



Socialist Towns: A New Development of Housing Policy in the U.S.S.R.

by

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For several years the International Labour Office has been studying the problem of housing in its relation to the workers' conditions of life, and a general survey of housing policy in some European countries¹ was published a few months ago in this Review. The following article, dealing with the U.S.S.R., completes the information there given. After a brief historical sketch² the author outlines the new conditions in which the housing problem presented itself when the general principles for the industrialisation of the country had been laid down by the Five-Year Plan. He explains the conflicting tendencies in building policy which were the immediate outcome of these conditions, and shows how in 1930 the authorities were obliged to embark on a series of measures designed to bring order and purpose into the necessary housing operations. He then describes some recently completed schemes, and in conclusion explains the technical and financial difficulties which stand in the way of further progress.³

AT THE present moment special interest attaches to the housing problem in the U.S.S.R., by reason both of its magnitude and of the reactions it is bound to have on town

¹ Cf. *International Labour Review*, Vol. XXIV, Nos. 2-3, Aug.-Sept. 1931, pp. 201-227: "Building Difficulties and Housing Policy in Post-War Europe", by Robert GUYE.

² For an account of housing policy in the U.S.S.R. down to 1923, cf. INTERNATIONAL LABOUR OFFICE: *European Housing Problems since the War*. Studies and Reports, Series G (Housing and Welfare), No. 1. Geneva 1924.

³ While this article was in the press, a copy was received from the International Housing and Town Planning Federation of Dr. Hans KAMPMMEYER's study on town planning in the U.S.S.R., which contains much information on the technical aspects of the problem studied here. (*Wohnstätte und Arbeitsstätte. Homes should be near Workshops. L'habitation et sa distance du chantier. Veröffentlichung des Internationalen Verbandes für Wohnungswesen. Frankfurt on the Main, Julius Hoffman. 69 pp., illustr.*)

planning in general and on housing in particular. Consideration of the measures proposed for the solution of the problem may usefully be preceded by a brief survey of its historical background and present setting.

First of all, it must be remembered that before the war the housing of town workers in Russia left almost everything to be desired. The poorer districts were even more overcrowded than in the other European countries; in every building all the habitable rooms and even rooms not meant for living in had a considerable number of occupants, and numbers of people lived in cellars and sheds. Worse still, it was by no means rare for several families to live in a single room. At best, the working population was housed in enormous barrack-like buildings, most of which were built near the great factories and away from the main country towns.

After the Revolution, under the pressure of the people and to emphasise its class-levelling policy, the new Government introduced municipal ownership of housing. The well-to-do who had large houses or apartments were evicted from all or part of these and workers' families took their place, often with disastrous results for the upkeep of the buildings. This attempt at a solution of the housing problem characterised the whole period up to the beginning of the new economic policy, and its results were pitiful. Not only was the population no better housed, but the buildings fell into complete disrepair: central heating, drainage and other common arrangements were often in a lamentable state, and many houses collapsed utterly for lack of repairs in which the tenants had no direct interest. In many towns, too, some of the wooden houses disappeared, being pulled to pieces for firewood.

Thus "at the beginning of the reconstruction period the supply of dwellings in the towns of the U.S.S.R. was perceptibly less than before the war. It is true that the total floor area was much more equally distributed among the population than before, but the use by more than one family of dwellings not built for that purpose caused a considerable decline in sanitary and other housing conditions."¹

While the new economic policy led almost at once to an improvement in the other branches of economic life, it long

¹ *Pjatiletnij plan narodno-khozjajstvennogo stroitelstva S.S.S.R.* (The Five-Year Plan), Vol. II, Part 2, p. 271.

failed to raise house building from the depths into which it had fallen. During the first two or three years—i.e. until 1923 or 1924—there was no noticeable improvement in conditions ; on the contrary, they were made even worse by the return of numbers of townspeople who had fled to the country districts. However, the legislature did its utmost to encourage house building, and with this object in view both old owners and new builders were given advantages. Numbers of small houses were returned to their original owners and building was encouraged by exemption from taxes.

A new phase in the housing policy thus began in 1923. The first phase had been marked by what may be described as a political solution, the more or less equal division of the existing accommodation ; the feature of the second was to be the construction of houses for letting by every possible means, without any general plan or method. The new economic policy resulted in a more complete abandonment of communistic theory in housing policy, and above all in house building, than in other fields of activity. At the beginning of this second period the Government had in any case little choice. As a result of the return from the country districts of the civil war refugees, the towns were full to overflowing ; besides this the natural growth of the population, in town and country alike, was enormous, the annual excess of births over deaths, which had been 16 per mille before the war, rising to 22 per mille and higher. And from 1923 onwards, large numbers of landless and workless peasants poured into the towns in search of the employment promised by a rapid revival of industry.

Leningrad provides a very characteristic example of this state of affairs. The population had been 2½ million in 1914, had fallen to 700,000 by 1920, and had again passed 1½ million in 1926. Such changes were the rule rather than the exception. In 1923 the urban population was 22 million and in 1926 it was about 26 million—an annual increase of 6 per cent. It should be pointed out, however, that apart from certain exceptional cases such as that of Moscow, this was simply a process of recovery to the pre-war level, and that the town population is still very small in comparison with the enormous numbers of peasants, who in 1924 still represented 85 per cent. of the total population.

It was therefore absolutely necessary to deal with the housing

shortage, which was already deplorable and bade fair to become a social danger. The fact that 20 per cent. of all town dwellings are estimated to have been destroyed or fallen into complete disrepair in 1921 gives an idea of the position. The figures for Moscow are typical of the whole country. In 1915 that city had 13.6 million square metres of floor space ; in 1924 only 9.8 million square metres remained, though the population of Moscow was increasing even more rapidly than that of other towns.¹

The years 1923-1928 saw a considerable resumption of building activity. The State and the co-operative societies invested nearly 1,000 million roubles in the construction of nearly 7 million square metres of floor space to be let for dwellings. This activity increased with that of the national economy as a whole. While only 105 million roubles were invested in house building in 1924-1925, the figure was nearly 400 millions in 1927-1928, the principal agent in this increase being industry, which paid 415 million roubles on the construction of dwellings for workers in four years. The municipal authorities (executive committees) spent 318 million, while the housing co-operative societies, which were not fully developed until the end of the period, invested 155 million, 80 of which were spent during the year 1927-1928. Other organisations, notably transport bodies, provided the rest.

Besides these public and semi-public bodies, private persons were far from inactive during this period. They spent 328 million roubles on housing and constructed 7,500 million square metres of floor space. This activity might have been expected to result in a large increase in the supply of dwellings available, and an improvement in the conditions of life of the town population, and particularly of the workers. This was by no means the case ; on the contrary, the average floor space per head fell from 6 square metres in 1923-1924 to 5.5 square metres in 1927-1928.

The following data give a general idea of the housing situation at the end of 1928. While the minimum average floor space per head had been fixed by legislation at 9 square metres, the average available for the whole town population was only 5.9 square metres. The workers in the towns were even worse off, for their average was only 4.9 square metres, and among these again textile workers had only 4.15 and miners only 3.7 square

¹ The population of Moscow increased from 2 million at the general census at the end of 1926 to about 2.8 million in 1931.

metres per head. Salaried employees were in a slightly better position, administrative employees having 7.65 and commercial employees 6.6 square metres per head.

These are, of course, only general averages, and there were in fact considerable variations between town and town, district and district. At the end of 1928 there was 8.7 square metres of floor space per head in Leningrad, 5.7 in Moscow, 5.8 in the Ukraine—where the devastation of the civil war had been particularly widespread and terrible—and 5.3 in the central industrial region. Cases may be quoted, above all in the Donetz basin, where overcrowding defied all description.

As far as the well-being of the population is concerned, the whole period since the Revolution had thus brought with it only a long series of disappointments. Even the authority of the Government had suffered. Since 1923 the leaders of the nation had been calling for spontaneous activity on the part not only of official bodies and co-operative societies, but also of private persons. Private enterprise had here built up a firm position on the urgency of the demand, while it was almost helpless not only in industry, but also in wholesale and to a certain extent in retail trading. The proportion of private capital invested in real estate and house building remained large. In October 1927 74 million, or 47 per cent., of the 157 million square metres of floor space in the towns was owned by the municipal authorities. There were wide variations in the proportion from town to town. In Leningrad, for instance, 98.5 per cent. of the population lived in municipal dwellings, and in Moscow 92.9 per cent. On the contrary, 60 per cent. of the population in the Ukraine and 80 per cent. in the central industrial region lived in privately owned houses. In all, slightly under half the workers had to deal with private landlords. This situation is even more clearly seen when the industrial districts outside the great cities are included.

In addition, a large proportion of the publicly-owned buildings were leased out and re-let. In Moscow, for instance, of the dwellings owned by the municipality (92.3 per cent. of the total) 16.4 per cent. were occupied by administrative offices or undertakings, 5.8 per cent. by municipal services, and 0.8 per cent. by co-operative societies; the remainder were leased.

These figures show the importance of private capital in the housing question, and there is no doubt that in spite of legislation and municipal regulations the working classes were obliged to

accept the conditions laid down by private landlords. This was one of the first considerations which led those responsible for housing policy to aim at a thorough reform. Moreover, it had soon become obvious that while private builders had built a great deal, their work had usually taken the form of uncomfortable dwellings and they had done nothing to change the old methods of building. Their houses were certainly much cheaper than those built by official bodies or co-operative societies, but it was considered that the type provided by them could not satisfy a population which was inclined to adopt a higher standard of life. Building, since its resumption about 1923-1924, had in fact aimed only at meeting the current needs of a rapidly increasing population. Dwelling houses were put in a fit state for habitation and more were built, but there was no method or policy to govern the whole. Indeed, up to a quite recent period, coinciding roughly with the beginning of the Five-Year Plan for economic development, the attempts made to solve the housing problem had no specially original features.

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The problem assumed much larger proportions after the adoption of the general principles for the industrialisation of the country laid down in detail in the Five-Year Plan. The Five-Year Plan for the economic development of the U.S.S.R. involves a large measure of industrial expansion, and consequently the construction of many entirely new industrial undertakings and the extension, in some cases very considerable, of those already in being. It was obvious that in order to exploit these new undertakings much labour would be needed, with the inevitable result of a large increase in the population of the industrial areas. This was the main question that arose at the beginning of the Five-Year Plan. Very soon, however, the spread of collectivisation in agriculture and the creation of enormous State farms made it equally necessary to provide for a future semi-urban concentration of the agricultural population.

Although the authors of the Five-Year Plan were not very clear as to what form this urban concentration should take, they did in any case contemplate a vigorous revival of house building. Taking into account the natural increase of the urban population and the influx of fresh labour, they tried to forecast

the amount of building that would have to be done between 1 October 1928 and 1 October 1933. Basing their calculations on an average individual allowance of floor-space rising from 5.7 square metres in 1928 to 6.9 square metres in 1933, they estimated the total floor space to be constructed at 62 million square metres, including allowances for demolition and reconstruction. The total cost was estimated at more than 5,000 million roubles.

Such was the economic aspect of the Five-Year Plan in respect of housing. Compared with the activity of other countries in the same sphere the task thus set does not appear to be of unprecedented magnitude. In Great Britain (England and Wales), for instance, about a million dwellings were built between 1925 and 1928. Although the total floor space cannot be accurately stated, it may be estimated at not less than 700 to 800 million square feet (the minimum regulations for new buildings being from 550 to 950 square feet per dwelling), or in round figures 70 million square metres; that is to say, appreciably more than the amount provided under the Five-Year Plan, but for a total population one-fourth that of Russia, and an urban population of about the same size. The proportion in Germany is slightly different, with 1,300,000 dwellings built for a population of 64 million, of whom 36 million are town dwellers. Generally speaking, therefore, and taking account of town building only, the task set by the Five-Year Plan is far from surpassing the results achieved in Western countries during an equal period.

The Five-Year Plan is, however, something more than a mere programme for the speeding-up of building and production. One of its most important features is the promotion of socialisation or collectivisation. This tendency was especially strong in industry and commerce during the first stages of the Plan, whereas in agriculture collectivisation was introduced suddenly during its second year. House-building itself was planned in very great detail. Of the 62 million square metres of floor space to be built, 42 million were to be placed at the disposal of the public authorities. Undertakings, in particular, which in 1928 had 10 million square metres of floor space available to house their workers, are under orders to have 23 million square metres in 1933. Of the sum of about 5,000 million roubles invested in housing, about 1,500 million are to be provided by industry, 1,300 million by co-operative housing societies, 400 million by

transport bodies, 800 million by the municipalities, and rather less than 1,000 million by private persons.

The authors of the Five-Year Plan thus estimated that by 1933 80 per cent. of the urban workers would be housed in State dwellings, a fact which in itself clearly demonstrates the change in the Soviet housing policy. Further, besides laying down these principles for the improvement of housing conditions in existing towns, active steps were taken to build housing accommodation in the neighbourhood of the large undertakings already in course of construction, or provided for by the Five-Year Plan. The construction of these new settlements provoked lively currents of opinion and called forth schemes of the greatest possible interest.

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At this period Russian architects were, of course, not unacquainted with the house-building and town-planning work already accomplished in other countries, and in the discussions that now began it is easy to trace the influence of experiments carried out elsewhere in the building of satellite cities and "lineal cities" (ribbon development). The most important modern architects were already well known in Russia and some of them had been consulted in connection with the construction of the large commercial and industrial units. But although great interest was taken in their ideas, it very soon became evident that these could not be applied blindly to building under Russian conditions. Thus Le Corbusier's plans for modern cities were turned down as bearing the stamp of a capitalist conception of the ideal town. The idea of garden cities and "lineal cities" suffered the same fate, though in a modified form.

The following remarks may serve to give some idea of the heat and earnestness of the discussions that centred around this problem. In 1929 a new term was coined which was destined to enjoy immense popularity: everybody became enthusiastic over the building of "socialist towns". Once this expression had obtained currency it was impossible to replace it by any other; and yet, as soon as the construction of these socialist towns was seriously taken in hand, it at once became evident that the expression itself did not at all describe what was meant. The guiding principle for the creation of new communities was the elimination of all inequalities between the conditions of town

and country life ; it was in fact generally agreed that all producers, whether industrial or agricultural, should enjoy similar housing conditions. Instead therefore of building " towns " in the accepted and traditional sense of the word, what was really contemplated was the creation of new communities which should facilitate production and ensure the welfare of the producers.

Around this fundamental principle two schools of opinion grew up among architects and the leaders of the building movement : that of the " urbanists ", whose most eminent representative was at first Sabsovich, and that of the " anti-urbanists ", led by Okhitovich and Ginsburg. The former proposed to found compact settlements, either industrial or agricultural, consisting of 50,000 to 60,000 persons. They did not offer any suggestion as to the fate of existing towns, beyond proposing that inhabited areas similar to satellite towns should be laid out around them. The anti-urbanists put forward proposals which, although seemingly more radical, were immediately opposed as being tainted with the bourgeois spirit. They recommended that the whole population of the Soviet Union should be evenly distributed along the main lines of communication, each adult having his own standardised and mass-produced house. As for existing towns, they considered, consistently with their theory, that these should be eliminated and that Moscow, for instance, should become a huge park in which only a certain number of monuments would be preserved.

After discussions lasting for a comparatively short period, the principle of compact settlements won the day, the reasons for its adoption being that it offered the only possible method of giving a direct communistic stamp to the daily life of the people and creating approximately equal living conditions for both industrial and agricultural workers.

It was immediately decided that this general principle should be applied in the house-building operations which were to accompany the creation of new industrial and agricultural units. Within the limits of the Five-Year Plan, it was estimated, though without any detailed specification, that 200 industrial and 1,000 agricultural towns would have to be built, some of the former being intended to correspond to a number of gigantic new undertakings. The building of dwellings for the workers employed on the construction of the Dnieper dam was begun in

1929 ; but this was only a first step, since a whole series of chemical and metal plants were to be added later to the electric power station. In order to prevent the concentration in the neighbouring town of Zaporojie (formerly Alexandrovsk) of the workers employed in these new undertakings, the new town of Bolshoe Zaporojie (Great Zaporojie) was planned. At Rostov on the Don a whole workers' quarter was in course of construction around the huge agricultural equipment factory near the town. At the end of 1929 the construction of the new industrial quarters of Stalingrad (formerly Tsaritsyn) at the mouth of the Volga and of the metal works around Magnitogorsk (the Magnetic Mountain) in the Urals was taken in hand. Soon afterwards it was decided to speed up the Five-Year Plan, mainly in respect of the metal industries, and it became necessary to create a certain number of industrial communities in the region of the Siberian basin of Kuznetsk. Besides these towns, which were ultimately to reach considerable dimensions, it was also proposed to develop new quarters at Chelialinsk, Nijni Novgorod (round the Ford motor works there), Kharkov, where a tractor works was shortly to be opened, Saratov on the Volga, and Bobriki in the lignite basin of the Moscow district. At the end of 1930 a special plan was drawn up for thirteen new towns in the Donetz basin ; other towns planned included Taguil in the Urals, Khibin in the North, etc. Plans were also made for a considerable development, amounting almost to complete reconstruction, of Mariupol on the Black Sea, Murmansk on the Arctic Ocean, and Chardjui in Turkmenistan. Many of the new towns were to be built in districts which, if not entirely deserted, were at least very sparsely populated ; but great attention was also paid to the building of new quarters of Moscow, notably around the Amo motor works which was intended to grow to ten times its size, and at Leningrad.

Some idea of the extent of the proposed building operations may be obtained from the fact that for the year 1929-1930 alone a sum of 37 million roubles was allotted for the building of the three new towns of Dzerjinsk in the province of Nijni-Novgorod (begun in 1928), Magnitogorsk, and Stalingrad. The total cost of all similar building work during the same year was estimated at between 50 and 60 million roubles. The sums involved were to be very much larger in 1931, for which year the Central Communal Bank budgeted for 480 million roubles, of which 284 mil-

lion were to be spent on house building, 63 million on municipal services, 91 million on welfare and education, and 41 million on other services. It was expected, moreover, that this expenditure would continue to rise rapidly in subsequent years. The cost of the thirteen new towns and of the rebuilding of three existing towns in the Donetz basin was estimated at 2,100 million roubles, and that of the electric power station on the Dnieper, together with the new town of Bolshoe Zaporojie, at nearly 500 million roubles, of which 225 million would be spent up to 1933. The 1931 estimate for the new quarters of Stalingrad was 128 million roubles, an increase of over 100,000 inhabitants (from 205,000 at the beginning of 1930 to 310,000 at the beginning of 1932) being expected in two years, while the total cost was estimated at between 700 and 800 million roubles. The construction of the new town of Kharkov was expected to cost 280 million roubles.

These figures show the vast extent of the problem. In the face of such gigantic schemes it soon appeared essential to draw up, at least in outline, a general plan for all this building activity. At the end of 1929 and the beginning of 1930 exchanges of views took place, notably at the Gosplan, at the Communist Academy, and among architects.

During the previous discussions the anti-urbanists had been defeated in that the principle of compact settlements had been adopted as the ultimate solution of the problem. But their arguments in favour of spreading the population over a wider area in order to combat the evil effects of city life were not without effect, and as soon as schemes for the construction of socialist towns came to be seriously considered it was generally agreed that the system of crowding the population into a small area without sufficient air or open spaces must be abandoned. Thus the idea of the garden city again made its appearance, although it was interpreted differently on different sides. One group was of opinion that the garden city, without degenerating into a group of cottages which were considered as the very symbol of the bourgeois spirit, should nevertheless be composed of fairly small houses; another advocated the construction of large buildings, or rather blocks of buildings, on the height of which opinions varied, separated by broad open spaces.

On another point agreement was more or less unanimous. It was generally recognised that the new towns were not to be built round a stronghold like those of the past, or round a

commercial or financial quarter like modern and contemporary cities, but that the heart of the town should be the centre of production. Here again we find the idea of the functional town, which according to circumstances might be either an industrial town proper for housing the workers, together with their families, employed in a new centre of industrial production, or an agricultural town to accommodate the workers on a number of agricultural units or large farms supplied by a single agricultural equipment centre. The distinction between industrial and agricultural towns was blurred by the fact that every industrial town was to have its own market gardens, if not its farms, while every agricultural town was to contain undertakings for the primary transformation of agricultural produce besides its agricultural equipment centre.

The suggestions as to how this functional town should be laid out are also coloured by the views of the anti-urbanists, who had proposed to spread the population along the main lines of communication. Some of the urbanists tended rather to envisage the city of the future as radiating outwards from the industrial centre, a view which undoubtedly represented a reaction against the structure of existing towns, in which the works and factories are situated in the suburbs. Others, again, stressed the impossibility of forecasting the right size for the town and pointed out the difficulty of making the necessary provision for its extension if the industrial quarter were to occupy the centre of a town of the radial type; they therefore proposed a solution on the lines of the "lineal city", with the industrial and residential quarters on either side of a main road. Finally, suggestions were also put forward for a kind of constellation of residential towns grouped around the industrial centre. This however was opposed on the ground that it would require the construction of an expensive network of roads which would take a long time to complete, and that the lack of any rapid means of transport would be a serious disadvantage for a long time to come. The plan was also considered politically inadvisable, since small towns of this kind would have no relations with an administrative and intellectual centre.

Another point which was accepted in principle was that of the collectivisation of daily life. It was here that the greatest differences of opinion arose. As was pointed out by the more reasonable, it was extremely difficult to plan communal

arrangements for a way of life which it was quite impossible to forecast. Everything bearing the stamp of a narrow individualism might very well be eliminated without going to the length, as the bolder spirits advocated, of introducing complete collectivisation in every part of daily life, with the sole exception of sleep.¹

As far as family life in this city of the future was concerned, there was unanimous agreement that it should give way to a broader social life, and that women should be released from the majority of their household duties. The idea of the complete separation of children from the rest of their family was hotly opposed on many sides, and so was the total elimination of family meals; but in spite of all these differences of opinion as to what should constitute the basic unit of town life, there was general agreement that the age of the family house was past, and that in the residential block, whatever its size, each individual should have at his disposal, though not always for his individual use, everything necessary for his daily life and even for his social life.

In regard to the general services of town life as a whole, the most varied schemes were put forward. In the first place, the plans for municipal buildings varied according to the size of the community. This was quite comprehensible; but the public services for different towns of the same size were also sometimes planned along entirely different lines. Some towns were to have general heating, others a gas supply, and others refuse-burning plants. The proposed "cultural" services consisted in one town of a printing works and publishing house, and in another of a boy scout club and a museum, while the administrative institutions in one town were to consist of a prison, a branch of the State Bank, and a savings bank.

During the period of preliminary discussion, in fact, imagination was given free rein, and there emerged a number of plans for "phalansteries", but on a Russian scale.

The bolder spirits were already contemplating the erection in the near future of sky-scrapers 25 to 30 stories high, separated

¹ This last point of view was embodied in a scheme for houses composed of a series of tiny rooms, in which each individual was to sleep separately, while spending all the rest of his time with the community. It was objected to this that solitude was necessary as much for reflection as for sleep, while among the intellectual it was also pointed out that without making a fetish of books each individual should be able to have a small private library in his own room, instead of always having to go to the public libraries.

by open spaces at least 500 metres square. Each of these buildings, which was to contain accommodation for several thousand persons, would include a restaurant, shops, a laundry, post and telegraph office, medical service, day nursery and kindergarten, halls for meetings, clubs, etc. Four or five of these buildings thus erected round a large open space would have a school in the middle of this space, the rest of which was to be occupied by sports grounds and sanitary establishments. A group of this kind would in itself constitute a town. It was claimed that this scheme would provide each individual with what he most required, namely, proximity to nature and immediate contact with his fellows. Within the building itself each person was to have an absolutely sound-proof room with thick walls and a double door, and with a telephone, a wireless set, a bathroom, and a lavatory.

Among the most fully worked-out schemes was that proposed by the architect Zelenko, which met with almost universal approval.¹ This architect proposed that the socialist town should not be of the radial type, but should be constructed on the lineal system along the line of transport. The industrial quarter was to be situated on one side of the line of transport; the materials to be transported were to follow a kind of conveyor, starting from the arrival station and passing on in turn to the transforming factories, the warehouses, and the departure station. Technical schools for young persons and adults, with experimental laboratories for inventions, lecture rooms, libraries, etc., were to be set up near the industrial quarter, and close by were to be the municipal industrial services—slaughter-houses, canning factories, bakeries, refrigerating plants, laundries, clothing repair workrooms, etc. Market gardens and stock-breeding farms were also to be established in the neighbourhood.

The residential part of the town, which was planned in straight lines, was to be separated from the industrial quarter by large open spaces. The houses were to be arranged in blocks, accommodating 2,000 to 3,000 people. Thus a town of 50,000 inhabitants would be five to six kilometres long and two to three kilometres wide. All the public establishments—including administrative offices, trade union buildings, concert rooms, theatre, hospitals, scientific institutions—were to be placed on the

¹ Similar schemes may be found in : N. A. MILJUTIN : *Problema Stroitel'stva socialističeskikh gorodov* (The problem of building socialist towns). Moscow, 1930.

side of the dwelling houses furthest from the industrial quarter, so that the workers might call at their homes on their way to the quarter containing the public services.

In the houses, to be several stories high, the individual sleeping rooms, arranged in communicating pairs, were to be on the upper floors, while the public rooms were to occupy the first and second stories. The restaurant and the kitchen, which would be used simply to heat up the food prepared in the central factory kitchen, were to be on the ground floor. The public rooms were to include "information rooms" and meeting rooms.

As regards the children, Zelenko proposed that every block containing 2,000 to 3,000 persons should in the first place have a day nursery for children under three years of age. These nurseries might either take full charge of the children or look after them for a few hours each day, but in any case factory crèches should as far as possible be abolished. For children under school age, i. e. up to about six years old, kindergartens were to be set up, while for children between six and fifteen there would be schools and gymnasia within each block.

Zelenko's plans for agricultural towns were slightly different. They were to cover an area of between 500 and 600 square kilometres, with a population of about 20,000, which was to be concentrated round farms situated some distance from the agricultural equipment centre. The only people living on the large farms themselves would be a few workers to look after the livestock. The hospitals and entertainment halls were to be built in the centre of this area.

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In spite of all the details contributed by these various schemes, no absolutely final solution was evolved. The only definite idea that emerged from the manifold discussions was that some preliminary experiments would have to be made before all these new towns could be built. Even so, it was considered quite possible that measures which seemed adequate for the time being would no longer meet the situation a few years later, and that a complete reconstruction might again prove necessary when general economic conditions had been transformed by the successful execution of the Five-Year Plan.

The question, however, was urgent, for it was absolutely essential to build housing accommodation around the new

industrial units such as Dnieprostroij, Novokuznetsk and Novo-Taguil, on each of which tens of thousands of workers were already employed. In most cases temporary accommodation or hutments had been set up, but permanent buildings had been begun at certain places, entailing an expense quite out of proportion to the value of its results.¹ Work on the new town of Dzerjinsk, for instance, which, as already stated, was begun in 1928, had so far been quite haphazard and without method, without any town-planning scheme, and even without any architectural plan for the houses themselves. At a conference held at the Gosplan, a delegate of the Commissariat of the Interior of the R.S.F.S.R. who had been sent to inspect the building of Dzerjinsk stated that three-story houses containing 250 dwellings with kitchens and private heating arrangements were being built there, although there was a central kitchen close by. Each undertaking had constructed its separate water supply and drainage system, with the result that the drains of one discharged where another obtained its water supply. One undertaking settled its workers at an average density of 7 per hectare, whereas the regulation average was 300. Three clubs for 600 people and a public hall for 600 people had already been built, although the total population was still only 1,100. Finally, the houses had been built directly to leeward of the factories.

All these discussions and the unfortunate experiments already made demonstrated the necessity for bringing some sort of order into building operations.

The first step taken in this direction was a legislative measure which appeared at the beginning of 1930 and related to the building of the industrial sector of Stalingrad. In this measure the Council of People's Commissars of the R.S.F.S.R. stated that, owing to lack of co-ordination between the various services and the economic organisations, the methods hitherto adopted in

¹ The financial basis of the plans under consideration was very questionable. The cost of one of the schemes submitted to the Gosplan for the construction of a town of 100,000 inhabitants was estimated at 247 million roubles, 140 for the communal houses, hotels, children's quarters, and schools, 68 for the municipal services, 13 for the distributive services, 18 for education, 5 for public health, and 3 for administration, or a total cost of about 2,500 roubles per inhabitant. The statistics available indicated that on an average existing buildings represented a sum of about 900 roubles per inhabitant. Other schemes also gave about the same figures. That of the architect Zelenko, for instance, estimated the cost of building a socialist town at 1,040 roubles per inhabitant. The estimate was 1,170 roubles for the new town of Kuznetsk, 1,101 roubles for Prokopievsk, and 992 for Shcheglovsk.

constructing this sector had proved inadequate to ensure its methodical development and to harmonise all the economic elements concerned. It was therefore proposed to take over the construction of this industrial sector as a field for experiments in socialist large-scale building, in which all the elements of production and cultural and welfare services should be rationally co-ordinated; and with this object a special department was to be set up for the construction of the socialist towns of the Stalingrad sector. This department—afterwards known as the “Stalingradstroij”—was to be attached to the Executive Committee of the Lower Volga district; it was to be directly responsible for all the building operations—housing, and municipal, sanitary, educational, cultural, administrative, commercial, and co-operative services—and was at the same time to co-ordinate the industrial building operations and transport arrangements in the sector. By this decision all the Stalingrad extension work was placed under the direction of a single body.¹

The decision taken in respect of Stalingrad was only local in scope; not only a general plan, but even any kind of general guiding principles were still entirely lacking. During the summer of 1930, however, the Council of People's Commissars of the R.S.F.S.R. published an Order defining the functions of the Municipal Services Department of the Commissariat of the Interior, to which were assigned the duties of co-ordinating and supervising all house and municipal building operations throughout the territory of the R.S.F.S.R.²

The second step in this process of reorganisation consisted in an Order issued by the Central Committee of the Communist Party on 16 May 1930, which was destined to have a great influence on the development of building operations in general.

¹ Although the necessity for concentrating the whole of the works under a single authority was recognised, three alternative forms of concentration were admitted. In Stalingrad all house building, with its accessories (communal and sanitary services, etc.), was to be within the province of the Stalingradstroij, which was not, however, to be responsible for actual industrial building. At Magnitogorsk in the Urals, on the other hand, the town was to be built by the same body as the metallurgical plant; while in the Ukraine it was proposed to set up special bodies which would not manage the building operations themselves, but would simply ensure the co-ordination of the various organisations responsible for them.

² This process of reorganisation has been more marked since the abolition of the Commissariat of the Interior and the creation of a Commissariat of Municipal Economy on 21 July 1931. In order to ensure federal control a Federal Council for Municipal Economy, attached to the Central Executive Committee of the U.S.S.R., was also set up in November 1931.

Briefly outlined, this document began by condemning "the fantastic and highly dangerous attempts of certain comrades (Larin, Sabsovich, etc.) to clear at one bound all the obstacles in the way of the socialisation of daily life", and went on to stress the financial difficulties in the way of the immediate execution of schemes as enthusiastic as many of those recently put forward for the transformation of existing towns and the construction of new ones at the expense of the State.

The Central Committee nevertheless instructed the Council of People's Commissars to lay down a number of guiding principles for the establishment of workers' communities and housing accommodation, taking into consideration the development of communal services for the workers' daily life (laundries, baths, factory kitchens, arrangements for children, restaurants, etc.).

In laying out new towns, adequate space was to be left between the residential and industrial sections, and provision made for means of access and communication, water supply, electric light, baths, laundries, public restaurants, establishments for children, clubs, schools, and sanitary services. The new buildings should be as perfect as possible from the hygienic standpoint. At the same time no effort should be spared to keep down building costs.

The population itself was to be encouraged to help in financing these building operations as far as possible, mainly through the medium of housing co-operative societies.

* * *

Apart from Dzerjinsk, which was begun in 1928, and the new quarters added to large cities such as Moscow, Leningrad, Kharkov, etc., the building of the new settlements did not really begin until the end of 1930. It is therefore much too early to hazard even a rough judgment on the results. To the present writer's knowledge, no general survey of the subject has yet been published. A number of more or less acid criticisms of the methods followed in erecting these new buildings have however appeared from time to time in the Press. Those relating to Dzerjinsk have already been noted. Recent enquiries into the position at Cheliabinsk have revealed that overcrowding among the workers there is still present to a particularly alarming degree. At Zaporozje numerous complaints have been made as to the organisation of the communal restaurants. It

is, however, impossible to draw any definite conclusions from all these criticisms. In a report submitted to the Central Committee of the Communist Party in June 1931, Kaganovich stressed both the difficulties encountered and the mistakes made in the new buildings, but most of the examples he cites refer only to Moscow. The resolutions adopted by the Committee after hearing his report merely reaffirm, with additional details on certain points, the principles laid down in May 1930 and March 1931.

It might be expected that the accounts of recent visitors to Russia would throw some light on this subject, but this is very rarely the case. The most interesting of such impressions are those contained in a book by Knickerbocker entitled *The Soviet Five-Year Plan*, although these too are only fragmentary and do not go further than the end of 1930. In his description of the big motor-car factory at Nijni Novgorod he sketches shortly the situation as regards workers' housing:

The new Nijni lies fifteen miles away on the banks of the Oka. . . . Here, where five months ago there were at most a few families of peasants, are to-day 10,000 men at work erecting a plant that by the end of 1932 is intended to turn out 140,000 cars a year. They are building dwellings for a model city of 50,000. . . . "The First Model Communist City", as they call it, is going up at a speed that would do credit to a much less backward country than Russia . . . and enough permanent dwellings have been erected in the new city to accommodate several thousand of the working force. The rest of the ten thousand building trades workers are living in a city of barracks. They have their communal restaurants, where the food is considerably better than any to be had in Moscow, their movies and theatre, clubs and reading-rooms, typical of construction camps all over Russia. Beyond the plant lies the site of the new city, ideally situated near the river, with parks stretching down to its banks, and designed to provide the maximum of comfort and convenience. The blocks of apartment houses are arranged in such a manner that to go from any part of the dwelling centre to any other part, or thence to the restaurant and schools, it will not be necessary to cross a street. This was done for the children. Besides the dwellings there are being erected a "House of the Soviets", a "Palace of Culture", a museum, a polyclinic and hospital, hotel, shops, garbage disposal plant, bathing-beach, bakery, laundry, garage, railroad station, cold-storage plant, slaughter-house, sport stadium, police and fire-stations, a huge factory kitchen, schools and a crematorium. Within the housing group are communal clubs, nurseries and a kindergarten. Of all this there have so far been completed two rows of apartment blocks. By December 1931 the city is supposed to be complete for 25,000 inhabitants, and by December 1932 it must be ready to accommodate 50,000.¹

¹ Pp. 30 and 33-34.

At Azbest in the Urals the town building operations seem to have made more progress.

When the "Azbesters" go home they find decent lodging in the rows of brand-new apartment houses which stretch out fanwise from the lake in the centre of the town. An Azbest family has a minimum of one room. Muscovites consider themselves lucky if they have only two families to a room. A hospital with 120 beds and a polyclinic with 60 beds, with a staff of physicians, have been installed. . . . Their "House of Culture" has just been completed at a cost of 1,200,000 roubles.¹

At Stalingrad, in the new quarter built round the tractor factory :

There are 22,000 workers in the factory and construction, 7,000 of them on production. Their living conditions would be considered luxurious in Moscow. 7,000 are housed in brand-new apartment buildings, of which there are 100 in the plant complex, each containing 40 apartments of three rooms each. The rest, chiefly construction workers, are living in barracks.²

At Baku the prosperity of the oil industry has made it possible to do things on a larger scale.

No city in the Soviet Union has such extensive complexes of modern apartment houses, all for oil workers or employees of Azneft.³ I drove over twenty miles of perfect asphalt pavement through mile after mile of new settlements, snowy white, the architecture neo-Oriental.⁴

At Zaporozhie, near the dam being built across the Dnieper, building work has already begun.

At the same time there is being planned a city of dwellings to be occupied by 150,000 workers by 1933, at first along the Dnieper bank. When the contemplated expansion to a population of 500,000 comes, the city will be extended to the island of Hortiza.⁵

The most revealing documents are undoubtedly photographs, since much of the description contained in books by travellers like Knickerbocker refers to what so far exists on paper only.⁶

¹ P. 48. ² P. 92. ³ The Azerbadjan Oil Syndicate. ⁴ P. 122. ⁵ P. 164.

⁶ This point may be illustrated by comparing Knickerbocker's account of Nijni Novgorod with the following information, summarised from *Trood* for 17 October 1931 :

House building in the Autostroij district still lags considerably behind housing requirements. In October 1931 7,000 workers were already at work in the factory, and there will be 12,000 by 1 January 1932. No provision has yet been made for housing these 5,000 new workers. Building will have to be speeded up considerably in 1932, since by the end of that year there will be 19,000 workers and employees, and the total population will be 58,000. According to the plans, 172,000 square metres of floor space should have been ready by 1 January 1932. But in October 1931 only 30 of the 60 stone houses planned, with a total floor space of 150,000 square meters, and only 28 of 50 semi-permanent houses, had been finished. Hence recourse to sectional houses became necessary. This work, which was ordered in

The photographs in Knickerbocker's book give a better idea of what the new town of Nijni Novgorod is really like. Its buildings do not appear to have much in common with the Zelenko plan. As far as can be judged from the photographs, which show houses built up as far as the second story only, they seem to be somewhat of the barrack type, and not very far apart. They certainly do not fulfil the requirements laid down by the 1930 Congress of Modern Architects, which recommended that houses should be very high and built far apart in order to give free passage to sun and air.¹

Of much greater interest is the photograph of Baku given in the same book. The blocks of houses are built around central courtyards, which probably contain communal buildings. These houses, which are all white and consist of two stories and a raised ground floor, are extremely simple but without rigid uniformity. The roads are wide, and though the whole layout is symmetrical the effect is not monotonous. A photograph of the new town in the Dnieprostroij district, published in the review *Krasnaia Niva*,² also shows long rows of three-story houses with occasional balconies, built round small buildings that probably contain the communal arrangements. The general effect is rather dull.

Some idea of the great variety of the house building work accomplished may be obtained from the remarkable photographs published by the propaganda picture review, *L'U. R. S. S. en construction*. In the first place, illustrations are given of the

August 1931, had to be carried out in great haste with materials that left much to be desired and with damp wood. Owing to lack of bricks many of the houses now being built will probably not be finished before the spring of 1932.

None of the cultural institutions have yet made much progress. A cinema, two schools and various other establishments were planned for 1932, but so far only the industrial school has been decided upon. Only one workers' club has been opened. The broadcasting station has not yet been set up; the information house in which it is to be installed will not be built until 1932.

The baths and laundries which were to have been opened on 1 November 1931 are not yet finished, while the water supply and canalisation work have not even been begun.

¹ This impression is borne out by a photograph published in *Trood* for 17 October 1931 showing the architect's model for the workers' settlements to be built round the Autostroij motor-car factory. It shows a series of buildings separated by large open spaces, wider than the rows of buildings themselves. Each row consists of parallel groups of five three-story houses. The houses in each group are separated from each other by a space roughly equal to the height of the buildings. Between each group of five houses there runs a road or avenue. Parallel to the rows of houses are a number of small buildings, probably the communal establishments, and gardens.

² No. 23, 1931.

temporary buildings. At Shcherbinovka some tiny one-story houses have been built, surrounded by a shabby wooden fence.¹ At Tkvika in Abkhazia (Transcaucasia), near the new coal mines, there is almost nothing but a series of hutments strongly reminiscent of war-time concentration camps. At Krasno-Uralsk the huts are better arranged and more widely spaced.

The two-story houses at Ridder (Altai) give an effect of solidity and are separated by airy spaces.² At Rostov on the Don, near the agricultural machinery factory, the residential quarter contains two-story houses with some resemblance to the German workers' cities.³ In the Ussachevskia quarter of Moscow and at Malaia Bronnaia, imposing five-story houses are shown grouped in large blocks. The "communal houses" in the Zamoskvorietchie quarter, which are built round a pleasant square, are an interesting feature.⁴ At Kuznetskstroij, although the building operations are not very far advanced, it is already possible to trace the plan of a town of the lineal type.

One of the most interesting examples is furnished by White Russia. The photograph of Gomel brings out the contrast between the old quarter filled with hovels and an impressive new row of four-story buildings.

Finally, a typical agricultural city is shown in the second "Grain Trust" of the Northern Caucasus. A number of three-story buildings, widely spaced, are shown on a completely bare piece of land which is presumably still awaiting development. The squares of the "Gigant" State farm have already been laid out; a garden of the French type is shown beside a block of lowish houses.

As regards public buildings considerable efforts are being made.⁵ At Magnitogorsk⁶ may be seen the site of the theatre and the technical school, the latter a vast edifice in course of

¹ No. 3, 1931. ² No. 12, 1930. ³ Nos. 10-11, 1930. ⁴ Nos. 7-8, 1930.

⁵ This tendency is particularly strong as regards cultural institutions. An Order issued by the Council of People's Commissars of the R.S.F.S.R. on 26 October 1931 gives a schedule of the cultural institutions to be set up in the new communities. A specially detailed list is given for Magnitogorsk, including the construction in light materials before the end of 1931 of four industrial schools in the factory district and two in the coke-oven district, in addition to a stone-built industrial school in the town. Twelve temporary nurseries were also to be built in the factory district and eight kindergartens in the town. For the utilisation of the workers' spare time a metal-workers' club was planned, together with a cinema hall for sound films in the town and three theatre huts and three temporary cinema halls in the factory district. Finally, a library and lecture room and a technical school were also to be begun. (*Izvestia*, 29 Oct. 1931.)

⁶ No. 9, 1930.

construction. At Kramatorska, Briansk, and Gorlovka, in the great mining basins, impressive "palaces of culture" have been erected. Needless to say, the new quarters of Moscow are still more imposing, while at Kharkov the ambition has been to make the palace of industry and the trade union and co-operative buildings something quite exceptional.

* * *

It is impossible to see in all this activity anything more than the prelude to the fulfilment of a crying need. So far, the U.S.S.R. has concentrated all its energies on creating its industrial plant. It now stands on the threshold of a period which should logically be one of welfare, if its efforts to create an entire collective economy almost at a single stroke are to have any meaning at all. Of all the requisite conditions of welfare, housing is at present the one which is still farthest from being realised; yet it is obvious, and amply proved by the exodus of the miners from the Donetz Basin, that an appreciable improvement must take place in housing conditions, among others, if the workers are to be persuaded to settle far from the old urban centres or from the land on which they were brought up. Hence it is absolutely necessary for the success of the new industrial and agricultural units that they should be completed by comfortable residential quarters, a condition calling for exceptional activity in building. The information given above shows that so far the preparatory stage has hardly been passed. The plans laid down for 1932 provide for the doubling of building and town-planning operations.¹ But there are still two main obstacles to be surmounted before these plans can be carried out—lack of resources, both financial and material, on the one hand, and lack of technicians on the other.

As concerns the first, it has been seen that the Central Committee of the Communist Party took a firm stand against wasteful house building in 1930, and it has become still more firmly entrenched in this attitude since. As the U.S.S.R. has enormous timber reserves and wooden houses usually cost 30 per cent. less to build than brick, a vigorous campaign was launched

¹ It may be noted that Leningrad has been specially favoured in the plans for 1932. The main works contemplated comprise 1,200,000 square metres of floor space for housing, at a total cost of 140 million roubles. Besides this house-building work proper a total of 150 million roubles is estimated for the development of municipal services.

in 1931 in favour of the construction of houses, and especially wooden houses, by mass-production methods. Here too the Central Committee intervened, with an Order issued on 25 March 1931. A special organisation, the *Standartjilstroj*, was formed to supply the various contractors with the necessary building materials, and in particular with standard woodwork for building houses. This system was extensively applied in the Donetz basin and in the new Karaganda basin in Southern Siberia. Information on the supply of these materials is published regularly in the Press. It may be observed that the wooden houses in question are not mere cottages like the peasant "işbas", but may have as many as three stories and contain accommodation for several families.

Further, in order to solve the financial side of the problem it has been necessary to appeal to the people and persuade them to invest their savings in the co-operative building societies.¹ But in order to attract the workers' savings it was essential to avoid running counter to traditional habits. This in itself is sufficient to explain why in many cases dwellings were still built each with its own kitchen, lumber room, and cellar. Most of the workers' wives have in fact not yet got used to restaurant cooking. Rightly or wrongly, they regard the food provided as inadequate and above all much too expensive, similar complaints are made of all the communal services, such as laundries, heating, etc. In houses with no cellar or lumber room the workers complain that they can put nothing away for their own use and are obliged to go to a restaurant if they want even a cup of milk or a piece of bread.

In this direction there is still much to be done in the education of the individual. The Soviet leaders realise that this will be a slow process, and possible only if the collective arrangements are eventually accepted as more satisfactory than the old system, just as the collectivisation of agriculture could not make headway until the peasants had been convinced that collective farming yielded a larger return for a smaller expenditure of energy.

¹ A special tax was also levied in 1931 to promote the construction of workers' houses. This tax was payable in two instalments, in June and July respectively, and was extremely heavy. For assessment purposes taxpayers were divided into five groups, the first three comprising the workers proper, the fourth owners of buildings, and the fifth owners of commercial and industrial undertakings. Some idea of the magnitude of this tax may be obtained from the fact that persons in the fifth group with an income of more than 300 roubles a month had to pay 165 roubles *plus* 60 per cent. of the amount by which their income exceeded 300 roubles per month.

As concerns technicians, the difficulty is twofold. On the one hand, in this as in other spheres Soviet Russia suffers from a lack not only of skilled workers but above all of architects and clerks of works. Great difficulty is also experienced in reconciling the views of the architects concerned. This difficulty is well illustrated by the differences of opinion concerning even the sites for the new towns. Novosibirsk, for instance, was first planned on the left bank of the river ; work had already begun when it was decided to build it on the right bank, only to revert finally to the original scheme. For building operations as important as those of Magnitogorsk the final plans have not yet been drawn up. It is not surprising, therefore, that the help of foreign architects should have been enlisted, a possibility foreseen by the Order issued by the Commissariat of the Interior in September 1930. At the end of 1930 a group of well-known architects, under the leadership of Ernst May of Frankfurt, was called in to advise the Russian Government on the construction of its new towns.¹ The organisation in charge of the reconstruction of the old towns has also secured the services of some foreign architects.

Whatever may be the outcome of these combined technical and financial efforts, it is at least doubtful whether the results will be perceptible within the near future. The examples cited suggest that nothing that has yet been accomplished is likely to be very enlightening, at any rate for modern architects and town-planning experts. The most that can be hoped at present is that when the International Congress of Modern Architecture meets in Moscow in 1933 the Russian town-planning experts will be able to lay before their western colleagues, if not the complete realisation of their ideas, at least plans that are carefully worked out in full detail, with due regard for both social and economic considerations. This would represent an important step towards a rejuvenation of town-planning theories.

¹ Mr. Ernst May has published some account of his work in Russia in the *Frankfurter Zeitung*, and in a lecture he gave in Berlin in June 1931 which was printed in *Das Neue Frankfurt* (No. 7, 1931). The information given in these two papers hardly goes outside questions of method. In an article published in the U.S.S.R. (*Za Industrialisacju*, 2 Sept. 1931), however, he criticises somewhat severely the mistakes and exaggerations committed, particularly at Magnitogorsk and Novosibirsk. He appears to think that under the pressure of industrial construction the Russian town planning authorities are in danger of falling back on merely temporary solutions of the housing problem.