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The Outlook for Regional Development in the Soviet Union

The natural inclination of most "area" scholars-not to mention others-is to become preoccupied with the personalities, institutions, and achievements of the dominant culture, through the nationally aggregated values and norms. The justification for this approach is a belief in the supposedly inexorable process of the "homogenization" of the national culture and the inevitability of greater centralized control as a result of the technology of mass communications and organization. But it is increasingly apparent that even in "developed" countries, such as the United States, Canada, and the United Kingdom-let alone Italy, Nigeria, or Pakistan-some of the more insistent and intractable "national" problems turn out to be basically regional in origin and character. At least as important in the long run as conflict of ethnic or religious origin is the increasingly familiar deepening of regional inequalities in the richer nations as a result of more perfect interregional competition, diffusion of information, and the high potential mobility of educated and affluent populations. At first glance the Soviet Union, with its traditional practice of centralized control over the bodies and souls of its citizens and the all-pervading pressure toward national coherence and uniformity, might appear more appropriate than most countries for study as a national system with national character and goals. Yet here, too, some of the more interesting and thorny problems facing the Soviet leaders and planners concerning the health and general viability of their country resolve themselves into essentially regional ones.

Thus, along with all the other valid ways to study a country—the historical, literary, social-science, and natural-science approaches—there is one that seems, oddly enough, to have been more neglected in the United States than in most other literate countries, including Russia. That is the geographical approach. In some sense it may be said to be basic to the whole enterprise of area studies—focused as it is explicitly and primarily on the character of the area itself. Since the term "geographical" is often considered, by historians and others, to be synonymous with "physical" ("At least geography does not change," it is sometimes asserted), it may be desirable to suggest to a general readership the nature of the geographical point of view. Essentially it is a kind of philosophy of man—in his role as an inhabitant and transformer of the earth. This approach requires comprehensive studies of regions and countries and of the factor of location—broadly interpreted—in human affairs. No undue stress is placed on natural phenomena in themselves, and still less on an assumption that they are necessarily the chief determinant of the location and nature of human settlement. The natural environment is seen as a complex of interacting physical and biological processes which not only has been pervasively humanized but is also constantly changing and thus presenting a fresh face to each generation.

It follows that concepts such as "environment," "location," "resources," and "regional potential"—that is, geographical values—have to be understood in relation to the perception, priorities, and technological capabilities of the inhabitants of a particular region at a particular time. Since the map of population is a cumulative expression of these geographical values as they have operated through time, a true understanding of the present geographical "systems" demands broad historical perspective as well. This discussion, therefore, whose chief aim is to evaluate the present and future regional problems, trends, and policies in the Soviet Union, will begin with a historical sketch, followed by an appraisal of the relative strength of various factors affecting current development and dilemmas. Of course, the vast range of the subject matter pertaining to this discussion necessitates a measure of gross simplification and selection which can be justified only on the ground of space limitations.

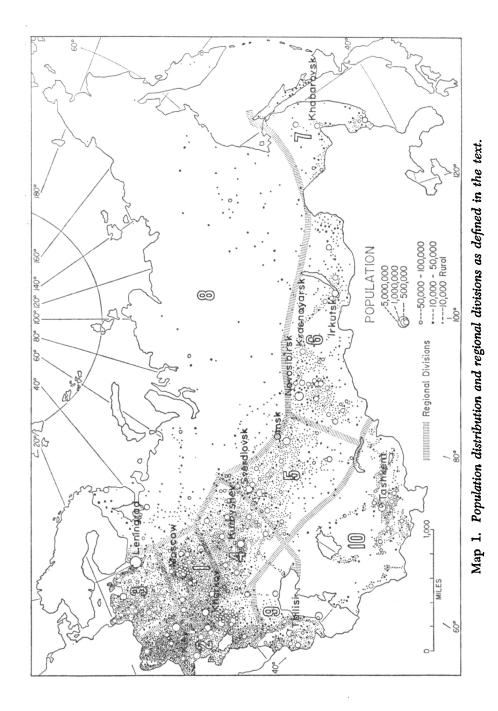
The Formation of Distinctive Regions

A difficult step in this kind of endeavor is to select those units which would seem to define most clearly the distinctive regions which those who are familiar with their functioning, past development, and present problems would recognize as sharpening the analytical focus.

It would certainly be easier to settle—as many regional geographers do for a given system of division, such as the natural zones (forest, steppe, etc.) or the Soviet scheme of administrative-economic regions at any particular time. In view of their significance in Russian history, the natural zones might seem to be appropriate divisions. But as cities and industry increasingly loom larger than agriculture, these zones become less and less coincident with the more important and dynamic human regions. Similarly, though some of the administrative units may serve reasonably well as divisions, many of them tend to be anachronistic and irrational rather than coherent functional regions. For instance, the republic and "economic region" of Kazakhstan disrupts the natural unity of the wheat and metal region of the West Siberian plains on the one hand and the irrigated oases of Middle Asia on the other, and its center is an empty desert. This geographical violence is done on ethnic grounds that are now quite invalid, since the Kazakhs are only a small minority in the northern half of the republic. Geographical reality is also distorted by cutting the Donbas coal and steel region in half and by including in the Soviet official regions some enormous underdeveloped areas (for example, in Siberia) along with permanently settled and developed areas. Thus, although superficially the use of the official regions has some clear statistical advantages, they are often vitiated by the distortion of reality inherent in the units themselves. This disability is, of course, by no means peculiar to the Soviet Union.

What we need is some reasonably refined articulation of the broad regions which are clearly part of the public consciousness, built up over the years of colonization—like New England, the South, or the Midwest in the United States. Their long-term character is a compound of a succession of cultures and technologies in a particular natural environment and location in relation to the changing significance of other regions. Stage of development in itself is an important component of regional character, combined with distinctive, current attributes such as population (especially city), growth rates, the extent of accessible resources, economic specialization, and ethnic characteristics.

On this basis, one can distinguish three primary "worlds" in the Soviet Union-European, Asian, and "North American"-representing as great a range of the major world cultural-geographical types as one can find in any country. The European world, bounded by the western frontier, the northern coniferous forest, and the Caucasus mountains and the Volga, whose agricultural and industrial foundations were laid down before the Soviet time, is still the core of the country. This area accounts for about half the nation's population and its agricultural and industrial production, and forms the established base of its broadly settled triangle, comparable in national significance to the northeastern quadrant of the United States. In contrast, the tapering end of this triangle. or "effective national territory," between the southward flowing reaches of the Volga (below Kazan) and Lake Baikal, wedged between the northern forest and the southern desert, bears-in terms of the total inhabited complex and its age and stage of development-close resemblance to parts of North America. The enormous and more or less empty expanses to the north of this settled strip, from the European North to the Soviet Far East, have their only meaningful analogues in northern Canada and Alaska. It may thus be observed that much the greater part of the Soviet territory classified traditionally as Asiatic Russia, with its overwhelmingly Slavic population and its still raw, pioneering character and characteristically extensive industrial and agricultural enterprises, has nothing in common with "Asia," if that word is taken to mean anything beyond an arbitrarily defined expanse of land. It may also be noted that China, over the past decade, has vigorously denied the Soviet Union's claim to be an Asian country, conceding only that the Russians have been "conquerors of Asian peoples."



Be that as it may, there is a third "world" of the Soviet Union, which can justifiably be characterized as Asian because of its ethnic distinctiveness, its common colonial history at the hands of the Russians, and the age and density of its settlements. This comprises the Transcaucasian and Middle Asian republics (including southern but not northern Kazakhstan), which are separated from the Russo-Siberian world by the Caucasus ranges and the Kazakh desert. Despite legitimate objections to dubbing the Georgians and Armenians "Asian," the common denominators of the whole of this southern fringe of peoples (which has been called the "Soviet Middle East"), compared with the Russians, are obvious enough to mark them off as a truly distinctive "world" of the Soviet Union.

In many respects the first and second worlds, the European and the "American," or "western and eastern regions" in common Soviet parlance, together comprise the vital "effective national territory." They have a certain complementarity, for the east is a vast reserve of natural resources and the west has the more favorable long-term assets of population concentration and accessibility to the whole Soviet bloc market. They are also competitive in the sense of giving rise to a perennial tug of war between the "European" and "Siberian" lobbies among the planners, where ideology and economics, the long and the short run, and many other imponderables contend. The third, southern "world" is patently more dispensable and contributes much less to the national economy than either of the other two. However, as a region of ethnic minorities with a disproportionately high rate of population increase at a time of impending national labor shortage, and as an area that increasingly attracts Russian immigration, apparently because of its subtropical climate, quite apart from its specialized agricultural role, it is not only an interesting "world" but potentially a crucial one for the Soviet Union.

Ten Subregions. These primary "worlds" of the Soviet Union have been further divided into regions which embody—at least to this observer—a certain coherence and distinctiveness in terms of the cumulative results, to date, of the organization of space and a particular environment, expressed in the patterns of population, economic activity, and circulation. These characteristics have been discussed in some detail elsewhere,¹ and space here forbids anything more than the merest sketch of the regions (numbered on map 1) so that they can be referred to in the discussion of regional policy later in this article.

The European world has three components—the Moscow region (no. 1), the Greater Ukraine (no. 2), and the Baltic region (no. 3)—each basically different from the other two. Poor in natural resources, the Moscow region's coherence and importance stem from its early establishment of power at the

1. David Hooson, The Soviet Union: People and Regions (Belmont, Calif., 1968).

hub of the river systems of European Russia, and the subsequent growth of the empire. In contrast to the Moscow region, whose poor and transitional natural endowments are overlain by the unifying power of the national metropolis, the Greater Ukraine (including the lower Don and Kuban lowland as well as Moldavia) is physically homogeneous—almost all black earth (*chernozem*)— and rich in a variety of industrial resources and productive activities. It is clearly the region most nearly indispensable to the Soviet Union and conversely the only one comparable in population and potential to the great nation-states of Western Europe.

The Baltic region, including Leningrad and Belorussia as well as the three Baltic republics, much more closely resembles the Moscow region than the Ukraine in its paucity of natural resources. Since the Revolution, with the diminishing importance of St. Petersburg, the shrinking of international trade, the strong national emphasis on heavy industry and interior development, and the interwar truncating of the western frontier of the Soviet Union, the region has suffered a severe decline in national importance. The recent industrial renaissance, coupled with a resurgence of nationalism, has moderated the decline, but a basic change probably has to await a wholehearted Soviet plunge into the international economy and the world of consumerism.

The Volga-Baikal zone—the viable, contributing portion of the vast "eastern regions" and the chief growth and reception area of the 1940s and 1950s, now containing a quarter of the Soviet population—can be divided into three regions. First, the one between the Middle Volga and the Urals (no. 4), which was something of a backwater before World War II, has been transformed into the chief oil-producing region of the country, in addition to producing natural gas and hydroelectric power, and is an important center of growth industries such as petrochemicals and automobiles. It encompasses the main east-west connecting links, as well as the chief Soviet river route, and has become the hub of a network of oil and gas pipelines running throughout the "effective national territory." Moreover, the center of gravity of the national population lies in this region.

Between the crest of the Urals and the Ob River (no. 5), and the northern forests and the southern deserts, is a region with two dominant elements in its landscape and economy. One is the extraordinary variety and richness of metal and mineral objects and the industries based on them, both on the eastern flank of the Urals and spread out across the Siberian plains. This area, the major destination of the great Siberian migration of the late nineteenth and early twentieth centuries,² has also become the great breadbasket reserve of the Soviet Union. The final phase of colonization was the extravagant Virgin Lands project of the late 1950s (mostly in this region). A recent addition to

2. See Donald W. Treadgold, The Great Siberian Migration (Princeton, 1957).

the region's economic life is the refining of oil brought in from beyond the area's northern edge and piped in from the Volga fields. Gas is also being piped in from Middle Asia for the Ural steel furnaces.

At the furthest reaches of the inhabited triangle, in Central Siberia (no. 6), from the Ob River to beyond Lake Baikal, is the region which seems to contain the richest store of accessible energy in the country. The black-coal mining of the Kuznetsk basin, developed mostly in connection with the resuscitation of the Ural steel industries in the 1930s, has been followed in the last decade or two by extensive and economical open-pit brown-coal operations near Krasnoyarsk and the construction of giant hydroelectric stations on the upper Yenisey and Angara rivers. Although these operations have transformed the industrial resource base and potential of the region, most of the area is beyond the range of the better farmland, is a long way from the main markets, and has serious problems of labor recruitment. These disadvantages raise doubts about whether this frontier region has "taken off" to self-sustaining, permanent growth.

Such doubts are compounded in the case of the Soviet Far East (no. 7). Its isolation from the mainstream of the Soviet population is extreme, and its loneliness has been accentuated by the freezing of Sino-Soviet relations. Much depends on the attitude—still equivocal in practical terms—of Japan toward trade and development in the area. At present fish is its only important contribution to the Soviet national market, and except for timber no nationally important land resources have been developed. Self-sufficiency at least seems called for, but is by no means attained. The natural environment is difficult, even if somewhat less so than the vast Northlands.

The North (no. 8), covering almost half of the Soviet area but containing only 2 percent of its population, is by definition a negative zone from the human standpoint. Its southern boundary coincides in general with the northern limit of permanent and continuous settlement. In this area, as in any other part of the world, the reasons for establishing industries or exploiting natural resources far from an agricultural base, in a difficult environment and with high-cost labor, have to be compelling. The gold and diamonds of Yakutia and the nickel of Norilsk, as well as the new reserves of oil and gas in the Ob basin, apparently offer such compelling reasons, at least for the present. It was mainly the North that filled the coffers of early Novgorod and Moscow, and today it is still a considerable latent asset—unpopulated though it is—as a reserve bank, a strategic insulator, and an integral part of the national image.

Although Transcaucasia and Middle Asia, together with the Far East, share the experience of having been under Russian control only since the nineteenth century, they have quite divergent assets and liabilities. As late as World War II the fate of all Russia depended on the oil of Baku and other essential products of Caucasia (no. 9), but this region is now more or less dispensable in terms of physical resources of vital national importance. Its present assets and liabilities can be seen as stemming from more basic factors. Nowhere else in the Soviet Union are the patterns of nature and man so complex. The area's mountainous character has long disrupted communications and unity. Ethnically it is a microcosm of Eurasia, and the latent fires of nationalism are at least as intense there as anywhere else in the USSR. But its scenic and historico-ethnic variety and richness, coupled with a relatively mild and sunny climate, provide the essential ingredients for lucrative tourism on a national and international scale, as well as a magnet for internal migration, as national living standards rise. This may well prove to be its chief national role.

The desert and oasis lands of Middle Asia (Turkestan) (no. 10) are the home of the most isolated group of people of any size in the Soviet Union, surrounded by hostile neighbors and exhibiting many features of a colonial economy and society. The chief surplus products, such as cotton and natural gas, are shipped out of the region to be used in Russia proper rather than locally. Though the area's isolation is a barrier, its historical monuments and the sunshine are attracting growing numbers of tourists. But nationalism must be accounted a potential threat to the Soviet authorities, and the disproportionately high natural increase of the population (relatively rural and immobile as it is), even in the face of national labor shortages, would give rise to apprehensions even if China were not next door.

General Factors in Soviet Regional Development

The excuse for taking time to define and attempt a characterization of the regional units used in this discussion (though by any measure these thumbnail sketches are impossibly brief) is that not all of them are common currency. Yet it is maintained throughout that regional analysis will be bedeviled from the outset if it is locked into units that are meaningless, vague, or actually distorting. The scheme used here is designed to embody geographical value judgments about the changing relative importance, significant links, and character differences between the various parts of this enormous country. It should be reiterated that such regional units are inevitably neither self-contained nor permanent, but only tools of analysis, to aid—like the historian's periodization—in recognizing essences or cores, with no pretensions of precision at the boundaries. Since the ultimate and most valid unit today (apart from the world itself) is the sovereign state, a brief attempt will be made to evaluate on a national scale, but using the regional units as appropriate templates, certain factors basic to regional development policy.

Regional Development in the Soviet Union

Stabilization of the Agricultural Frontier. Apart from limited schemes for irrigation or drainage or subsidized projects for special purposes, it seems clear that the agricultural oecumene has been essentially marked out and stabilized for the foreseeable future, in broad adjustment to the severe limits of climate and soil, and that intensification of investment in the already established optimum areas should account for most of the future increases in production. The extraordinary Virgin Lands plow-up campaign of the late 1950s, when some ninety million acres were upturned, may be regarded as the high-water mark of the long process of Russian agricultural colonization. In fact, like the reaction in the United States to the painful overextensions of the Dust Bowl era, there is evidence in the Soviet Union of a perceptible ebbing of the tide. Even after the Virgin Lands campaign, little more than one-tenth of the total Soviet area is cultivated, although in absolute terms this is the largest area under cultivation in any country. Two-thirds of the cultivated land is on black earth, to which the Russians had little access until the eighteenth century. Its axis stretches from the Ukraine to Central Siberia, but the soil productivity (and the accompanying climate) is decidedly more favorable in the former. Since long-term industrial and urban concentrations all over the world tend to be closely tied to the agricultural belts, the present "climax" situation in the USSR (with respect to the frontier) and the differential land qualities are bound to exercise an important and continuing influence on overall regional development.

Dispersal of the Accessible Industrial Resource Base. Following at one remove the gradual infiltration of agricultural settlement toward the south and east, the development of energy and other industrial resources has been equally striking over the past century and particularly since World War II. This growth is closely related to the current dilemmas of Soviet development policy. The exploitation in the late nineteenth century of the coking coal of the Donets basin and the oil of Baku signaled the beginning of modern Russian fuel production, and as late as the German invasion of 1941 these two areas accounted for a vulnerable two-thirds of the national energy output. The greatest changes have occurred in the last two decades, not only in total energy output but also in the structure of the energy "mix" and in the geographical decentralization of output. In 1950 coal accounted for (a completely outmoded) two-thirds of the total Soviet energy output, whereas oil and gas together now account for nearly the same proportion of a vastly increased total output. The chief location of this oil development has been the Volga-Ural region, which now produces two-thirds of the total supply and is much better located than Baku. But the emphasis is shifting, in a relative sense, to the newer fields in Western Siberia. The sixties have also seen the construction of massive hydro-stations in Central Siberia and extensive opencast coal operations, as well as the extraction of natural gas in Northern Siberia and Middle Asia. Although developments have also continued apace in south European Russia, notably the Donbas, the net effect has been to spread the contributing Soviet energy base much more equally along an axis from the Donbas through the Volga and Western Siberia to Lake Baikal, throughout the length of the "effective national territory." Together with a parallel dispersal of raw-material exploitation, the details of which cannot be gone into here,³ these developments have presented the Soviet industrial planners not only with much more flexibility but also with more acute dilemmas than they had in the early years of the discussions of the Ural-Kuzbas Combine.⁴

Problems of Distance and Accessibility. The grossly overloaded Soviet transport system has frequently proved to be the main bottleneck in industrial development. The railroads still haul about two-thirds of the national tonmileage, although this is down from over four-fifths in 1950, and they are carrying thirty times as much as they did in 1913, with only double the track mileage. Unlike most of the advanced countries of the world, where railroads are closing down, in the Soviet Union the railroad building still goes on apace, mostly in the region between the Urals and Lake Baikal, in connection with mineral or energy exploitation. At the same time the country has developed in the last decade or so a network of oil and gas pipelines, mostly along the Ukraine-Baikal axis or feeding into it. One obvious way to transfer energy from the Central Siberian surplus electricity grid to the consuming European grid would be by high-voltage transmission lines. The fact that this project has long been planned but is still not completed reveals the uncertainty there is about the competitiveness of the various types of energy and modes of transfer and the indecision over whether to promote large industrial complexes at the energy sources or nearer the main markets.

Distribution of the Population. The population map (map 1) not only summarizes the cumulative geographical values conferred upon a country over time, but also provides a measure of two of the most influential factors of production—manpower and the market. Rather more than half the population is found in European Russia west of the Volga and north of the Caucasus, or two-thirds to the west of the Ural crest and north of the Turkish border. The center of gravity of the national population is found near Kuibyshev on

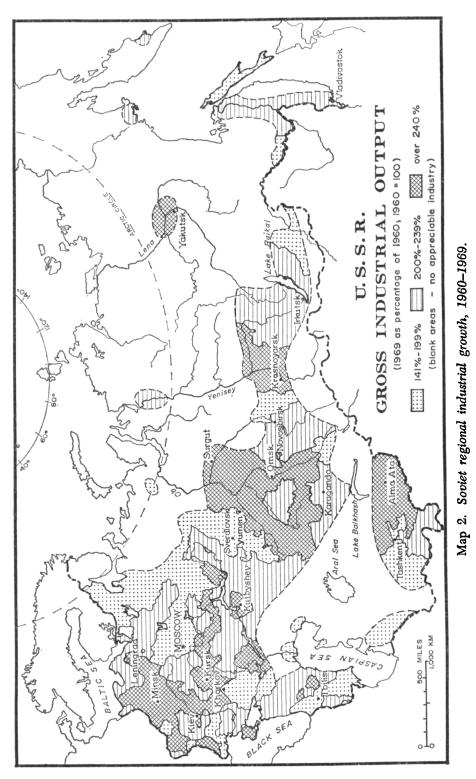
^{3.} A great deal of detail on this is found in Theodore Shabad, Basic Industrial Resources of the USSR (New York, 1969), with up-dating in the monthly journal Soviet Geography: Review and Translation (New York).

^{4.} See Franklyn D. Holzman, "The Soviet Ural-Kuznetsk Combine: A Study in Investment Criteria and Industrialization Policies," *Quarterly Journal of Economics*, 71, no. 3 (August 1957): 368-405.

the middle Volga (or near Kharkov in the Ukraine, if the whole of the Soviet bloc is considered). All this suggests the continuing strength of the European core both in population and in political centrality.

Nevertheless, it should be remembered that a substantial easterly displacement of the population has been the most distinctive geographical phenomenon of this century. During the half-century before 1960 the Volga-Baikal zone, defined above, showed a net gain of some twenty million inhabitants, or about double the net gain made by the European core to the west. No doubt the various catastrophes of that period were mainly responsible, but the scale is still remarkable, considering that the European core had about four times the population of Volga-Baikal in 1910 and had added more than four times as many people as Volga-Baikal had in the previous half-century. Over half of the cities (population of over fifty thousand) and all the really large ones, which doubled in population between 1939 and 1959, were situated in the Volga-Baikal zone. There is a rather uncanny parallel here with the pattern of city growth in the United States during this same period. Some three-fifths of U.S. cities of over fifty thousand whose population doubled between 1940 and 1960 were west of the Mississippi. It is of some interest that in no other comparable previous period had these vast "new" lands claimed a majority of the boom cities of either Russia or America. Although one can easily overstrain the parallel, it has been interesting to watch the two giant superstates of the "frontier" come of age geographically, as it were, rather more closely in time than one might have expected. Although the net easterly movement has not been in evidence for a decade or more, a permanent and significant extension in that direction was effected, and it now has to be reckoned with in: decisions on regional development.

End of the Great Migrations. Over the past decade, and most probably two, the evidence points to the emergence of a relatively undramatic and indecisive "steady-state" in Soviet regional development. If this is so, and if it lasts, it will indicate the attainment of a mature and unfamiliar situation in the experience of the Russian Empire and the Soviet Union. For centuries the Russians—like inhabitants of other expansive "frontier" countries—have been very conscious of the reality, as well as the folklore, of a persistent movement of their people in one direction. The most significant of these movements was the final and thoroughgoing colonization of the long-coveted European blackearth areas in the eighteenth and nineteenth centuries. By the early eighteenth century, despite the exciting victories and adventurous journeys of the two previous centuries, about two-thirds of the population was still crowded into the relatively poor mixed forest area of the Volga-Oka region, and almost all the others were fairly recent infiltrators into parts of the neighboring

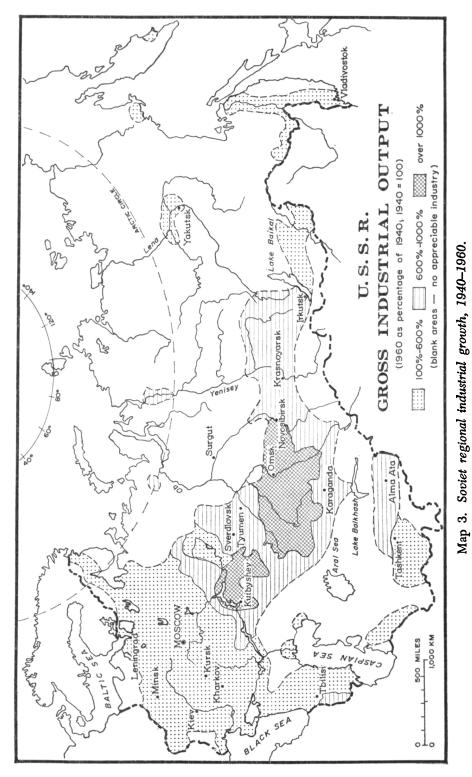


wooded steppe. By the third quarter of the nineteenth century, however, even before the development of the southern heavy-industry base, about two-thirds of the Slavic population was in the European black-earth region south of the Oka and north of the Caucasus. From the 1880s the dominant direction of settlement was an easterly one, to the "open spaces" beyond the Volga. The pressure of migration was enough to induce the Trans-Siberian Railway to cross the continent, thus creating the framework for much of the new development of the Soviet period. Although the easterly movement had probably ceased to be dominant by the 1950s (the Virgin Lands campaign was perhaps its swan song), it had by then developed persistent ideological overtones which are still frequently heard in the planning councils.

The Record of the Sixties

Analysis of the regional growth of both industry and population since 1959 does indeed confirm-most strikingly in contrast to the previous two decades-the end of the easterly course of national migration (see maps). Yet it does not bear out intimations, which have gained currency lately, that there has been an actual ebbing of the tide. True, it has been a somewhat becalmed period. But although a state of equilibrium prevails regarding broad east-west comparisons, one can detect significant intraregional variations (map 2). For instance, the slowest industrial growth is found in the older industrial regions (largely coal and steel areas) of both east and west, such as the Moscow industrial district, the Donets basin, the Urals, and the Kuznetsk basin, as well as some of the non-Russian republics, such as Georgia and Uzbekistan. Conversely, well above average industrial growth rates are found in very different and widely separated groupings: (1) the labor-rich and traditionally agricultural western marchlands, such as Belorussia, Moldavia, Lithuania, and the crowded black-earth belt of the northern Ukraine, and (2) an extensive resource-rich area of Siberia, based on the new oil fields, iron mines, hydroelectric developments, and new agricultural areas. One can trace a belt of average growth, or slightly above (about a doubling of industrial output in the decade), along the densely populated axis of the wooded steppe from the western border of the Ukraine to Lake Baikal, a ridge between the relative troughs of the Moscow, Donbas, Urals, and Kuzbas industrial regions. with significant outliers in the North Caucasus, Armenia, parts of Middle Asia. the North, and the Far East. The pattern is obviously much more complicated than the simple concentration of all the high-growth areas in the Volga-Baikal zone in the previous twenty years (map 3).

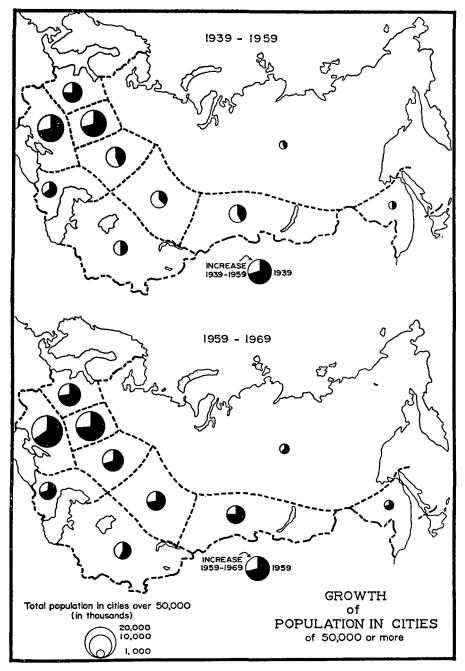
The growth rates of cities of over fifty thousand are remarkably uniform. The Baltic cities are almost identical to those of the Ural-Ob, the Moscow



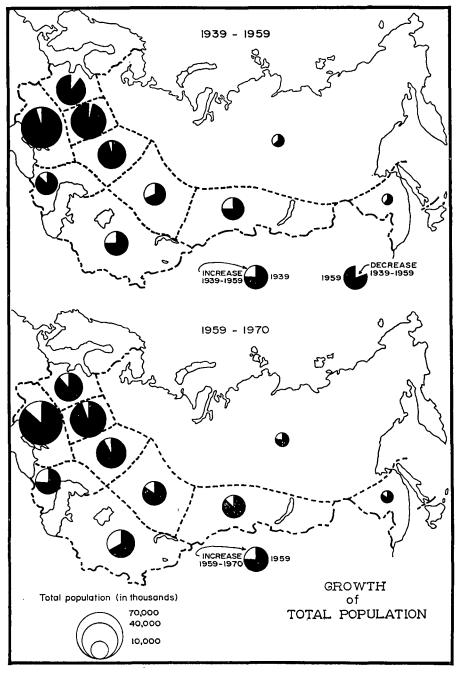
region cities to those of Central Siberia, those of the Volga-Ural to the Far East and the Caucasus, and those of the Far North to the Greater Ukraine (map 4). As before, in a study of comparable pairs of cities from East and West, such as Novosibirsk and Gorky (or Kharkov), Omsk and Rostov-on-Don, Krasnoyarsk and Voronezh, one finds that the Siberian cities still seem to have grown slightly faster (in the intercensal period 1959-70). But of all the large cities (with a population over half a million) it was Minsk in Belorussia which showed the highest rate of growth in this period. In the aggregate, the cities of Middle Asia stand out clearly, showing about twice the average rate of growth for the Russo-Siberian belt.⁵ If one takes the total population into account, the shift of emphasis to the south (which is generally much more rural than the north) is striking (map 5): fully two-thirds of the net national addition of people between 1959 and 1970 accrued to the southern fringe regions-the Greater Ukraine, the Transcaucasus, and Middle Asia-which accounted for only 40 percent of the national population in 1959. Middle Asia alone increased in this decade by 50 percent, adding 8.5 million inhabitants -more than any other Soviet region. In the broad belt from the Baltic to the Far East there is a general state of equilibrium, but the eastern regions continue to increase at a slightly faster rate. The Ural-Ob region, in fact, increased at three times the rate of the Moscow region, with an even larger total increment.

Of the broad "worlds" defined earlier, the European core (west of the Volga and north of the Caucasus) added thirteen million people, roughly twice that of the Volga-Baikal zone. This accords much more closely with their relative sizes, and constitutes a complete reversal of the ratio of the previous two decades (map 5), although the Volga-Baikal region has still grown perceptibly faster than the European core. It is remarkable also that the Far East and the Far North together added two million people in the decade, even after the presumed end of the era of forced labor-a substantially faster rate of growth than either the European core or the Volga-Baikal zone. This reflects the continuing disproportionate subsidization of the east and, to a degree, the north. However the really new element in population growth owes nothing to government encouragement. Middle Asia and Transcaucasia, by far the most rapidly growing of the three "worlds" in the Soviet Union in the sixties, added thirteen million people-as many as the much more populous European core of the country. The result mainly of the high rate of natural increase, but partly also of "irrational" Russian immigration, this phenomenon obviously constitutes an increasingly perplexing problem for the Soviet Union.

^{5.} A thorough analysis of the growth of the cities is found in Chauncy D. Harris, Cities of the Soviet Union: Studies in Their Functions, Size, Density, and Growth (Chicago, 1970).



Map 4. Changes in Societ city population, by regions, 1939–1959 and 1959–1969. Radius of circle is proportional to total population at the later date. The black section indicates population at the earlier date, and the white section indicates the increase in population.



Map 5. Total population changes, by regions, in the Soviet Union, 1939–1959 and 1959–1970. Radius of circle is proportional to total population at the later date. The black section indicates population at the earlier date, and the white section indicates the increase in population. In the Baltic and Moscow areas, where population decreased during the 1939-1959 period, the radius of the circle is proportional to the total population in 1939. The black section indicates the population in 1959, and the white section the decrease in population from 1939 to 1959.

Dilemmas and Prospects

Despite the persistent and disproportionate growth of population, industry, and agriculture in marginal areas of the east, north, and south over several decades, most of the economic and other indicators of rationality point to an optimum area for future development and growth in south European Russia. Its core may be broadly encompassed within a radius of six hundred miles from Kharkov, taking in the whole of the Greater Ukraine region (including the Kuban), stretching to Kuibyshev on the Volga, and beyond Moscow and Minsk. Within this circle is contained over half the Soviet population and agricultural and industrial production, as well as a considerable range of natural resources and potential for further development. The area's middle lies at the center of gravity of the population of the whole Soviet bloc, and it contains the densest transport network in the Soviet Union. Not only is labor relatively plentiful but its productivity per capita is in general markedly higher than in the regions to the east and south. So also is the return on capital investment in industry and agriculture, by and large. The population is overwhelmingly Slavic in ethnic composition, which is of considerable -though unacknowledged-significance. The potential resurgence of Ukrainian nationalism is a significant unanswered question. Incidentally, many people in this region, particularly the Ukrainians and Belorussians, are becoming increasingly dissatisfied with the prolonged disproportionate allocation of scarce investment capital to eastern regions, where the return tends to be lower, and with the comparative underestimation of the natural resources of their own regions.6

Notwithstanding the apparent rationality of concentrating scarce Soviet capital resources in south European Russia, the long-standing policy of investing disproportionately in the "eastern regions" (mainly the Volga-Baikal zone) is being continued in the current Ninth Five-Year Plan.⁷ Industrial growth for Siberia and the Far East is planned to be some 25 percent greater than the national average, or for the Russian republic as a whole, whereas Estonia and Latvia, which have a recent record of rapid and effective growth, are scheduled to grow considerably less than the national average in the current plan. Although labor productivity in the east is known to be substantially lower than the national average (and the turnover higher) despite generally higher wages, renewed pledges are made in the plan to up-grade the sociocultural conditions and amenities and to train skilled workers on the spot, especially in the Far East.

7. See, for example, Ekonomicheskaia gazeta, 1972, no. 1, p. 4.

^{6.} An interesting exposition of these arguments in one field is found in Leslie Dienes, "Issues in Soviet Energy Policy and Conflicts Over Fuel Costs in Regional Development," *Soviet Studies*, 23, no. 1 (July 1971): 26-58.

We might suggest some reasons for the massive subsidization of the better eastern and even some northern regions and the likelihood it will continue to some extent under present circumstances. First we cannot discount the strength of ideological inertia, buttressed by strategic apprehensions and even perhaps what might be called Great Russian chauvinism. The doctrine of equalization of economic development retains much of the ideological appeal of fifty years ago, but it is being applied largely to the outlying parts of the Russian republic rather than to other peripheral republics. The "northern vision" aspect of the national image-so important in countries as diverse as Canada, Australia, and Brazil-is still powerful in the Soviet Union. Strategically, the relative dispersal of potential industrial targets is still a compelling legacy of the experience in World War II.8 The combined incentives to discourage China and encourage Japan certainly now contribute to the urgency of developing the natural resources of Siberia and the Far East and at the same time improving the amenities that will bring these outlying regions to the stage of truly self-generating growth. One might suppose that these national apprehensions could be played upon successfully by local officials in support of local projects-for example, in the Soviet Far East at present. In addition, investment-say in Central Siberia-has by now been so great that it would be impossible to abandon it and difficult not to continue to capitalize on it. The greatest storehouse of accessible energy in the country can hardly be ignored, but whether to encourage population growth as well as resource exploitation in such regions is still very much an open question, as is that of transferring most of the energy to European Russia. Arguments for the development of various eastern regions characteristically are made on a much more long-term basis than for more western regions.

The probability that a shortage of industrial labor will be the most serious problem in the next decade or two lends greater significance to the question of what to do with the burgeoning population reservoirs of Middle Asia and parts of Transcaucasia. The industrial growth targets in the current Five-Year Plan for these regions, except for Armenia and Turkmenia, are not as high as those for Siberia and the Far East. And at present—apart from the natural gas piped out of Uzbekistan—their industrial contribution is not one of national significance. The continuing high birth rate and reluctance of the native populations to move out of their own regions, along with the continuing immigration of Russians, might well provide an irresistible incentive, in a time of labor shortage, to promote labor-intensive industries of national im-

8. See, for example, I. S. Koropeckyj, "Industrial Location Policy in the U.S.S.R. During the Postwar Period," in *Economic Performance and the Military Burden in the Soviet Union: A Compendium of Papers*, submitted to the Subcommittee on Foreign Economic Policy of the Joint Economic Committee of the U.S. Congress (Washington, D.C., 1970), pp. 263-64.

portance. A further dilemma, however, arises from the fact that the immigrants have mostly congregated in the large towns (in some of which they form a majority) while the rural areas remain solidly indigenous.⁹ This dichotomy, with sharply different rates of natural increase as well as culture, is potentially sensitive enough as a general problem (the parallels with Algeria are not entirely farfetched) to inhibit the otherwise natural desire to take advantage of the labor supply for industrial enterprises of vital national importance.

One initial conclusion from all this discussion is that the horns of the Soviet regional planner's dilemmas are indeed as sharp as those of any other country. The pressures to recognize the seemingly rational short-term economic arguments in favor of intensifying investment in the already relatively welldeveloped European core are undoubtedly building up. On the other hand, there are equally powerful counterpressures to continue the Soviet tradition, with its ideological overtones and its nineteenth-century foundations, of distributing development and population more evenly across this enormous territory. Even without the powerful strategic incentives to industrial dispersal and the incalculable shadow of China (and the rising sun of Japan), the immensely rich and varied resource base and the actual permanent extensions which have been accomplished in parts of the "eastern regions" in this century would have made substantial further development-not necessarily involving large numbers of people-in these areas almost inevitable. The overwhelmingly Russian component of these regions implicitly strengthens their case-even in the face of serious labor shortages-for self-sustaining national development in situ.

Despite the emphasis placed during 1972, the fiftieth anniversary of the USSR, on the idea of a progressively homogenized Soviet nationality, it seems probable that a region of predominantly non-Russian nationalities would experience more difficulties in building up a really powerful industrial base. However, the strikingly disproportionate growth of the native population in the southern fringes, combined with the apparently strong climatic and other attractions of these areas for Russians—probably the most significant new broad-scale regional change of the sixties—seems likely, in a time of looming labor shortage, to put this hypothesis to the test. On balance it looks as if noneconomic factors and policies in Soviet regional development will continue to be at least as powerful as they have been and that the play of various politico-ideological and strategic arguments, in addition to "harder" economic and social ones, will result in a more indeterminate state of regional equilibrium on the broad scale than has been seen in this enormous country for several centuries.

9. See, for example, Alec Nove and J. A. Newth, The Soviet Middle East: A Communist Model for Development (New York, 1967).