly developed part of the city;

(2) Evolution of the family structure. As the size and age structure of the family increases, there is pressure for young adults to relocate to areas where housing is available.

(3) Apartment exchange. Because of a scarcity of apartments, Moscow residents are resorting to the exchange of their apartments so they can relocate near their jobs or so they can have larger living quarters. The lack of vacant apartments or the difficulty of finding apartments of suitable size run counter to residential mobility. The factor of apartment exchange tends to dominate the other two factors and, thereby, accounts for a prevailing mixed population of young adults and their parents.

These factors exist in the absence of any state policy to adapt the location of apartment construction to the needs of Moscow's residents. Each factor is discussed below; it should be evident that the origin of each is a response to inadequate city planning.

Residential Relocation

Because of residential relocation, there is a general relationship between some city areas' social and professional structure and the age of their housing. This differentiation is most evident in small Soviet cities, because the state has constructed apartment buildings as it has built industrial plants. A similar process has been occurring on the peripheries of large cities, such as Moscow, where the new dwellings may be either apartments or private houses (usually of poor quality and with few amenities).

In some areas of Moscow, there is a positive correlation between the age of residents and age of apartments. The older population is more characteristic of the center of the city, where residents have been living for decades. As we shall see, the concentration of retired people in Moscow's downtown area reaches 25% of the total population. In contrast, there are areas of the city where young urban dwellers tend to be concentrated; these areas are on the periphery of Moscow, where new housing is available. Nevertheless, in many parts of the city the residents' age structure remains mixed because of the lack of a free housing market and a shortage of vacant apartments. Thus, these families live in the same

apartments for many years despite the fact that housing and service needs change during different stages of family development.

Evolution of the Family Structure

The family structure of Moscow's neighborhoods depend on the degree of availability of apartments and the general demographic situation. The average waiting period for an apartment varies between five to ten years in most Soviet cities. This situation is due in part to the fact that the composition of the existing apartments and those under construction do not correspond to the family structure. In Moscow, for example, one-member families constitute 19% of all families, whereas one-room apartments makeup only 3.5% of the total. Large families are in the worst situation because young adults and parents are often forced to live together in one-room and two-room apartments.

The problem of apartment scarcity is compounded because the elderly population, composed of parents whose children have grown-up and moved out, occupies apartments with rooms that it does not need. In Leningrad, for example, the average space in apartments occupied by elderly people is 13 square meters per person (and the prevailing majority has 15.5 square meters per person), while young families occupy apartments with only 11 square meters per person. Based on this author's observations, Moscow's figures are very similar to Leningrad's.

Apartment Exchanges

It is apparent from the foregoing that a scarcity of apartments in Moscow tends to counteract internal socio-demographic differentiation. In Moscow, as in all large Soviet cities, tens of thousands of families spend a lot of time, energy, and money to arrange apartment exchanges on their own so they can relocate, but there is as yet no efficient mechanism by which apartments can be redistributed (exchanged) among the families according to their needs.

There should be a state policy which promotes apartment exchanges, given the shortage of apartments. An important argument for such a policy is that it could help overcome the gross inefficiency in the allocation of apartments for working families in the center of the city. The older population is concentrated here, but they would prefer to live closer to parks and at a distance from

In addition, a significant number of two- or three-room apartments are occupied by elderly widows who do not wish to pay rent or pay for apartment maintenance.

In contrast, young people, who work in or near downtown Moscow, utilize this area's facilities and businesses much more; yet, they are bound to live on the outskirts of the city and spend hours commuting in overcrowded buses and subways. In many cases they have to minimize their usage of the city's entertainment facilities and they have less time to spend at home with their children.

CONCLUSION

The efficient functioning of large Soviet cities is retarded by an inefficient allocation of apartments. Several compensating factors are operating within the city to overcome this obstacle, but no state policy has been formulated to encourage them. This situation is symptomatic of the larger problem of inadequate and inappropriate planning in Soviet cities. Planners have ignored the dynamics of spatial differentiation within cities as a basis for their policies; instead, they have planned the allocation of different elements of the urban infrastructure based on static per capita figures. There has been, however, recent interest in the study of territorial differentiation of cities and, hopefully, the new circumstances of *perestroika* will allow for more open discussion of urban planning policy.

Perestroika brings the possibility of formulating policies that could allow communities to plan their own environments. Should this opportunity occur, it may be possible for neighborhoods to develop on the basis of real social and demographic structures and the needs of the people. The urban landscape that could result would exhibit greater differentiation than what has been described.