

URBANISTIC WAY OF THINKING OF THE SOVIET AVANT-GARDE

By

Susan F. KÖRNER

Department of Town Planning, Technical University, Budapest

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Presented by Prof. Dr. Kálmán FARAGÓ

In recent years several studies have been dealt with the activity of architectural schools and societies which had an important part in the development of modern town planning principles. Numerous books and monographies have been published on this subject, but they hardly mention or analyze the town planning practice of the period.

The professional interest in how town planning thinking has developed a more detailed analysis of this hardly investigated domain of activity of the Soviet avant-garde is encouraging.

This is a concise report of several years of research into the roots of the special Soviet features of the town planning thinking of that age. Further on, examples taken from town planning practice will be analyzed to trace the changes in town planning principles of the Soviet avant-garde.

Society organization and environment design problems after the Great October Revolution

In the 19th century, a wide range of sociologists, engineers and historians were concerned with problems of town development. Already investigations by E. CHADWICK, H. GEORGE and FR. ENGELS stressed solution of problems of urban areas and town dwellers to be inseparable from the simultaneous solution of social problems.

In the first decades of the 20th century, town planning received new initiatives from avant-gardism quite opposed to the realization of some idyllic past or idyllic future, as against either the romantic or the utopistic school. Avant-garde is not just a "recapitulation" of artistic trends in the socially and politically complex first third of the 20th century. Different trends in this age — among others, futurism, dadaism, surrealism, expressionism — raise indeed very concrete economic and social problems rather than to be only expressions of a new kind of artistic sensitivity born out of the break with 19th century art.

In Russia, after the victory of the Great October Socialist Revolution, an activity supported by LENIN and LUNACHARSKY, expected to solve the contradiction between the changed society and the inherited built environment, evolved. It was not directed by eclectic architects any more but by young architects, painters and sculptors, grown up in avant-gardism.

In this period, "construction of socialism" meant, in lack of effective building activity, beside practical canvassing work, first of all theoretical research aiming at social organization and environment design tasks.

In this group of theoretical research, two definite lines may be distinguished. One is concerned with possibilities to change the inherited environment, the other tries to shape the new architectural environment, inspired by the changing way of life.

Concept experiments in philosophy of arts to reshape the inherited environment

The avant-garde tried to change with its own artistic means, though simplified, the inherited urban environment. Specific avant-gardist experiments to answer this question are primarily

1. the constructivist propaganda,
2. the *Proun*¹ space in the philosophical system of LISITZKY and
3. the activity of the Ladovsky Studio.

1. TATLIN, the best known member of the *constructivist group* already in 1914, analysing the artistic reality and the reality of life strove to break away from the "academic backgrounds" and "frames" to join both realities by using the inherent technical possibilities of the materials (wood, steel, glass) he considered as "true". Soon the "stages" provided by streets and squares became insufficient for the constructivist propaganda, that entered even the air space of the town. For a mass festival organized by MEYERHOLD in 1920, L. POPOVA and A. VIESNIN designed a cable structure, lifting the socialist slogans above houses and factories. Examples for such symbolical changes of the physical environment also exist in later years, e.g. a particular influence of political symbolism may be discovered in the French surrealism.

2. The political management felt any facility to induce changes in the physical environment likely to be of importance. This view was supported by LENIN himself on every forum.

Beside Tatlin, E. L. LISITZKY was inspired by this idea, also he searched for ways of the spatial appearance of the material, such as to reflect the

¹ *Proun* = Pro + Un(ovis), name of a school founded by Malevich in Vitebsk in 1919 where also Lisitzky was a professor.

changed world. In the twenties Lisitzky was concerned before all with two problems: what new forces get released by changes of the built environment, and how the changed environment reacts on man. Research of several years brought about the philosophy of the Proun space of Lisitzky. The Proun is fundamentally a "system of forces" arisen in design, able to organize both the material and the space of the material world. Lisitzky suddenly realized that the creation must generate its environment. The typical avant-gardist problem of the volume became in this philosophy an environmental problem, thus, rather than the problem of the subject-matter and spatial appearance, research is focussed on how the system of forces in the object can "manipulate" its environment. The so-called "Proun" space, in which the built structures are perpetuated, is mobile, open in a suprematist way, and satisfaction of new demands cannot raise problems in it. The Proun as an object may organize the dimensions of the space. Nevertheless the strange philosophical immaterial materialism lent in many cases modernity to the architectural suggestions of Lisitzky. When e.g., to stress the urban character of Moscow, he placed his "cloud-flat-irons" at crossroads, named by him critical points, he looked for those places which could become starting points of a later building process. Socialist town reconstruction meant for him, above all, emplacement of groups of institutions, new by form and by internal organization, likely to stress the contrast between old and new centre parts and to give a new scale to the town: in this sense the "cloud-flat-irons" mean a positive form for the Proun space.

3. The *Vuitemas*² school of Moscow, issuing in 1920 from an earlier art's school, set out to elaborate architectural aspects of spatiality. Experiments directed by N. LADOVSKY aimed at collecting and analyzing architectural aspects of technique and technology and to discern *psychological and aesthetic regularities*, based on observations. In the analyses of Ladovsky, men are not aware of a place of the material's constant changes but as an environment where the forms are of primary value. The aesthetic theories of the avant-gardism were applied equally to painting, sculpture and architecture. An interesting peculiarity of Soviet avant-gardism is often to extend aesthetic laws to town planning. Just the philosophy of art by Ladovsky induced such an extension, by the foundation in 1923 of a new Federation of Architects named *Asnowa*.³ The nucleus of their programme was to find a permanently valid scale of values for architecture, screening out the unavoidable amateurish overtones of the storms in a revolutionary era. Within this scale of values the decisive value was the development of expressive forms.

The bulletin of *Asnowa* "Socialist reconstruction of Moscow" published in 1926 suggests to indicate the new atmosphere of districts and streets by

² Abbreviation for Upper Workshop for Arts and Engineering.

³ Abbreviation for Association of New Architects.

colours, a cheap solution compared to construction costs, of distinguishing the old Russian townscapes from the townscapes becoming Sovietic. In the background of this motion both the psychological form and colour research of the Ladovsky Studio and the "proletcult"⁴ ideas, still very impressing by the early 'twenties, can be recognized.

The "commune-house" as a new type of environment

In the early 'twenties another architectural research trend was to set up design schemes joining the supply with housing and with fundamental institutions to create a new-type environment.

Before analysing in detail what it means to organize the mentioned function into a qualitatively new organizatory unit, first the concept of organization had to be investigated. To this purpose, the methods of economy management of the twenties need to be shortly reviewed.

The period of war-communism has totally disorganized the market, and in economy it led altogether to a swift naturalization. Speedy inflation made money as a currency increasingly illusive. The State had to assure public supply by dictatorial means. Inhabitants could get their limited quantity of supplies only in an assigned shop. With gradual narrowing of money circulation the workers became more attached to their jobs than ever before in history, because in the years of war-communism the part of their salaries expressed in money gradually decreased, the other part was distributed as food and clothing. The economic measures of war-communism made dream many architects and even economists of a short way from capitalism to communism. The relations of population to supply and job are elementary for life so that their dissolution had to act also ideologically. Curious enough, the ideology acted even in later years, when methods of the socialist economy had already changed; the new economic policy (NEP) restored the goods-and-money conditions.

In 1920 the 9th Party Congress made official the military organization of work program of the Party. Because of the general belief in the long-term validity of this policy, architects expected factories to have an important role in this economic arrangement.

Another group of architects suggested to develop architectural frames in residential areas organizing the inhabitants and encouraging them to lead a collective way of life. For this an overall concept was necessary which, beside directing family connections, disposed of nearly every minute of the inhabitants spent at home.

This concept was realized in plans of the *commune houses*. The organizatory forms changed often in the heat of discussions between 1920 and 1926, till a generally accepted model matured: the "commune house" had to contain

“dwelling cells” of small floor area, satisfying mass demands at low costs, further a children sector, repair shops, eventually a club room. The new type of housing corresponded to a social policy undertaking as many functions of the family as possible.

As the scale of “commune houses” began to increase in the Soviet concepts, beginning with 300-bed types up to 2400 and even 5400-bed types, so the hope in “commune houses” strengthened on an ideological level. From 1925 on, the *Ossa*⁵ urged the construction of such blocks of flats, because they were believed to be the only able to provide a primary supply system in a socialist town: even to be more rewarding to operate day nurseries, kindergartens and other community centres to a scale of several thousands. At last, the “commune house” became a type of environment inseparable from the residential area of a socialist town: after 1928 this form was specified for 25% of the flats in the program of every planned town.

Research laying the theoretical foundations for the design of new towns

Research between 1917 and 1926 provided the theoretical foundations for town planning in the period of the first Five-Year Plan. In some domains numerous positive experiences were available, but these being only part results, principles and requirements of a homogeneous settlement planning system could not be cleared yet.

A comprehensive town planning research could only develop after 1926 with changes in economic management. Industrialization was launched according to STALIN’s political concept. The new trend of economy was accepted by the 16th Congress of the Communist Party in 1929.

Industrialization and urbanization

The process of industrialization accelerated urbanization in some parts of the country. Where the volume of industrial investments was important, a quick increase of the urban population could be registered. The program of the Five-Year Plan specified an urban population increase from 27.7 to 35 millions by the end of the Plan period.

While the industrial centres were already under construction, plans for new towns had to be developed in as little as 2 to 3 years. This close possibility of realization stirred up the whole society of architects.

⁴ Mass organization for public education, active for about 10 years after the Great October Revolution, striving to create a special proletarian culture.

⁵ Abbreviation for Society of Modern Architects.

First they revised all knowledge available from the history of town planning. Not only peculiarities of the already accomplished process of urbanization had to be appreciated but also the future trend of this process outlined.

Just as pro's and con's of European urbanologists by the turn of the century, also studies of Soviet architects affected first the cities. They were unanimous in that the big cities of several million inhabitants should be discarded as cancerous growths of capitalism. It may be stated that the question of scale divided the opinions of Soviet architects less than the problem in what a territorial structure the system of production and supply establishments should be concentrated or if it was altogether necessary that working and dwelling places should at all be concentrated in towns.

Urbanistic and desurbanistic town concepts

For those dealing with the Soviet avant-garde, the group terms "urbanist" and "desurbanist" are generally accepted today. These denominations may be deceptive by suggesting to reflect the bifurcation of the urban concept in the activities of the two groups in the '10s and '20s, i.e., to oppose big cities at all or to accept them with means of disburdening.

On the contrary, their leading ideas will be illustrated by way of a short survey of the activities of the two groups.

The *desurbanists* set out from some predictions by MARX, first of all from the statement that in the collectivized and industrialized society the inherited settlement network will change basically. TCHITOVITCH, leader of the group, is responsible for the development of the desurbanist town concept, stating the entire European territory of the country to become an urbanized region by the time when agriculture will change to industrialized production. The *Goelro Plan* developed some years earlier had a similar feature assigning the housing activity to new centres of the planned power system. Desurbanists stated not only the power system but also traffic and transport lines to be crucial for the life of the country switching over to industrial production. In their picture of the future, co-ordination of the industrial and the agricultural production, the housing areas and the traffic networks would result in a continuous circulatory system throughout the urban landscape, assuring the efficient function of every small or large region.

One of the most frequently published plans of the group, — "The socialist reconstruction plan of Moscow" — presents the whole desurbanistic "panoply". What did desurbanists mean by reconstruction? According to the designers M. BARTSH and M. GINZBURG, "Gradual and systematical resettlement from Moscow" should involve:

- a) industries of Moscow,
- b) scientific and higher educational institutions,
- c) administrative institutions in Moscow . . .

All these mean no immediate costs, because this migration is a long and gradual process.⁶ The population would partly follow the resettled industry, partly settle along routes connecting the nearby centres with Moscow. The town becomes gradually an immense park. The reconstruction resulted in a radical solution indeed; the old town disappeared and a new spatial order arose along the routes between the production centres.

The theories of the desurbanists were such a success that they were mostly underlying the competition plans for the new town to be constructed near the metallurgical base of Magnitogorsk, in 1930.

Thus, the radicalism of the desurbanists embraced everything: it developed a town fabric focussed on traffic and realized consistently the party policy: people must be given a more scattered form of settlement, simultaneously assuring the advantages of both urban and rural way of life. This radicalism by far exceeded material and technical possibilities of the first Five-Year Plan period. Opponents of the outlined principles disagreed from an economical viewpoint with the multisection buildings of low density of population.

The *urbanists* had no such an overall, detailed concept as had the desurbanists. They considered the socialist town a conceivable, closed unit. Since the research goal was bounded, clear-cut, an optimum scale had to be found.

The ideological leader of the group, the economist SABSOVITCH assessed to 15 to 20 years the time needed for the existing settlements to get the desired optimum scale, a time long enough to reduce the number of city dwellers and to depopulate villages not up to requirements.

Sabsovitch set up the optimum scale for towns by analyzing data of the national census in 1926. The census gave the following notion of the towns:

Number of inhabitants	Number of towns in each category
> 1.000.000	2
500.000—1.000.000	1
300.000— 500.000	5
200.000— 300.000	4
100.000— 200.000	21
40.000— 100.000	71
< 40.000	617
Total	721

Based on statistical data, the town of about 50 000 inhabitants became in later urbanist plans the most frequent scale.

⁶ Ginzburg, M.: Sozialisticheskaya rekonstrukziya Moskvi. Sovremennaya Arkhitektura, No. 1—2, 1930.

Most of the urbanist plans contained formalist fancies of a town fabric. These formal and structural principles evolved from the activity of artists and architects, representing the psychological-technical trend. Many a plan reflects theories of the Ladovsky Studio.

The ideology of the urbanist group was also influenced by economists who were cautious enough to raise doubts against the party policy to erect new towns, on the basis that in the history, town development started from industrial potentials and cultural traditions of the existing towns. Economic and social constituents of this development are, however, too complicated to be controlled by directives. They debated the suggested number of 50 000 inhabitants, finding this a scale too small for the new town to act as organizer of a wider area. Also, even if the town cannot be planned as a unit because of several uncertain ties, these economists considered residential areas to be well defined units for town planning. This approach to town development did not perceive regular processes, doubting any prognostic concerning the social-economic indices for a region.

This wing of the urbanists was declared by the 16th Party Congress to be opportunist and rightist, although they accepted town planning in the very same domain, i.e. the residential area, as the urbanist wing labelled leftist by the Party Committee.

Several "leftist" urbanists active within the *Aru* were concerned with features of a well proportioned and well organized physical environment in a completely collectivized future society. For this organizing and environment forming role the "commune houses" seemed suitable. In this sense the region is not a perpetuation of traditions as thought by the "opportunists" but a radically new collective space of the socialist society. Of course the "commune house" was not only the planning tool of urbanists, since every desurbanist plan contained it as well, like a kind of housing. But now they became for the first time the "building bricks" of a town, and superposition of the blocks is no subject to timely or physical limits.

Extension of the economical approach to town planning

The "socialist town" as a functional town

Architectural reviews and societies, even Party Congresses were theatres of keen discussions till 1930. GINSBURG attacked the urbanists, since although they progressed from the abode to a larger scale, to town planning, but — he wrote — the problems of a new society cannot be solved correctly within a smaller or larger collective. He felt all conditions to develop a collectivized supply network to exist, urging to satisfy the cultural and supply demands of the masses.

The 16th Party Congress called the desurbanists utopists for their concepts supposing a socio-economic level not to be realized at all in an industrial-agricultural country. Also urbanists were labelled utopists, the Congress took a distance from the phalanstery town, and commune housing was soon abandoned. The Central Committee commissioned the Council of People's Commissars to work out present and prospective directives for worker housing. The Academy of Architecture investigated in detail the directives of town planning scale, function and economy. This work conducted by N. A. MILUTIN attempted to reconcile the "leftist" and the "rightist" views. In the problem of scale their attitude was to avoid construction of too big cities. In his book published in 1930 "Problems of Construction of Socialist Towns" Milutin explained in a peculiar way the impossibility of either the urbanist or the desurbanist concept: according to Milutin, a planner of the socialist town cannot favorize urbanization, leading, in final account, to big cities in which the presence of technologically unconnected industries might be the root of "harmful growing processes". Thus urbanization is equal to a noxious industrial and housing concentration, while desurbanization means a net of scattered villages.

Based on the new directives, a town of 100 000 to 200 000 inhabitants was to be favoured, but even populations of 50 000 to 100 000 were acceptable.

Milutin summarized the requirements for socialist towns:

1. Presence of an outstanding industrial branch;
- 2 limited population;
3. proper agricultural supply centres;
4. structural and layout features offering advantages of both urban and rural ways of life;
5. service and supply systems and organization of public institutions relying on research concerned with the socialist way of life.

According to one of the most important directives of the Academy, the zoning of the socialist town must be adapted to the industrial production. The factory area and the residential area should be divided by a green belt, not wider than to keep an acceptable walking distance between the residence and the working place.

The academic viewpoint on the socialist town was closer to the town concept of the urbanists. Also the theory of regional planning included the recognition that in agricultural or industrial-agrarian countries the first stage of urbanization concomitant to industrialization could be only towns with adequate central functions. The town may influence regional employment and the industry may help to forward the possibly backward agriculture of the region.

The socialist town of the Academy of Architects, controlled by territory and supply rules, became a linear city with the following zones:

1. railway,
2. industrial area,
3. green belt,
4. residential and supply area.
5. sports and recreation parks (separating at the same time the residential and the agricultural region),
6. agricultural area.

In his town planning concepts Milutin applied the principle of parallel functional territories in order to keep low the traffic and transport costs within the settlement.

By 1930, the linear-functional town took the lead. It should be noted that this was not a new concept in the history of town planning, as the French architect TONY GARNIER developed his "industrial town" already in 1904 according to similar principles. The garden-town movement, relying on HOWARD's principles, also retained the territorial division of functions; settlement geography investigations only supported the pioneering role of theoreticians formulating the up-to-date principles.

Problems of building technology and building materials production emerging in the period between the evolution of the principles and the beginning of the constructions pointed to the pressing need for a body of specialists devoted to both up-to-date principles, and rigorous economical approach.

Foreign specialists directing Soviet town planning

In Europe, up to 1930, beside the Soviet Union only Germany had a building activity with a comprehensive program. After World War I, with architects participating in the work shifting more and more to the left, the program gradually obtained a socialist content.

Besides of economists, the Soviet Union needed town planning architects from the West, therefore planners entering into contract got immediately to the forefront of Soviet town planning: ERNST MAY, HANNES MAYER, FRED FORBAT, MERT STAM and many others.

Activity of architects from the West further refined the functional town both in fabric and in content. The prescription of parallelism between industrial and residential areas was cancelled, it being counteracted — e.g. in the case of Magnitogorsk — by many topographical and mining arguments. The width of the green belt dividing the industrial and the residential areas was exactly established as a function of the industrial air pollution. Co-operating with geologists and economists, a prognostication was made for development possibilities of the industrial zone, and housing was adequately scheduled,

further insisting on the order of 200 000 to 500 000 capita. Actually this limitation was imposed by the prescription of light industry to be settled above this scale but in the given economic situation this possibility was rather uncertain. Thus the professionals preferred to evade this problem. The earlier functional zones were further improved with the advent of the so-called "service sector", comprising central food stores, repair shops, furniture works, a pharmaceutical chemist, central vegetable storage, a slaughter house, etc.

The principles of planning the residential area were established by the foreign architects, suggesting to articulate the residential area into districts of 8 to 10 000 residents with a school, a department store, perhaps a public bath, and to divide the residential district into smaller units with about 1000 to 2400 inhabitants around a nursery school, a kindergarten and a restaurant. This articulation of the residential area of the functional town of the Soviet avant-garde follows by but a couple of years the first theoretical concepts of this system. The plans of the "neighbourhood unit" by CL. PERRY in 1929 prepared for *Radburn*, by CL. S. STEIN and H. WRIGHT in 1928, already contained the principles of suitably grouping the primary establishments, a useful method for articulating and organizing the physical environment. Although the "commune houses" may also be considered as social-oriented socialist neighbourhood units, nevertheless the functional articulation is only the first step of realizing a system of residential units. The technical development and the degree of motorization in America imposed later to separate the major footpaths and traffic roads, as did the *Radburn* plan, however, this could not be afforded by the less developed Soviet economy.

The architects of the West applied housing design principles developed by the *Bauhaus* group, taking isolation of each flat into consideration, thus endowing complete uniformity on layout plans of the new Soviet towns. Without some topographical differences to identify each town, it would be difficult to tell apart the plans of towns *Makeyevka* and *Orsk*.

By 1932 structural and cost norms of the social town were definitely set up, thus accelerating planning of a series of standard towns. Data available on the number of these standard towns are rather different, however, there must have been quite a number of them, as seen from a paper by M. ILYIN published in 1931 in Berlin, stating that in that year 30 new towns were projected. According to other data, in the period from 1926 to 1936, 46 new towns arose, — not counted worker's settlements.

All the principles outlined in the Soviet avantgardist functional town were confirmed 3 years later at the 4th CIAM Congress, again centered on the functional town. The position taken up by the Congress was later published by LE CORBUSIER in the "Athens Charta".

The CIAM Congress made two important resolutions, after analyzing problems of over 30 big cities:

1. the town has to fulfill four functions in the possibly best way: those of residence, work, recreation and traffic.

2. After necessary analyses, taking all the urban detail problems into account, town planning has to develop a comprehensive plan, comprising also the surrounding region.

Although the Athens Charta was revolutionary by evoking the feeling of responsibility of the whole world for urban problems, its deficiencies could only appear in realizing the plan arisen in this spirit. The heading of article 88 of the Charta text, published in 1941, is: "Starting and crucial point of town planning is the dwelling cell organized into a group defining the scale of the residential unit." It is not understandable here, what is the purposeful scale to be organized around by the institutions of supply, education and use of leisure time. The Soviet functional town could of course not avail of this dullness in the Athens Charta, leading to the development of the quoted system of residential units. Also that part of the Charta text is obscure where rules and specifications are mentioned, likely to make the master plans realizable. This is an especially delicate problem in the society of the West, because a town is unlikely to overcome the network of private interests.

Finally, the deficiency of the Charta to inadequately specify the role of public institutions and of city centres — granted functional territorial independence only later — may be noted. This is also true for the Soviet functional town. Most of the plans assured only those functions of the centre, that organized cultural life, political education and information; a centre without worker's clubs and so-called "House of the Soviets" was inconceivable.

After 1933 the Stalinist policy grew increasingly distrustful of the foreigners working in the country and hindered whatever their work. At the same time, the already constructed towns were attacked first of all because of the townscape, the dreary mass of buildings, the monotonous residential areas.

Investigation of town planning principles was thrust into the background for a long time and activity of the architects was limited to sketch more pleasant layout plans to make the environment more "socialistic".

For about two decades after avant-gardism was off, both the Soviet and the European urbanology considered functionalism as the most important town planning principle because its clear, self-contained logical system could always realize order in the human environment.

In the 'fifties also town planning could not help to recognize that people did not like to live in this "order". Society missed the "urban milieu" seen to be very difficult to realize with divided functional areas and layout alternatives.

No doubt, by that time the Soviet avant-garde architecture and town planning had a high importance, and they greatly contributed to the formula-

tion of up-to-date town development principles. It is also worth of consideration how much experience and knowledge could have been gathered by European town planning in the next decades, if already at that time not only the plans of the Soviet avant-garde but also the erected towns would have been accessible to all interested.

Summary

The young architects, growing up in the atmosphere of the avant-gardist artistic movements, tried to exactly define the concept of the socialist town through theoretical debates and plans. The activity of "desurbanist" and "urbanist" groups is noteworthy, because of their attempts remarkable even today to develop the scale and structure of the socialist town.

In the period after 1930, functionalism became the most important ordering principle. Widening of the building and planning possibilities contributed to the realization of a part of linear-functional town concepts.

Results of this study prove that the Soviet town planning practice between 1930 and 1933, already forecasting the problems and the spirit of the "Athens Charta", influenced for decades the European town planning.

Assistant Susan F. KÖRNER, H-1521, Budapest