City building in the USSR

Ernst May, 1931


City Planning in Evolution

If there is any one area of endeavor in the USSR where the Revolution is still in full motion, then city building and dwelling construction must be considered first. This is not surprising, for the replacement of a thousand-year-old social system by a new one is a process that will take more than just a dozen years to complete, or even to provide a clear and unequivocal direction. Moreover, since the thorough reorganization of the entire social life of the USSR, which covers on sixth of the land area of our globe, will vitally affect city development and housing everywhere, it follows that within the context of this general process of change it is at the present moment impossible to offer a panacea that would suddenly cure all the many ills accumulated over centuries and bring about immediate mature results.

Nevertheless, a number of theories have been advanced and are in hard competition with each other. Some have been published abroad, and this in turn may have led to the impression that it is only these that represent the mainstream of Russian city planning. Nothing could be more misleading! So far there has been no firm commitment to one or the other system of city planning, and by all indications no such commitment should be forthcoming in the near future. This does not mean that the field is dominated by a lack of planning or by arbitrariness. The basic precepts of modern city planning, which in the past years have found wide acceptance in Europe, and which are now being implemented, have become the A to Z of planning in the USSR as well. Clear separation of industry and residence, rational traffic design, the systematic organization of green areas, etc., are considered as valid a basis for
healthy planning there as here; similarly, open-block planning is giving way to single-row building.

The Central Problem of the Socialist City
However, even though the general principles for the planning of Socialist cities have been established, the real problem is only beginning. In other words, a city structure will have to be developed that in terms of its entire genesis as well as in terms of its internal articulation and structuring will be fundamentally different from the capitalist cities [189] in the rest of the world. While our own cities in most cases owe their origin to commerce and the market place, with private ownership of land largely determining their form, the generating force behind the development of new cities in the Soviet Union is always and exclusively industrial economic production, regardless of whether in the form of industrial combines or agricultural collectives. In contrast to prevailing practice in Europe, and with particular reference to trends in the USA, building densities in Soviet cities are not influenced by artificially inflated land values, as often happens in our case, but solely by the laws of social hygiene and economy. In connection with this it should be pointed out most emphatically that the word ‘economy’ has taken on an entirely new meaning east of the Polish border. Investments, which in a local sense may appear to be unprofitable, become convincingly [190] viable when seen from the vantage point of over all national planning by the state.

At this point I should like to point out most emphatically that among the innumerable misjudgments made abroad, none is more incorrect than that which assumes that work in the field of city planning and housing in the USSR is done without rhyme or reason, and that the ground has been cut out from under their feet. The truth is that the economic and cultural reconstruction of all life in the USSR has no parallel in the history of mankind. It is equally true that this reconstruction is being accomplished by a sober evaluation of all the realities, and it should be obvious to any observer that in each successive stage, matters recognized as desirable and ideal are being consciously subordinated to matters that are feasible and possible within the limitations of the present. In the course of this discussion I shall return to this point on appropriate occasions.

The Overall Form of the Socialist City
As far as the general size of the city is concerned, the decision has been made to avoid in the future urban centers with populations larger than 150,000-
Reference is made to Lenin, who said: “We must aim at the fusion of industry and agriculture, based on the rigorous application of science, combined with the utilization of collective labor, and by means of a more diffused settlement pattern for the people. We must end the loneliness, demoralization, and remoteness of the village, as well as the unnatural concentration of vast masses of people in the cities.”

Based on the above, the Five-Year Plan proposes decentralization of industrial production and thus automatically prevents the formation of excessive human concentrations. As mentioned earlier, opinions vary widely concerning the methods by which these new settlements should be implemented.

**Street-Aligned Single-Story Buildings**

A proposal has been advanced to construct single-story buildings on pylons à la Corbusier, placing them at certain intervals along both sides of roads leading to kolkhozy. The Soviets do not take this idea too seriously and tend to toy with it in the theoretical sense only. It has never been tried in practice, and indications are that the concept will never actually be realized; generally it must be considered exceedingly uneconomical, particularly in terms of over-all state economic planning.

[191]

**Scattered Settlements: The Land as the Good Life**

Another proposal [the Okhitovich/Ginzburg model of “disurbanism”] suggests dissolving the city altogether. The idea is based on a proposal made by Bruno Taut some years ago, under the slogan: “The Land as the Good Life.”

To all intents and purposes, and as far as industrialization is concerned, this proposal will not be realized either, especially since it presupposes long traveling distances for the workers to their place of work, and also because it ignores the fact that individual land cultivation does not exist in the Soviet Union any longer, or more precisely, will no longer exist there in a few years. Another facet that is being ignored is the fact that the endeavors of the new Socialist city are inseparably bound up with the encouragement of communal life in the Socialist sense and, furthermore, that the proposed extensive scattering of people over a large land area makes such a scheme infinitely difficult to realize. So far only two city-planning systems incorporating general principles similar to those described above have been realized: the closed, medium-density city, and the satellite city.
The Linear City

Insofar as the former is concerned — i.e., the linear city — and based on considerations of functionalism in planning, no other place on earth provides a better opportunity for its realization than the USSR, where industrial combines are sprouting in the desolate steppe like spring mushrooms, evolving their own particular form apparently well suited to embrace a wide range of functional requirements, such as the organization of industry according to assembly-line methods, and the settlement of large masses of people at a short distance from work.

Material concerning this and other forms of the Socialist city may be found in a book by [Nikolai] Miliutin, entitled *The Problem of Building Socialist Cities*, to be published soon in German translation.

The linear city is organized in such a way that industry — evolving on the basis of internal organization — is arranged in a linear manner with a parallel residential development, both separated by a green belt a few hundred meters wide. The railroads are located away from the green belt on the far side of industry; this in turn compels the workers to cross the highway incorporated into the green belt while hurrying to cross the railroad tracks. As far as the question of its general form is concerned, and in cases where satellite cities (to be described later) may become impossible as a solution, the idea of linear cities is both compelling [192] and healthy, and there is no doubt in the author’s mind that it will conquer the future. Quite obviously, the linear city is to a large extent influenced by local geographical conditions. For instance, Miliutin’s proposal would not work for the city of Magnitogorsk, simply because the terrain is restricted by the 14 km-long dam on the one side and the iron-ore mountain on the other, thus precluding any kind of parallel development. Ever since autumn of last year, an intensive struggle has been going on over the issue whether the residential part of the city should be located on the other side of the Ural Lake, to be connected by two bridges across the lake to the industrial development or — as my colleagues and myself have suggested — whether the city should be moved onto the high, flat plateau near the industrial sector. Two weeks ago my standpoint was definitely confirmed by a decision of the Council of People’s Commissars.

Miliutin’s planning proposal for the city of Stalingrad also required considerable adjustment. Simonov’s project, which is quite uneconomical, proposes the segmentation of the residential districts in the city into five individual communities. This would tend to move residential development too far away from industry, in turn necessitating long transportation routes through
completely undeveloped territory, apart from the difficulty of having to overcome large differences in elevation between the first and the second terraces that run parallel to the Volga. Miliutin's proposal is based on a layout that separates the residential row of districts along the Volga by a park, placing industry and the railroads on the other side of the green belt. It ignores the important function of the Volga as a transportation element, for the river provides and cheap and natural means of delivery and dispatch of raw materials and finished products to and from the industrial plants that make up the 35-km long linear city. Even before the war, a number of large industrial concerns — which in the meantime have been extensively enlarged and added to — were located along the shores of the Volga for the sole purpose of facilitating a natural turnover between the railroad lines running parallel to the river and river traffic as such.

As a result of the foregoing I based my project on the idea of the linear city, leading to the establishment of the following sequence: waterway, shore road, industry, green belt, residential belt, and the slopes of the second Volga plateau.

[193]

The Satellite City

As soon as the spaces separating the individual industrial sectors and their corresponding residential districts become very broad, the linear city actually changes into the last form I wish to discuss, the *satellite city*. Frequently the development of industrial groups, which have no relationship to each other and whose concentration tends to produce excessive corresponding concentrations of population, leads to satellite-like configurations around a common center serving the satisfaction of cultural and administrative needs. In a situation such as this, the individual industrial and residential groups may then be developed as relatively independent entities. I proposed such a solution for the city of Moscow, which, in spite of disastrous traffic conditions, still tends to expand in a homogeneous fashion. A similar solution has been suggested for the city of Novosibirsk on the basis of its traffic and local geographic conditions. A number of other cities have worked out similar expansion programs based on the idea of satellite cities, which have the great advantage over linear cities of allowing for possible expansion whenever there is a sudden need for unexpected growth. The linear city as such represents a closed system, in most case quite incapable of incorporating any kind of expansion element into its structure organically or, at best, rendering such an expansion extremely difficult.

[194]
The Structure of the Socialist City

I shall now attempt to articulate the inner structure of the Socialist city. It is a declared aim of the Soviet political system to put the energies of all citizens capable of work in the service of the state — men and women alike. Communism considers it a waste of valuable time and out of tune with modern life to see the function of woman in terms of lifelong cooking and dusting, when she should be contributing both physically and intellectually to the common good, using her free time to cultivate both body and mind. Actually, such a view merely expresses the thoughts of hundreds of thousands, nay millions, of progressive individuals in all parts of the world. As far as the full mobilization of all the total working force is concerned, this is not really a pressing problem in capitalist countries, particularly in the face of their present catastrophic unemployment, which has forced this issue very much into the background. Conditions in the USSR are quite different. When the Russian delegate in Geneva was recently offered a post on a commission that was to concern itself with the problem of unemployment, he coupled his acceptance with the remark that the Union which he represented was not faced with this problem. Among the many measures designed to alleviate the problem of labor shortage, the most important is the utilization of the woman labor force. Specifically, what does this mean? It means that all those functions that until now have been carried out by women in the household — or at least the largest part of these functions — will have to be taken over by public agencies: among these are first and foremost the functions of food supply and child rearing. As far as the problem of public food preparation is concerned, no major difficulties seem to block the way. The large public kitchens in Moscow, Leningrad, and numerous other centers of industrial and agricultural developments have proven quite successful, even though there are definite tendencies toward overcrowding in some of these establishments. Smaller dining facilities, which tend to facilitate a certain amount of personal contact between consumer and producer, are preferred. The planning of new cities in the USSR calls for the construction of so-called food combines, which, when fully equipped, will contain slaughterhouses, bread factories, storehouses, and superkitchens for the production of semi-finished food products. In turn these will be delivered to the various consumer outlets in the residential districts. Much more difficult than the problem of food distribution is that of child rearing. The question is being dealt with in a systematic way. [195] People brought up in the capitalistic part of the world have the following question on the tip of their
tongue: ‘What happens to *their* family life?’ I answer this question by asking: ‘What has happened to *our* family life?’

Regrets or no regrets, the fact remains that the traditional image of the family is in the process of extinction. Our youth find no pleasure in wasting their time in instructive conversations with aunties and uncles, particularly when their time can be much better spent in the systematic cultivation of their minds and bodies or in the company of members of their own age group. Many people will admit that much, but they will hesitate to admit that their wives are in fact being communized, even in cases where this has become an actual fact without their recognizing it as such.

[196] I do not wish to dwell on this subject any longer, but just the same I would like to point out that my personal impression is that hypocrisy in the USSR in all matters of sex is being condemned, and that in terms of purity and natural morality its standards are on an exceptionally high level, unknown to us. The relationship between man and woman in the context of collective life has been left untouched and is being regarded as a strictly private affair between individuals. This leaves us to investigate the relationship between parents and children. In this area the last word has not yet been spoken. The extreme radicals demand a complete separation of children from their parents at the earliest age [Sabsovich]. Fed in child-care centers, instructed in play in kindergartens, and brought up in boarding schools and dormitories, they are to develop separate from adults. In reality there is indeed a compelling need to relieve the working mother from the worries of child rearing. However, attempts are being made to achieve this in a different manner, whereby children are put into nurseries during the work day and are brought up normally by their parents during the rest of the time; this is indeed very similar to our system. For working mothers with babies requiring nursing, crèches and nurseries fulfill the same function. These will have to be established in the large factories as well, so as to allow their mothers to participate fully in the activities of the Komsomol.

**Three Housing Categories**

Presently three housing types are being developed along parallel lines, depending on whether one takes a radical or moderate view of the problem. It is as yet impossible to say that a clear decision has been made for any of the three types, even though it is becoming increasingly evident that the general thrust will be in the direction of an intensive promotion of a collective style of
life, especially for the coming generation, which finds the purest embodiment of this aspiration in the institution of the Komsomol.

The 100-Percent Private Dwelling
The term “moderates” includes those people who even now still “own” their individual homes in the truest sense of the word. Their right to private ownership is based on a law of 1918, which made an exception to the wholesale land expropriation by the state for small one-family houses with a value of less than 10,000 rubles; these were allowed to remain the private property of their owners. Such families live as [197] do, with one possible difference that is not unimportant, namely, the combination of these housing districts with “people’s houses,” or clubs as they are called in the USSR, which provide the focal point for all community life in these settlement groups. The children are brought up at home as before, except in cases where there are kindergartens close by to accommodate them.

The Collective House
The next group is the class of so-called collective houses, or obieshidie. These are used by people who have given up the use of private kitchens, and who now take their meals in group kitchens on the individual floors of the building or in public dining facilities serving the whole district. Babies up to three years of age are taken care of in district nurseries, and 3- to 7-year-olds accommodated by district kindergartens, usually during the parents’ work hours. School education for the children is similar to our mode of public education.

The Communal House
The most radical form of dwelling is the communal-house, i.e., a structure accommodating an optimum of approximately 400 people or, if two elements are combined, 800 people, and forming a complete dwelling community. Each individual has a living area of 6 to 9 square meters for his own personal use. In other words, a childless married couple would occupy a space of 12 square meters. This space is used for sleeping, reading, writing, and other strictly private functions. In some of the more ideal projects one shower per two rooms will be provided as an added feature. All other aspects of life are collective, and all meals are taken in common dining halls. At most, a small heating unit is provided on each floor for the preparation or warming up of snacks, etc. Work and play take place in common club rooms. Babies are nursed in a separate nursery, connected to the main building by a closed corridor, and older children
are accommodated day and night in kindergartens built for this purpose. Children of school age sleep in school dormitories.

The Financing of Public Education
The foregoing brings up the extremely complicated problem of financing and leads to the question of whether such a system of housing and education will not eventually turn out to be more expensive than private education. In reply it must be noted that final figures have not been made available to date and probably will not be available for some time to come. However, some of the available cost estimates permit us to say that expenditures for these service structures described do not result in an over-all increase in cost, provided they represent an equivalent quantity withdrawn from the individual apartment areas. This leaves the question of maintenance and operating costs. This can only be resolved in estimating the useful labor being gained by freeing women from household work, since only approximately one half of the women released from household chores will be required to serve in the communal facilities.

Real Housing Policies
When I mentioned earlier that the policies of responsible agencies in the USSR remain firmly anchored in reality and are far removed from any indulgence in politics of illusion, then this applies above all to the problem of housing. In centers of industrial reconstruction, such as Magnitogorsk and Kuznetsk, and in the mighty push to accommodate 700,000 miners with their families by December 31 of the current year, 75 percent of the housing will consist of individual dwellings, and only 25 percent will be collective and/or communal housing.

The Structure of the Socialist City
On the basis of the foregoing evidence you may be able to gain a broad overview of the organic development of the city, which I will now briefly retrace. While the capitalist city has developed concentrically around the market place, and while the rich, the middle classes, and the proletarians live in clearly separated districts of their own — this differentiation of class structure being recognizable from afar and defining the capitalist city’s peculiar character and form — the city in the USSR knows only one class, the class of the working people. Therefore, apart from the aforementioned requirement of locating people as close as possible to their respective places of work, the task consists in the equitable distribution of all communal functions, for everybody’s equal
enjoyment. In other words, nurseries, kindergartens, schools, stores, laundries, ambulances, hospitals, clubs, cinemas, and other facilities should be apportioned in such a manner as to be within a comfortable and functionally optimum distance from the dwellings.

Naturally there may be a number of different solutions to satisfy these conditions. During the planning of the city of Magnitogorsk two schemes finally emerged from among the others for comparison and [199] evaluation. The proposal by Chernichev suggested a tripartite division of the city and provided each separate part with its own center; the proposal advanced by myself in collaboration with my closest associates was based on the principle that the Socialist city must be conceived in terms of conceptual unity, and we rejected the three-part segmentation of the other scheme as being arbitrary, demanding instead the creation of organizational elements that would be made operative by the propitious use of communal service facilities.

My proposal calls for units of 8,000-10,000 population, the so-called “quarters.” The Commission of the Sovnarkom, which was asked to make the final decision, decided to select my proposal. It has become the basis of all other projects undertaken with my assistance.

City Building and Cost

Considering the billions that the USSR is investing not only in building up its industry but also in the cities attached to that industry, and further considering that these sums do not come from loans but out of current income, it may be interesting to find out to what degree the problem of city-development costs has been solved there, keeping in mind that in the old world [Europe??] this problem has so far remained almost completely unsolved. In the previously mentioned book by Miliutin, a short chapter entitled “Approximate Development Costs” deals with the essentials of new city financing, based on a program prepared by the State Economic Planning Agency “GOSPLAN.” In order to arrive at a broader picture, these estimates should also include the cost of all public buildings, food combines, transportation facilities, etc., so as to provide the reader with a more complete summary of the total cost of the Socialist city.

Furthermore, this figure should be complemented by a comparable parallel cost estimate for the industrial base, while a deduction of operating costs and interest on capital for city development from their proceeds may give us something resembling a first rough estimate of the cost of the Socialist city.

Before going on, it should be pointed out that the emphasis is on “something resembling”; for at the present no precise figures are available and probably will
not be available in the near future. However, we do know that in the USSR expenditures for development of the Socialist city run somewhere between $250 and $350 per capita, assuming parity between the ruble and the dollar. As long as the tempo of work maintains its frantic pace, and as long as some of the obstacles — to be described below in detail — are not removed, cost accounting will have [200] to continue on the basis of rough estimates rather than on the basis of mathematical and scientific accuracy, with the concomitant danger of both major and minor departures from reality.

Development Obstacles
The Five-Year Plan of the USSR is indeed a grandiose venture, and one cannot but admire its clear objective and the forthright way chosen to achieve its goals. However, any account would remain one-sided if the enormous difficulties that must be overcome to fulfill the plan were left unmentioned, particularly those in the area of building construction. Earlier I mentioned the acute shortage of manpower, above all skilled labor, capable of carrying out the necessary intensive work. I am not even thinking of technical personnel, which could possibly be upgraded by the rational enlistment of the talent now concentrated in the big cities — this no doubt will be done eventually — but I am speaking of the most primitive class of labor, meaning workers doing the digging, bricklaying, carpentry, etc. The new labor force now migrating into the industrial centers is drawn primarily from the rural population. These people, as is well known, still live on a very low level of cultural development, especially those coming from some of the more remote provinces. If one wishes to judge conditions in the USSR fairly, one must keep in mind that it may be quite easy to civilize countries of the size of Germany, Austria, or Italy, but it will require a generation of virtually superhuman effort to push even the most elementary principles of human civilization to the shores of the Arctic Ocean and the Mongolian border.

The human problem is matched in magnitude and importance only by the transportation problem. In many respects the Soviet Union of today may be compared to a capitalist real-estate holder who has many valuable assets in his possession but is unable to put them into use and is thus subject to a feeling of abject poverty.

Vast resources are hidden throughout the land, beginning with platinum and gold, and ending with wood and coal; their presence has been explored and is a matter of record. However, a look at a map will reveal that hardly any transportation lines exist in the Asiatic part of the USSR. The only exceptions
are the Great Siberian Main Line, a few smaller branch lines, and the new Turksib Line. All other transport moves laboriously by river, small carts, or sledges. The hectic work pace after the war hardly allowed time for the maintenance and replacement of existing railroad facilities; few of them were in first-class condition to begin with. As a result of this, the transportation and handling [201] of the enormous quantities of goods to be shipped has become a serious problem.

Hardly less of a problem is the shortage of important building materials resulting from the general neglect of industrial development in prewar Russia, which failed to establish a building-materials industry of sufficient capacity. As a consequence of all this, the USSR is presently faced by the enormously difficult task of having to develop programs for both industry and agriculture on an unprecedented scale, while at the same time having to produce out of thin air factories that will provide the basic production facilities for construction and building materials. Steel, glass, roof-covering materials, cement, and many other items have been placed on so-called lists of deficit materials and may be used in domestic construction only in very special cases.

For this reason a number of directives and regulations have recently been published, containing the most stringent measures concerning the economic use of materials, and prescribing the most intensive utilization of available local materials. A clear recognition of essentials gives first priority to industrial construction in both city and country, while housing is relegated to second place.

The Big Push: 700,000 Dwelling Units Before December 31
Given all of this, the reader should be able to appreciate what it means to organize the undertaking presently being carried out under my supervision in response to a resolution of the Council of People’s Commissars, as well as in response to the personal initiative of Stalin. It calls for the housing of 700,000 workers and their families by December 31 of the current year.

Special consideration is to be given to the Don Basin, the Kuznetsk Basin, the Urals, and Karaganda.

To conclude my remarks, I should like to give you a small overview of one sector of this crash program, namely the organization of a group of 250,000 dwelling units in the Donets District:

All the work is carried out on the basis of the most radical standardization and modular coordination of the whole building process. While a group of twenty architects visited the 150 building sites in the Donets District, choosing and
surveying sites according to previously prepared directives, the central agency
drew up plans and designs for typical housing units, to be assembled later on
the sites selected. Fifteen different dwelling types have been developed, most
of them consisting of large, standardized units produced by the big Russian
lumber works, and ready for final assembly on the site. In the factory
each piece is stamped with a number and the designation of its location. This
prevents confusion during transport and assembly. A special Building Materials
Department organizes the delivery of materials, and local supervision is carried
out by a special building trust (Donshilstroi), created for this very purpose. The
headquarters of this whole trust is in the Ukrainian city of Kharkov, with
branches in the six main regions of the territory. These branches in turn
maintain a number of District Construction Offices, each charged with the
supervision of five or six settlement sites.

I mentioned earlier that there is a shortage of certain building materials, as for
example roofing. Using a well-equipped laboratory in Moscow, we are trying to
find substitutes for these shortages. A number of highly qualified scientists are
contributing to this effort. In order to control speed and quality of construction,
the following three procedures have been initiated. A schedule of target dates
has been prepared for each construction site. Progress is checked in the office
of the Ukrainian headquarters by a scanning of telegraphic reports submitted
each 3-5 day period. These reports are in turn checked against a copy of the
construction schedule. Three so-called control brigades, using automobiles,
speed from site to site, checking compliance with technical directives as well as
the rational organization of construction. Finally, the production manager and
his staff make surprise control visits. Action in the Urals, the Moskva Basin, and
the Kuznetsk Basin is organized along similar lines. It goes without saying that
extreme flexibility of organization must be tolerated to offset the existence of the
many difficulties mentioned above. We strive for the impossible while achieving
the possible.

Conclusion

In Moscow, only the day before yesterday I boarded the international train that
had just arrived from Harbin and made my way to the dining car. There I
noticed a very un-English Englishman, who was busying himself by going from
table to table, pointing at small blemishes on the table cloths and repeating in a
nasal voice: “Oh, how dirty!” He is going to say nasty things about Russia. I too
saw these blemishes; I saw the difficulties in the area of nutrition that exist in
certain localities; I saw the poorly maintained buildings in these large cities; and
I also noticed the ugly impulse toward bureaucratization in the USSR, which — by the way — may eventually become one of the best arguments [203] for opening up the official pipelines of international understanding. *In spite of all this, it is impossible to deny that what is being accomplished there at this moment in time cannot be called anything but a historic act.*

I am pleased that the Congress for New Construction [CIAM?] has decided to hold its next year’s meeting in the USSR. Its participants will have an opportunity to form their own judgments about the achievements and the work accomplished there, and may be able to report to all countries what they have seen. This may also help remove many of the prejudices that obstruct international understanding and peaceful cooperation among nations.