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PECULIARITIES OF MODERN URBANIZATION
AND INDUSTRIALIZATION OF THE PRODUCTION I/

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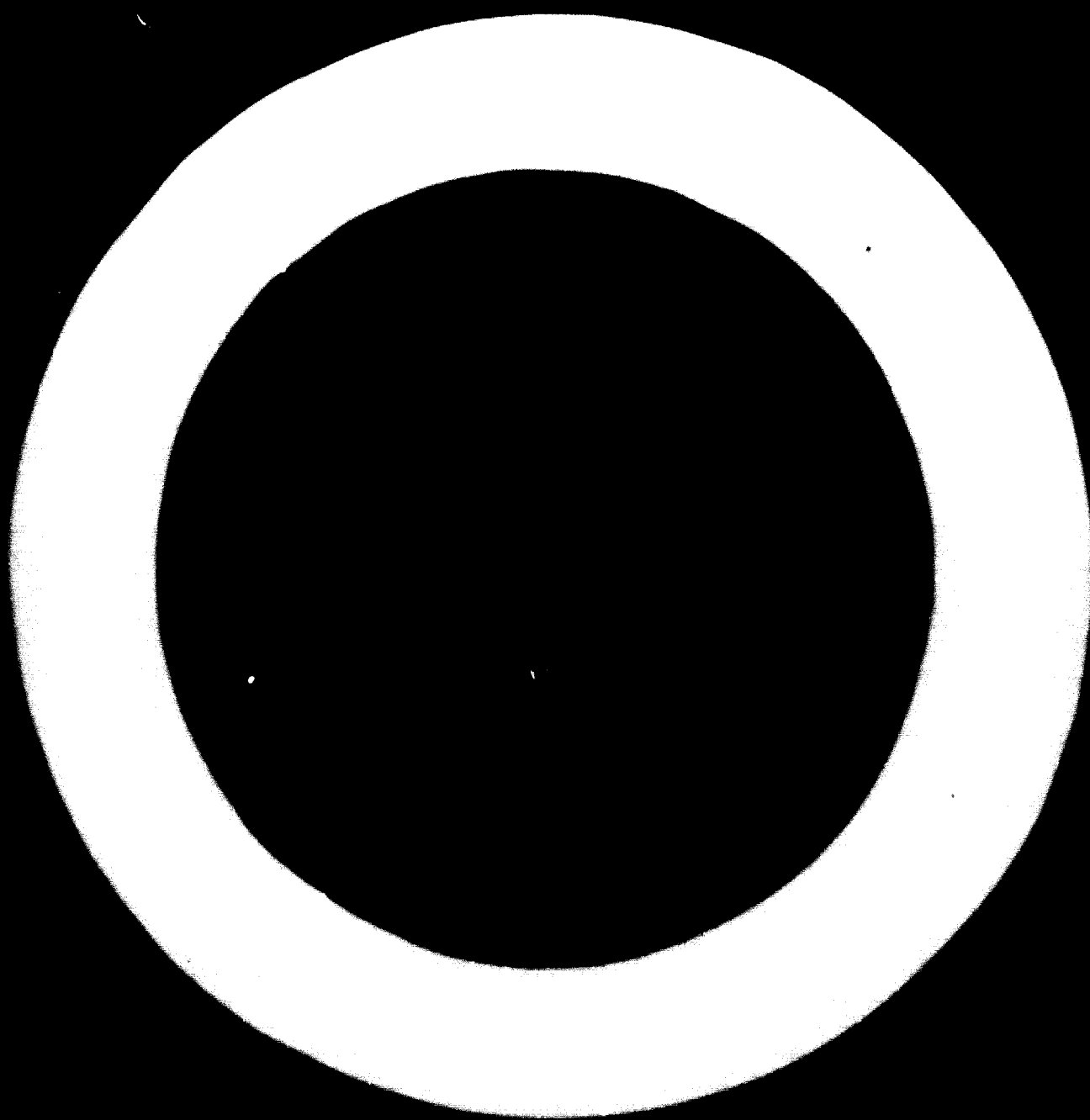
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The twentieth century is the century of urbanization, which is going more and more intensively and has enveloped practically all the world. The urban population is growing considerably more rapidly than rural one, and its share in the total world's population is rapidly increasing. According to the available estimates the settlements with the population of 5 thousand and more in 1900 concentrated 13 per cent of world's population, in 1950 and 1960 their share being 28 and more than 33 per cent respectively (1). At present the urban population is growing at least two times as rapidly as the world's population taken as a whole. The experts suppose that by 2000 more than a half of the total population of the world (i.e. more than 3 billion people) will be concentrated in urban centers. Thus the urban centers by 2000 will have more population than the whole of the world had in 1960.

The rapid growth of population, especially in the less developed countries, poses before the humanity a number of acute problems. One of them concerns the necessity of providing the growing population with the material wealth and first of all with food. Another problem, which also attracts a lot of attention, is connected with spatial location and distribution of population.

The latter problem may be viewed in different aspects, urbanization being the most important of them. The significance of urbanization is especially great because the industrial development, the industrialization and intensification of agriculture which are vital for the increase of foodstuff production, are closely connected with it.

... and the character of urbanization are determined by a complex of socio-economic and natural-historical factors. In its turn, the growth of urban population and of urban centers influences primarily the international and international division of labour, the formation of different types of economic regions.

When studying the spreading of the urban tenor of life, one should make a distinction between two aspects, which sometimes are confused being signified by a single term - urbanization. The first of the two aspects is the process of increase in the urban influence on the life of a country or an economic region. This process is generally reflected in the rates of growth of urban population, and further we shall call it urbanization. The second aspect - a degree of development of the urban life, the attained level of it, which can be expressed through the percentage of urban population and the degree of development of urban systems. This status, which is attained by a certain moment by urbanization, we shall call the level of urbanization.

Urbanization and the level of urbanization may be (and very often they are) significantly different. A low level of urbanization opens rather often broad possibilities for high rates of urbanization. This very case may be seen now in most of developing countries¹⁾. At the same time the approximation to the maximum

¹⁾ It is necessary to take into account the fact that in many countries, first of all those of Asia, Africa, Latin America there was historically formed the hypertrophic concentration of population and of economic activity in one or several main centers. In some of such countries the main centers contain more population than all other centers. In such urbanized (using the criterium of the percentage of urban population) country as Uruguay, the capital Montevideo accounts for 3/4 of total industrial production.

level of urbanization is connected inevitably with a sharp decrease in the rates of general urbanization or with almost a complete stoppage of it, as it takes place in several highly industrialized countries. But even the complete stabilization of the share of urban population is connected with a permanent absolute increase of its number.

When the level of urbanization is very high, almost all the increase of population is concentrated in urban centers as it takes place in England, the USA and some other developed countries, where the share of urban population attains 70 - 80 per cent. Moreover, the quality aspects of urbanization, such as the growth of economic influence of urban centers, the increase of their dimensions, the augmentation of population concentration in large urban centers accompanied by strengthening of the so-called "metropolitan" features in the general mode of life, by the penetration of some characteristic features of the urban tenor of life in the country, continue to strengthen and to develop in those cases when the percentage of urban population cannot, in essence, grow any more.

One of the most typical features of modern urbanization in industrialized countries is the formation of urban agglomerations and the rapid growth of "suburbanization", connected with both, the thriving of the suburban forms of population distribution and the absolute decrease of population in the central city of an agglomeration. The similar processes involve in an ever increasing degree the developing countries. Therefore, for correct determination of number (and share) of urban population and sizes of different urban centers the designation of the borders is of primary importance. Under capitalism, the broadening of the municipal

territory of an urban center, especially in the cases when this is connected with absorbing by a large center of adjacent smaller ones, enjoying formal independence, is connected with very great difficulties and is rarely achieved. As a result there is usually a gap between the administrative and the real borders of urban centers - a gap which may attain large dimensions and has a tendency to grow. Therefore when studying the urban centers it is very important to consider them in their real borders. In several countries this is taken into account by the statistical bodies. So, for example, in the USA for the towns with the population of more than 50 thousand there are published 3 ranks of data, corresponding to 3 different town borders:

- a) the administrative border;
- b) the border of "urbanized area", which includes all the territory of all-round build up (3);
- c) the SMSA border, which includes - besides the town (city)- the suburban zone (the countries closely related to the central city of SMSA). = *Standard Metropolitan Statistical Area*

The importance of such distinction is evident. For example, in 1960 212 SMSA designated by the Census Bureau of the USA (4), had the population of 113 million (63 per cent of the total population of the USA), the central cities of these SMSA having only 58 million (32 per cent)¹⁾.

The noted above distinction is of decisive importance for

¹⁾ During 1950-60 the population of all SMSA grew by 26,4 per cent (i.e. it was growing more rapidly than the country's total population, which showed an increase of 18.8 per cent). At the same time the population of the central cities of SMSA grew by 10.7 per cent, while the suburban zone showed an increase of 48.6 per cent. Redistribution of population in the agglomerations takes place in other countries, which are on different levels of development.

the correct determination of the population in different (especially large) cities. For example, in 1960 New York had a population of 7.8 million in the administrative borders and of almost 15 million in the real borders, Los Angeles - 2.5 and 6.7 million, Chicago - 3.5 and 7.8 million, Washington - 0.7 and 1.8 million, respectively. Such a gap may be seen in other countries - for example the corresponding figures for London were (in 1961) 3.2 and near 10 million, for Paris (in 1962) - 2.8 and 7.4 million, for Buenos Aires - 3.0 and 6.8 million; for Mexico - 2.8 and near to 5 million, for Ankara - 0.5 and 1.3 million (5).

Thus, when comparing the percentage of urban population in different countries and when grouping them according to their dimensions, it is rather important to obtain data concerning not only the population within the administrative borders but also the population within the real borders including the suburbs.

The growing concentration of people in urban centers is caused by a complex of socio-economic factors. For different levels of development and for different functional types of urban centers there are various dominating factor combinations. In industrialized countries, for example, on one of the stages of their development, the growth of industrial production served as a leading factor of urbanization. This factor is very important up to now for many developing countries ¹⁾, but in several countries of old industrialization it is now only of secondary importance, and the urban growth there is more and connected with the development of service industries - tertiary (trade, transportation, maintenance) and quaternary (such as science,

¹⁾ It is important to note here that in the majority of developing countries the rates of growth of urban population are much higher than the rates of increase of production in "urban" branches of industry.

education, training, administration, etc.). The industrial employment in such countries is growing slower than total population to say nothing of the urban one.

The scientific-technical revolution, which created conditions for rapid growth of the labour productivity in sectors of material production and at the same time increased the needs for expansion of scientific research and for highly skilled labour favoured the further decrease of the role of industry as a factor of urban development in industrialized countries (6). For example, in the USA, during the last 15 years the total number of persons employed in industry was rather stable, and its share in the total active population is continuously lowering.

The migration from rural to urban areas, caused by the lack of job opportunities and low levels of income, may be considered an important factor of urban growth, especially under conditions of developing countries.

The growth of urban population caused by both, its natural increase and migration from rural areas (to some extent - by incorporation of large rural settlements as towns) affects all the urban systems of a country or a region.

It is necessary to keep in mind that in industrialized countries and regions there were formed complicated urban systems with a definite hierarchy of centers of various scales and functions. The reconstruction of these systems is integrated with the changes in sectorial and territorial structure of economy, with its complication (7).

In the developing countries, especially in those possessing a considerable productive base, there also takes place the formation of urban systems, which are mainly located around the

largest centers in few leading regions of concentration of population and economic activity.

The rates and the character of development of urban centers of various scales and types, as well as the factors of this development are not the same. Certainly, the individual features of each specific urban center play an important role, but it is possible to observe certain common features which are inherent to the urban centers of each group. It is possible to subdivide roughly all the urban centers into three groups - namely:

- 1) Large cities (we attribute this term to urban centers with the population of 100000 or more) and urban agglomerations;
- 2) Existing medium or small towns;
- 3) New urban centers arising due to economic or other necessities.

The existing medium and small towns are subdivided into two categories:

- 1) self-dependent medium and small towns,
- 2) medium and small towns, which are the suburbs of a large city and are integrated in its agglomeration.

As a separate group only the centers of first category will be treated, because the centers of the second category, being dependent units, must be considered as parts of agglomerations.

In respect to the new urban centers it is necessary first of all to distinguish towns and settlements, which are built in old inhabited areas as a result of decentralization of production and dispersion of population, and the urban settlements which are being created in sparsely populated areas - areas of new development, mainly for the exploitation of their resources, - minerals, hydro-resources, wood, land. Among new urban centers

arising in the developed, sometimes densely populated regions it is possible to distinguish two types, namely:

a) Suburban settlements and towns-satellites, which are located within the formed urban agglomerations or in immediate proximity to them. These towns provide a certain decentralization of production and especially of population within a given agglomeration, and at the same time they reflect its expansion (including territorial one) and thus they lead towards the increase of concentration of production in agglomeration as a whole.

b) Self-dependent new urban settlements located beyond the limits of existing agglomerations. They are used very often as a site of location of the enterprises transferred from the old centers or newly created enterprises and subsidiaries. The creation of such centers leads to a certain dispersion of production within a given region, but on a country's scale it may provoke the increase of the region's share in the total production of the country.

The bulk of the increase of urban population in industrialized countries falls on large cities. So in the USA during 1950-60 the population of 212 SMSA grew by 23.5 million and in all other centers - by less than 5 million. Moreover, the population of 24 largest agglomerations (each of them in 1960 was inhabited by more than 1 million persons) grew by 12 million, thus these agglomerations absorbed more than 40 per cent of all increase of population (8).

The similar processes are going on in many other countries. As a result, the share of the world's population concentrated in large cities is growing rapidly: in 1900 it was 5.5 per cent, in 1950 - 12.5 per cent, in 1960 - nearly 20 per cent, and it is expected that in near future it will exceed 25 per cent. The number of cities-millionsires increased in all the world from

approximately 20 in 1900 to 130 in 1960, and the total number of cities with more than 100 thousand population exceeded 2 thousand. In Latin America, for example, there are more than 100 of such cities, in Africa - more than 70, in India (in 1965) - 111. The growth of large cities in developing countries has increased after achievement of independence, the growth of capitals being the most rapid. Such cities as Kinshasa, Algiers, Cairo, Casablanca, Jakarta, Rangoon, Lagos may serve as examples.

Large cities concentrate the major part of manufacturing. Their role in industrial production of industrialized countries is rather stable, however the role of industry in their own life, what can be illustrated by the percentage of labour force employed in manufacturing, is gradually lowering (10). Simultaneously, the scientific, educational and cultural functions of large urban agglomerations acquire greater importance, and in capitals there is a trend towards the increase of the role of administrative functions, which leads to the expansion of government employment. Large cities absorb a considerable number of immigrants from the rural areas, who very often are unable to find a job and join the army of unemployed.

The territory of large agglomerations is growing even faster than their population, what is directly connected with the process of suburbanization. The spreading agglomerations in countries possessing a dense urban network begin to ajoin one another, begin to accrete, forming immense urban superagglomerations extending over many hundreds of kilometers. These superagglomerations acquired in geographical literature the name of "megapolis". The greatest of them (the Megapolis proper, which was studied by J.Gottman (II) stretches approximately one thousand kilometers along the Atlantic Coast of the USA from the

nothern suburbs of Boston to the southern suburbs of Washington. It covers the territory of some 140 thousand sq. kilometers and has a population of some 40 million (1967), which continues to grow.

The similar urban formations (of smaller dimensions) are being formed in the USA (along the coast of the Great Lakes, in California), in several countries of Western Europe (Rhein-Rhur Region, Midland, the region of Paris, Randstadt Holland, etc.), in Japan, Argentine (Buenos-Aires-Rosario), etc.

The typical features of megalopolis are its stretched form (linear, treelike) and polycentral structure, which distinguish it from the "cumuli" superagglomerations of conventional type (2). Such a form and such a structure lead to a situation when the extension of urbanized territories and the spread of urban landscape are combined within a megalopolis with the existence of large areas of rural landscape (including the forested areas). The megalopolises include both, the areas of congestion and the relatively sparsely populated territories. But the latter ones are functionally linked with their urban centers, satisfying the various needs of their population (first of all the needs in short-term recreation).

In contrast to large cities the self-dependent medium and small towns of developed countries grow more slowly or even stagnate, although because of the complication of the system of settling the total number of them sometimes increases. In the United States the total number of towns with the population between 2.5 thousand and 49.9 thousand grew during the period of 1950-1960 from 3.3 thousand to 3.6 thousand. However the total population of them increased only by 6.5 per cent and its share

in total urban population of the USA reduced from 28.5 to 4.2 per cent (12, 13).

The towns of this category may be subdivided into three main groups. The first group is composed of towns, which are being drawn in the sphere of influence of large cities; gradually they become the suburbs of large cities or parts of the "urban regions". Such urban settlements usually have favourable perspectives for growth, as it is seen from the fact that the population of 1200 small towns of the USA, which were parts of suburban zones of large cities grew during the period between 1950 and 1960 by 90 per cent (9, 12).

Among the remaining medium and small towns a small group of settlements possessing the conditions for growth (the development of industry, the institutions of higher education, health-resorts, etc.) are distinguished. At a certain moment their population reaches 50 thousand and then they are classified as metropolitan centers. During the period of 1950-1960 the number of SMSA in the USA grew by 43, and between 1960 and 1966 - by 12.

The main part of medium and small towns does not grow or even loses population, which is unable to find jobs under the conditions of economic stagnation. In many countries the problems of medium and especially small towns have become critical (14, 15).

A particular case in modern process of urbanization which is connected with both the accelerated industrialization and the growth of existing agglomerations is represented by the creation of networks of new towns. They are primarily:

- 1) Networks of new towns in the populated areas of the industrialized countries, as a rule, in a relative proximity to urban agglomerations and large cities;

Networks of new towns and industrial settlements in undeveloped areas.

The widespread construction of towns-settlements in most of the industrialized countries is linked first of all with striving for elimination or weakening of some negative (from the strategic, social and political points of view) features of growing concentration of population and productive capacities in large cities and urban agglomerations. This striving has been directly reflected in governmental programs of decentralization of production (16), in the programs of subsidizing the construction of new towns (17), in direct participation of state bodies of many countries in creation of many new industrial, scientific and dwelling centers within the range of 50-100 kilometers from a certain urban agglomeration or an urban center.

In a majority of cases the creation of such new towns "in the shadow" of large urban agglomerations has led to the formation of a perfectly special type of preliminarily planned towns which have a relatively numerous population but exercise a restricted number of functions. The analysis has shown that in the major part of new towns created during the post-war period in industrialized countries the number of inhabitants surpassed within a short period (5-10 years) the level of 50-100 thousand¹⁾.

The development and settling of new territories plays an ever increasing role in the economic and political life of different countries. In the industrialized countries the development

1) Sometimes in the shadow of agglomerations there are also small towns located in comparative proximity to them. In these towns there are created new industries, and sometimes the enterprises are transferred here from the central cities. The formation of such new industrial centers is sometimes connected with the difficulties of providing the industry with raw-materials and energy, with high costs of land and labour force in large cities.

of new regions is connected very often with providing the existing industrial regions and centers with energy and raw-materials. In the developing countries the development of new regions is closely related to the widening of structure of industry, to the improving of its location. The latter is partly due to the existence of the necessity of definite reorientation of economy inland towards the internal markets.

Since development and settling of new regions belong to a number of relatively new and scantily explored processes, the problems related to them are dealt with in this report more thoroughly.

The creation of a network of new outpost towns which serve as a means of resource development in countries possessing the uninhabited territories reflects the process of extensive development of the economy of such countries. The scope and rates of this process may be illustrated by some facts. During the last twenty five years in such frontier ("new") regions of capitalist world as Northern and Western Canada, Northern, Central and Western Australia, Alaska, Greenland, Northern Scandinavia there created some 700 new towns and smaller settlements. During the same period some 500 new centers came into being in Northern and Eastern regions of the USSR (19).

A low degree of development of rich new regions in the period before the World War II may be explained by complexity and capital intensity of such measures. As a rule the development of frontier regions is connected with the overcoming of serious natural obstacles (the extremal temperatures, aridity or, on the contrary, excessive humidity of the climate, the irregularities of terrain, forestedness, marsh-riddenness, pests, etc.) because of which the civilization during the centuries ignored these vast and rich in resources territories.

Uninhabitedness, undevelopedness of new regions was first of all connected with the fact that the geographic frontiers of development were at the same time the frontiers of the profitable economic development. The rare finds of development were the testimonies of striving to exploit the richest resources, especially those of precious and rare metals. Therefore the periods of development of gold, fish, wood resources of new territories which took place mostly during the last decades of XIX century and at the very beginning of XX century had a character of "rushes". The resource development of new regions in the past was specialized as a rule in exploitation of one kind of natural resources, what under the conditions of "rushes" hampered the formation of economy which would be viable in future. A major part of "rushes" did not lead to a permanent settling of new territories. The slumps of Klondike, Australian and other rushes caused the appearance of ghost-towns, neglected roads and other "traces" of a hasty and rapacious resource development.

The modern stage of resource development of the frontier regions reflects the new era of the development of productive forces. The numerous quantitative changes in the development of world's economy and policy, the achievements of modern scientific-technical revolution, the introduction of the regulation and forecasting of the economic development into the practical use (in industrialized capitalist countries) signified the beginning of complex resource development. Since the undeveloped territories embrace some 1/3 of all the territory of the industrialized capitalist countries¹⁾ and more than a half of the territory of

1) The Northern and Western Canada - 7 million sq. kilometers, the Northern, Western and Central Australia - 6 million sq.km., Greenland - 2 million sq.km., Alaska - 1.5 million sq.km., Northern Scandinavia - 0.5 million sq.km.

the USSR, this process has become an important part of the development of the productive forces of the modern world.

In many developing countries the frontier regions occupy vast territories and therefore the development of them becomes nowadays an important component of the official economic programmes in different developing countries. In Mexico, for example, the programme of "a shift towards the Sea" which forces the development of southeast regions has been carried out since 1947 (20). Brazilians see the future of ~~their~~ homeland in the development of the riches of the Amazon Basin - a vast but sparsely populated territory. India's plans of development foresee the accelerated involving into economic use of the resources of the central regions, the Thar desert, the Piedmont of the Himalayas (21). The economic programmes of certain developing countries of Africa (UAR, Algeria, Tanzania, Nigeria, etc.) are also tied with the development of uninhabited arid and tropic territories of the continent. In many developing countries with complicated ethnic and linguistic composition the demands of nations inhabiting the undeveloped areas to accelerate the rates of resources development of these territories in order to eliminate their economic backwardness are an important factor stimulating the development of new regions. There is another goal which is to be achieved in developing countries - namely, that of reducing the demographic pressure and land hunger in overpopulated regions.

Although the problem of frontier regions development is most urgent for the developing countries the most ^{notable} sensible successes in this sphere of activity were achieved in the industrialized countries. In the latter ones the frontier regions oc-

- 2 -

occupy an important place in the territorial structure of economy, and food-stuffs and raw materials produced in these regions influence considerably the structure and geographic distribution of the world's trade.

Although the frontier regions development reflects the process of extensive development of economy it is characterized (in case of the industrialized countries) by intensive methods based on modern achievements of science and technology, the newest methods of production, the use of highly skilled labour and the employment of progressive systems of the interregional division of labour.

Participation of the frontier regions of the industrialized countries in intranational and international division of labour is usually based on high specialization in production of raw materials and semi-manufactured goods. High technico-economical characteristics of production achieved at the enterprises of the frontier regions must be considered as a result of introduction into production of the latest achievements of modern science and technology, complex mechanization and automation of production. However large capital investments which are vital for the implementation of modern methods of production pay for themselves only under the conditions of large scale of production, i.e. the high profitability of enterprises located in the frontier regions is closely connected with mass production. It is characteristic that many enterprises of the frontier regions from the very beginning of their existence were more oriented to external than to internal market. As a result, the relatively small (related to the urban centers of the developed regions of

the corresponding countries) towns of the frontier regions as, for example, Kitimat (aluminium), Schefferville (iron-ore concentrates) in Canada, Weipa (bauxite) in Australia, Glomfiord (chemical fertilizers) in Norway hold an important position not only in the national production of respective countries, but also in the total production of the capitalist world. In recent years such centers have begun to emerge in several regions of resource development in the African, Asian and Latin American countries (for example, in the vast zone of Guiana Highlands in Venezuela).

The sizes of towns and other settlements which are created in the frontier regions are closely tied with the economy of scale of the industrial enterprises under creation there. The creation of a new outpost town, the development of a certain new region is preceded by a large-scale and long-term works aimed at the technico-economical grounding of the new center construction, a scheme of the further development of an enterprise or a complex being elaborated from the very beginning. A most important role in the framework of such a scheme is played by the determination of interrelationship (estimated in quantitative terms) between: a) the resources available; b) the optimum size of an enterprise; c) the optimum size of a new center; d) the capacity of internal and external markets (both for a given moment and in perspective).

Development of a majority of new centers created in the frontier regions of industrialized countries is directly connected with the pace of modern technical revolution. The post-war technical revolution broadened the limits of profitability of

Investment in the resources of certain uninhabited regions, i.e. it broadened the limits of technical and economical possibilities of the frontier regions development. The new equipment in such regions acquires entirely new qualities. Due to extremal climatic conditions and general uninhabitedness of new regions, the labour costs (especially those of highly skilled labour) are considerably higher there than in populated areas, the increase of labour productivity with the help of new equipment and economy of scale acquires here an extremely great importance.

In the first place, new equipment and technology of production substitute in the frontier regions more costly (as compared with the populated areas) labour. Consequently the efficiency of using new equipment in these regions is much higher than in the populated ones. On the other hand, in certain cases the implementation of several post-war programmes of resource development would have been impossible or almost impossible without the use of new equipment. For example, the creation of many new mining centers in the Soviet Union, Canada and Western Australia is directly connected with a sharp increase in labour productivity, with a decrease in costs (by approximately 20 times) of geological survey which became possible due to invention of effective methods of aerophotomagnetic geological survey.

The main feature of the towns and industrial settlement which came into being during the post-war period is their relatively small size (5-10 thousand of population). For example

le, on the vast territory of the frontier regions of Western and Northern Canada only 3 from the total number of some 400 new centers (namely, Kitimat - 13 thousand, Prince - George - 17, Sept - IIs - 14 in 1966) had the population of more than 10 thousand. In fact, there has been formed a specific hierarchy in location of settlements, a hierarchy which is quite different from that in the populated regions of the industrialized countries. Usually there are no large cities with trading, distributing, cultural and administrative functions in the whole region or in a group of new resource towns. With rare exceptions (Edmonton in Western Canada, or Anchorage in Alaska) in the frontier regions there are no cities at all and the activity of all new centers is mainly based on services provided by large cities of the inhabited regions of corresponding countries. In Canada, the frontier regions are served from Montreal, Toronto, Vancouver; Alaska is served from Seattle, Greenland - from Copenhagen, Northern Sweden from Stockholm.

Since the processes of the frontier regions development is first of all connected with the involvement into the economic use of natural riches (new mineral deposits, woodlands, virgin lands, hydro-resources) more than half of some 700 new centres created in the frontier regions of the industrialized capitalist countries are represented by highly specialized resource towns. The practice has shown that the implementation of a major part of new programmes of industrial construction was preceded by scientific research which grounded the completion of production in the frontier regions. As a rule in new towns there are located only one or two highly specialized en-

terprises, i.e. the so-called "curtailed complexes" of production are implemented here.

The industrial character of the frontier regions development, the due regard to the mistakes which were made during the construction of the so-called "company towns" (i.e. the towns constructed by a company developing a certain region) and in the first place the severe competitions with the populated areas for highly skilled labour have conditioned certain important features of their build up and population formation. As distinct from the towns of "rush" periods a major part of centers created in the frontier regions during the post-war period had a preliminary elaborated build-up plans.

Usually the towns of this type were built on the base of several micro-regions united by a common center of the town and separated from the enterprises by a more or less wide green belt. The general build-up plans of many new centers prohibited the construction within the town's borders of houses that did not meet fixed standards. The latter circumstance helps to wage war on towns parasites - a phenomenon which is widespread in the regions of industrial resource development. They are a kind of "bidonvilles" - gathering of hovels, built of boxes and other building waste, which are inhabited by the poorest strata of population.

The post-war period of the frontier regions development in the industrialized countries is characterized by more or less successful solving of the problem of avoiding such "byproducts" of new resource development as ghost-towns. In

many cases during the period of construction the demand for labour is much more (sometimes ten times more) than the corresponding demand for highly automated enterprises after their putting into operations. On the other hand, the nidus-like character of development, the necessity of development of separate and sometimes small deposits makes it impractical to create here large and permanent towns and other settlements.

Therefore the so-called mobile camps adapted to be transferred to other regions has become rather widespread. Mobile camps are formed by using the well-known in this group of countries trailers.^{I/} Sometimes creation of mobile camps is combined with construction of multi-functional head-centers (in the central part of a rich in resources area). When using this system there is no need to construct permanent settlement near mines and logging camps, after the exhaustion of a deposit or a forested area the trailers are transferred towards another rich in resources site.

This system makes it profitable to exploit small-size but rich mineral deposits or woodlands without spending on the construction of special settlements and too distant transportation of labour. At the same time the inhabitants of mobile camps from the very beginning are provided with modern housing and all needed services. In some countries many different

I/ In some new regions of the USSR this type of build up was combined with the building of 4-floor prefabricated houses. The latter were specially designed for the new regions of the Soviet North, Siberia and Far East by the specialists of Gosstroy of the USSR.

kinds of trailers are produced (one-family lodgings, kitchens, laundries, dining-rooms, hospitals, offices, libraries, clubs, storehouses, etc.). The mobile camps make the development of the frontier regions more flexible and effective.

As a result of the noted above characteristics of new towns formed during the post-war period in uninhabited regions of the industrialized countries a relatively small increase in number of permanent residents of these unfavourable for living regions was accompanied by a substantial increase of their share in world's production of industrial and agricultural raw-materials.

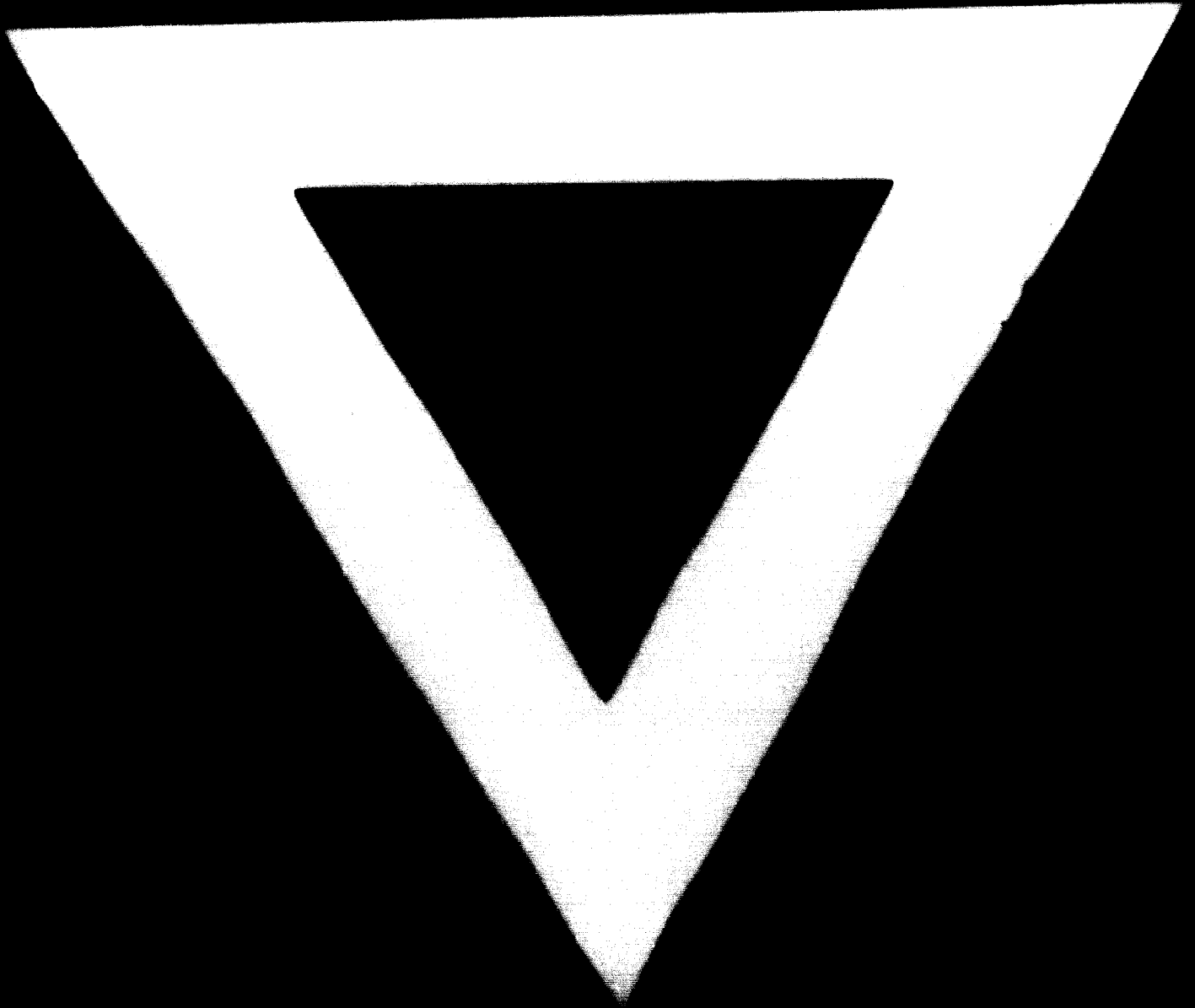
The trends of formation of a settlement network that mark the last years in both the industrialized and the developing countries allow to draw some conclusions in the field of "futuresology" of urbanization and location of production. The scientific-technical revolution and in the first place the progress in cargo transportation will lead to a more wide transfer of some economic functions from the regions with high costs of production to the regions with lower costs. Such a trend in economic development is one of the results of a tendency towards rising of the skilled labour costs, a tendency which has been marked after World War II. Due to the influence of this factor the production in the frontier regions which have higher labour costs seem to be more and more limited with the mining and processing of raw materials on a large automated enterprises located in relatively small settlements.

Simultaneously the further processing of raw materials will continue to be drawn towards the regions possessing the most favourable natural conditions where the vast urban regions will be formed. In these regions a high degree of urbanization will be combined with the existence of large vacant territories including parks, as it takes place now in several forming megolopolises. Just in these regions characterized by relatively low costs of production in the leading branches of modern manufacturing a major part of the world's population seems to be located in future.

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