Conveyor-Belt Urbanism: Architecture and Regionalization during the First Soviet Five-Year Plan

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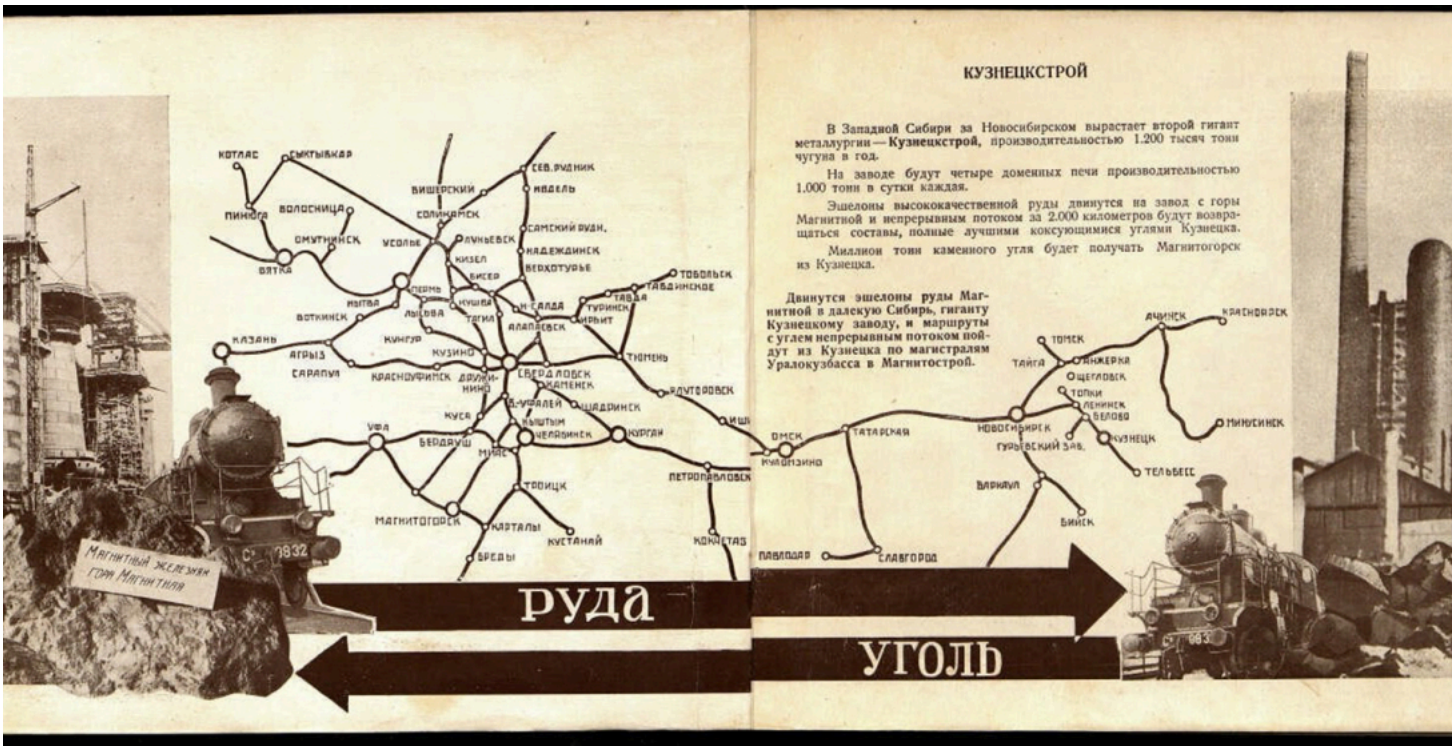

The Urals-Kuznetsk Combine.
Stroim Uralo-Kuznetskii Kombinat: Albom stroitel'stva vrotoi ugol'no-metallurgicheskoi bazy SSSR (Building Urals-Kuznetsk Combine: The Album of Construction of the Second Coal-Metallurgical Base of the USSR) (Sverdlovsk, 1932).

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One of the iconic images of Soviet modernist architecture, Ivan Leonidov's utopian vision for Magnitogorsk, is a linear city proposed in the course of the polemics between the

Soviet regional geography, later known as

urbanists and the disurbanists, the two groups that debated the future of the socialist city in 1929. Manfredo Tafuri and Francesco Dal Co were the first to see it not only as the avant-garde's swan song on the verge of its extermination by Stalinism, but as an outcome of the changes in Soviet economic politics during the transition from the liberal New Economic Policy (NEP) to forced industrialization (**fig. 1**).[1] Ayala Levin convincingly compared disurbanism's program to other developmentalist projects that subverted the narratives of urbanization, such as Patrick Geddes' late writings on urban planning in India and the 1970s plan for Dodoma, the capital of independent Tanzania, both of which embraced rural lifestyle and architecture.[2] Although following its protagonists' rhetoric, the Soviet polemic has usually been viewed in the context of Marxist claims that the distinction between the city and the country will disappear under socialism (see the contribution of James Graham to this project), its stakes were indeed broader both geographically and intellectually: the debate belonged to the ongoing international discussion on regional planning and the related program known as regional geography. Referred to as "constructive geography" in the Soviet Union since the early 1960s to account for the ambition to shape, rather than to merely describe, the surface of the globe, this form of applied geography left the confines of the academy to become an instrument in the expansion of a Soviet extraction-based industry.[3] Its key concept, the region, was positioned at the intersection of physical geography, economic planning, and regional planning. Reexamining the urbanism/disurbanism debate through the lens of the region demonstrates that the stakes included not just the form of the socialist city, but also the strategies of colonization and development of the vast territories east of the East European plain.

"constructive geography," was a key counterpart to regional planning during the interwar period. The concept of the region underwent a radical shift in scalability through the program of Soviet regional geography, scaling both up, as the economic concept of interregional combine, and down, as the urban planning concept of socialist settlement.

PROJECT

The Region: Architectural Histories of a Naturalized Concept

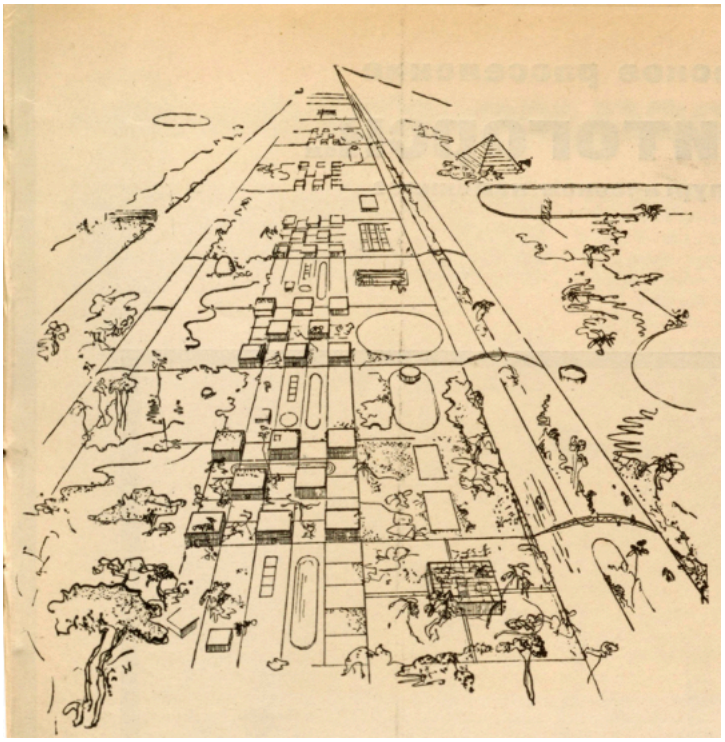


Fig. 1. OSA (Association of Contemporary Architects) [Alexandrov, Ermilov, Kuzmin, Kuzntsov, Kibirev, Leonidov, Maximov, Pyankov, Samarin], Competition Project for the city of Magnitogorsk, 1930.
Sovremennaia arkhitektura, no. 3 (1930).

In his 1965 book *The Constructive Geography of the Region: The Foundations of Regional Planning*, Ukrainian economist and planner Daniil Bogorad explained:

> The main goal of the regional plan is the planned spatial arrangement of all kinds of industry and construction in the region and the rational use of the territory of the region in the interest of the maximal increase in the productivity of social labor, the reduction of construction and manufacturing costs; social and hygienic improvement of the conditions of labor, everyday life, and recreation of the population.[4]

In the wake of Khrushchev's turn to mass housing construction, Bogorad's book announced a renewed attention to regional planning, synthesizing the discussions of the previous decades and pointed to the key principles of the discipline: rationalization, economic efficiency, coordination of industry and settlement, and hygiene.

Regional planning had emerged in the early 1920s, first in Great Britain and Germany, and then across the Atlantic, changing the scale of planning to include parks, transportation lines, and infrastructure networks

connecting urban centers and local industries.[5] From its early days, it was closely intertwined with economic planning. For both urban planners and economists, regional planning seemed to offer an exciting opportunity to extend the scope of their work in space and in time; while urban planners dreamt about designing not towns but their entire networks, economists hoped to coordinate the work of different branches of industry and direct their development in the decades to come. According to Stuart Chase, the economist within the Regional Planning Association of America, founded in 1923, "We were mildly socialist, though not at all communist; liberal but willing to abandon large areas of the free market in favor of a planned economy."[6]

In Germany, regional planning had two centers: the Ruhr region, where settlement since the eighteenth century had followed the distribution of iron ore and coal used in its processing (the Ruhr Housing Association, known as the SVR, was founded in 1920; see Anna Vallye's contribution in this project) and the mid-German region, where beginning in the late nineteenth century, new settlement patterns evolved around brown coal, used in the rising chemical industry. Merseburg, a town close to the industrial center of Halle, became the seat of the Land Planning Association for the Industrial Region of Mid-Germany (*Landesplanungsverband für den Mitteldeutschen Industriebezirk*), founded in 1923. Whereas the SVR was managed at the level of the state (North Rhine-Westphalia, where it was located), the mid-German association stretched across several states, lacking a single source of funding and administration. It thus functioned as an inter-regional consulting agency, dependent on its industry sponsors and focusing on the development of transportation and housing proposals for their needs.[7] Led by Stephan Prager, a former German technical attaché in New York, the association continued the move from thinking about the regional plan in terms of infrastructure, greening, and housing towards an economic vision of coordinated interregional development. After the Bauhaus moved to Dessau in 1925, the mid-German association's meetings sometimes took place in the school's building, as Ludwig Hilberseimer and Hannes Mayer (who would move to the Soviet Union in 1930) introduced its vision of regional planning to the Bauhaus pedagogy.[8] As will be shown below, the same principles of transportation-based interregionality occupied the minds of Soviet planners and architects, both within and outside of the modernist networks.

Following its development in Germany, Britain, and the United States, regional planning arrived in the Soviet Union at the time when the Soviet government turned to

regionalization as the strategy of both affirmative national politics and economic development: if the former was soon abandoned, the latter persisted, leading to new forms of settlement architecture and planning. Furthermore, in the Soviet Union the region was scaled both up and down—this scalability, linked to typification, was a principle of economic rationalization. Scaled up, it resulted in the short-lived, but influential, economic concept of the interregional combine. Scaled down, it inspired the concept of the socialist settlement, which was debated by the urbanists and the disurbanists. Like the region, both the interregional combine and the socialist settlement were based on transportation; both were outcomes of the politics and ideology of colonization.

Regionalism and Colonization

As Lenin noted in 1917, imperialism functioned by extracting resources from the colonies while concentrating production in the metropole.[9] In contrast, the Soviet Union, formed in 1922 on the ruins of the Russian Empire, claimed to overturn this model by promoting industrial development and self-sufficiency in every region. Soviet regionalization initially offered autonomy for national minorities, aiming to account for differences in climate, nature, and culture (for more on the national politics of the early Soviet state, see James Graham's contribution to this project).[10] A 1924 government decree, issued at the height of the liberal New Economic Policy, distinguished between exploitative colonialism (*kolonizatorstvo*) and what it framed as beneficial colonization (*kolonizatsiia*), defined as agricultural and industrial advancement.[11] Colonization was also differentiated from resettlement (*pereselenie*), defined as an uncoordinated migration of agricultural settlers (for instance, during the imperial-era settlement of Turkestan).[12] Instead, Soviet planners envisioned *rasselenie*, a rational distribution of the population aligned with economic objectives. Emerging as a counterpart of economic planning, colonization, in other words, made planned settlement a key instrument of development.

The first Soviet plan of coordinated economic development (GOELRO, 1920) distinguished eight major economic regions. This work was developed by the State Planning Committee (Gosplan), which proposed a new system of twenty-one regions in 1921. According to the mastermind of this system, economist Ivan Alexandrov, the region was "a certain unique, economically complete (but not enclosed)

territory of a country, which, due to a certain combination of natural conditions, capital values (i.e., cultural legacy of the past) and population with its traditions and readiness for productive and other economic activity would present a certain potential for performing this or that function in the general economic dynamics of the country."[13] The region was a building block of the national economy, defined by natural resources, population, and industry, and as such, possessed a strong temporal orientation towards the future: it not merely described the existing economic conditions but could shape the conditions to come.

This vision later informed the first Soviet regional plan for the Apsheron peninsula in Azerbaijan (1927-1930). Its author was Alexander Ivanitsky, who had published on urban and regional planning in Britain and the United States.[14] Ivanitsky's regional plan supported his city plan for Baku, the main center of oil production in Europe at the time, developed in collaboration with Constructivist architects and brothers Alexander and Viktor Vesnin, who designed workers' housing in the city's new districts. The decentralized structure of the oil extraction industry required dispersed settlement not unlike that in the Ruhr and mid-Germany. Addressing a twenty-five year period, the regional plan was supported by an extensive survey of the peninsula's topography, climate, and industry.

In 1928, the leading figure in Soviet literature, writer Maxim Gorky, visited Baku and saw in it an evolutionist dialectics of the local and the universal. In his account of the trip, he recalled that Ivanitsky's and the Vesnins' typified houses first appeared to him too monotonous, reminiscent of a military camp. Upon a closer look, he realized that each house was different. This made Gorky happy and he praised the architects' solution as "a variety of types." The variety of housing types, for Gorky, reflected the variety of human types—and their unavoidable further typification into a singular humanity: "In each village, a Turkic family lives side by side with Russian families; children are brought up together, and this raises hope that in a couple of decades there will be no Turks and no Russians but just people strongly united by the idea of the world's brotherhood of the workers."[15]

Gorky's vision reflects the shift from autonomy to centralization that defined Soviet regionalization politics during the 1920s. Writing in 1930, the German economist and Soviet Union expert Georg Cleinow argued that regionalization was none other than a "horizontal rationalization" of economy, a counterpart to the "vertical

rationalization" of industry, and as such, a key instrument of what Cleinow denounced as "red imperialism."[16] The main instrument of this rationalization, Cleinow continued, were networks of transportation infrastructure. Hardly any story elucidates this role of transportation infrastructure as clearly as that of the White Sea-Baltic canal and its successor, the White Sea-Baltic combine.

Located in Karelia, a northern region with a complex history of Russian, Swedish, and Finnish colonization, the 140-mile-long White Sea-Baltic canal was constructed by incarcerated labor under unspeakably inhumane conditions between 1931 and 1933. Up to as many as fifty thousand of the quarter of a million imprisoned workers died during construction (**fig. 2**).[17] Linking the Atlantic and Arctic ocean basins, the canal aimed to facilitate the export of timber from the region, as well as the export of Siberian resources via the Arctic Sea Route.[18] As the successor of the Murmansk Railway, which had been built in 1915-1916 by prisoners of war for strategic purposes and was in 1923 reorganized as "Murmansk transportation-industrial and colonization combine [*kombinat*]," the canal was endowed with the mission of the region's comprehensive industrial development based on logging and timber export.[19] This development was tied to expanding the region's population by attracting settlers, primarily among the former prisoners, who were used to the harsh environmental conditions in a region where "natives of central, not to mention southern, regions, who have never lived in the area, have no chance of successfully settling down" (**fig. 3**).[20]

Fig. 2. Journal cover devoted to the White-Sea-Baltic canal. Photographs by Alexander Rodchenko. *USSR in Construction* (German edition), No. 12 (1933).

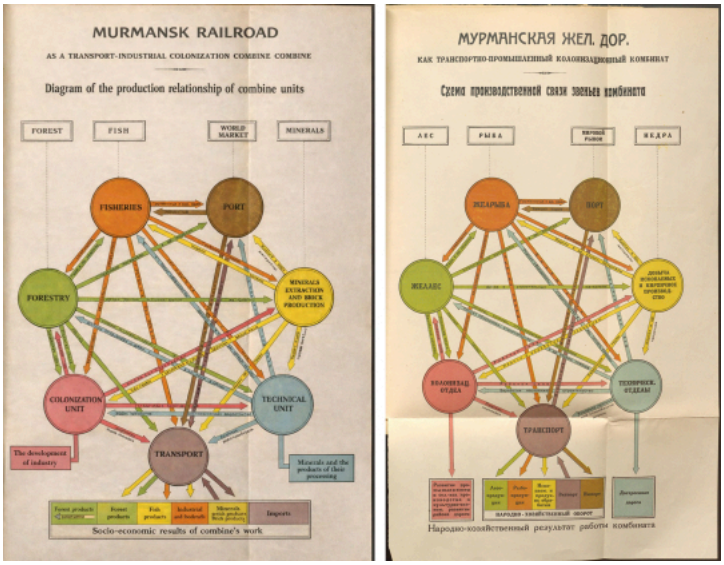


Fig. 3. Economic diagram of Murmansk Railway Combine. G. V. Chirkin, *Transportno-promyshlennyi kolonizatsionnyi kombinat Murmanskoi zhel. dor.* (Moscow-Leningrad: Glavnauka, 1928).

In 1932, Gorky visited the White Sea-Baltic canal to laud its completion. In his imagination, the construction of the canal intended to transform both the "idle" nature and the "criminal" incarcerated workers, marking "the beginning of an orderly system of the socialist development of the region."[21] Using cheap, locally sourced materials—the same ones that, Gorky noted, "nature herself used for building the territory of the Karelian republic"—the workers were to invent and construct low-tech but ingenious solutions for dams and locks.[22] "Cities, factories, settlements, highways [would] emerge, they will cut forests, while cereals and forage grasses will rustle on dried swamps, and brown-icy waters of rivers will rush into the snails of turbines," Gorky professed; furthermore, the previously barren land would fill with the signs of civilization—houses of culture, theaters, and clubs.[23] Even more so than the future canal, the construction itself, and the workforce that it brought to the allegedly empty region, was to generate this change.[24]

After the canal was completed in 1933, the White Sea-Baltic prison camp was reorganized as the White Sea-Baltic Combine, which included not only the immediate area of the canal but the entire northwest of European Russia. The employees, most of them former prisoners of the camp, now comprised a quarter of Karelia's population. As in the case of the Murmansk railway, the combine was not an administrative but an economic unit that managed and coordinated all industrial enterprises on its territory.[25] Most of the production facilities of the combine belonged to the wood-processing industry. In the economists' imagination,

this initial industrial activity would trigger urbanization, attracting population and thereby stimulating other industries.

Comparing the approach of the mid-German land-planning association to the better-known central-place theory of Walter Christaller (published in 1933), historian Harald Kegler observed that while Christaller's scheme was static, focusing on the distribution of services, the mid-German association's approach was dynamic, concentrating on the development of industry in time.[26] The Soviet concept of the combine was driven by an even stronger projective ethos, aiming not only to coordinate, but to initiate regional development. Moreover, it would soon embrace the mid-German association's other signature approach: inter-regionalism, which aligned perfectly with the Gosplan economist Alexandrov's above-cited definition of the region as being "economically complete" but not "enclosed."

Scaling Up: The Interregional Combine

The roots of both town planning and regional planning go back to human geography, a nineteenth-century field of knowledge developed by Paul Vidal de la Blache in France and Friedrich Ratzel (the author of the notorious term *Lebensraum*) in Germany in the 1880s.[27] Closely linked to ethnography, human geography explored cultures as forms of social adaptation to natural environments, understood primarily in terms of economic resources. It informed the approach of the leader of the regionalist school in Russian agrarian economy, Alexander Chelintsev, who in 1910 suggested that regions differ by stages of evolutionary development, measurable according to such indicators as the density of population and the percentage of fallow land.[28]

By the 1920s, German human geography acquired a new leader, Alfred Hettner, who redefined geography as chorology, the study of the spatial dimension of human activity.[29] Its central category was the country (*Land*), defined as spatially-organized human life in its cultural and economic complexity.[30] Hettner proposed a hierarchical categorization of chorological knowledge: the smallest unit, locality (*Örtlichkeit*), was followed by landscape (*Landschaft*, which Hettner considered to be synonymous with the region, *Gegend*), then the country, and finally the part of the world (*Erdteil*), each higher order being a product of the typification of the lower ones.[31] Similarly, in 1925, Russian geographer Leo Berg, who had started his career as an ichthyologist, proposed a classification based on Linnaean

taxonomy: the region was an equivalent to the species, the landscape to the genus, and the landscape zone to the family. In 1922, Berg had published an anti-Darwinian treatise *Nomogenesis, or Evolution Determined by Law,* whose English edition appeared with an introduction by D'Arcy Thompson.[32] Arguing from a modified Lamarckian position, Berg claimed that evolution resulted not from random mutations, but is determined by both the structure of the organism and the environment to which the species adapts.[33] This theory was the scientific manifesto of what literature scholar Patrick Sériot identified as the Russian and Soviet school of evolutionism. Unlike the European tradition, which focused on tracing lines of descent, this school, which informed not only biology, but also cultural thought (here, Gorky's reflections about Vesnin's buildings in Baku provide another example), was based on "the idea of convergence of cultures, peoples, and languages developing through admixture as a result of geographical proximity."[34]

In 1924, geographer Sergey Bernstein-Kogan (who happened to be Berg's second cousin) claimed to have established a universal, triangular relationship between climate, population, and the presence of mineral resources, generalizing it within a system of nineteen global types of regions.[35] Bernstein-Kogan founded and headed the program (*kafedra*) in economic geography at the Second Moscow State University before being forced to refocus his work on the geography of transportation. His ideas were developed by his colleague at the program , Nikolay Baransky, a party functionary who enjoyed a successful academic career despite lacking an academic background, eventually gaining recognition as the father of Soviet regional geography. Baransky's book *The Economic Geography of the Soviet Union: Review of Gosplan's Regions* was published in 1927, attributing a distinct economic specialization to each region and emphasizing the need to coordinate their economies (**fig. 4**).[36]

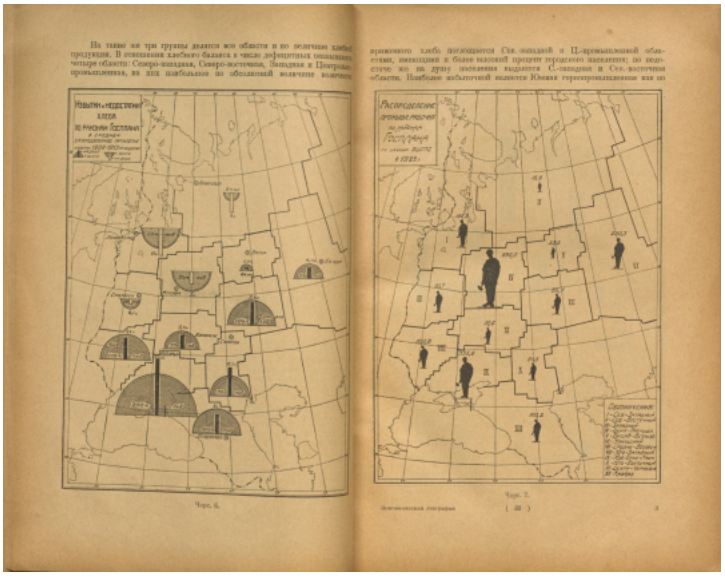


Fig. 4. Maps of "Bread Surplus and Shortage" (left) and "Distribution of Industrial Workers" (right).
Nikolay Baransky, *The Economic Geography of the Soviet Union: Review of the State Planning Agency's Regions* (Moscow: Gosizdat, 1927).

Baransky viewed economic regions of the Soviet Union as systems within the higher-order territorial system of the national and international division of labor. His thinking departed from Hettner's, the translation of whose book *Geography: Its History, Essence, and Methods* he edited in 1930. Baransky praised Hettner's category of landscape (which he collapsed with that of the country) for its comprehensive character that accounted for diverse aspects of human life.[37] What landscape however lacked, according to Baransky, was the economic dimension. By supplementing *Landschaft* with the location theories of Johann Heinrich von Thünen and Alfred Weber, he arrived at his own base category: the region.[38] For Baransky, the region was shaped by infrastructure and settlement: "As in geometry, where contour lines and dots at their intersections give form to areas, in economic geography, the main image of a country or region is comprised of roads and cities."[39] The size and location of cities depended on the availability of resources and the needs of industry.

These ideas were revised as the foundation for the First Five-Year Plan, announced in 1928, which divided the Soviet Union into twenty-four regions. Industrialization was the plan's main goal, while moving both industry and the population towards the sources of energy and mineral resources—eastwards—was its key instrument. This movement aimed not only to make industrial production more efficient and safer in case of a military conflict in Europe, but also to activate Siberia's economic potential.[40]

Known as the "great break," the transition from NEP to the Five-Year-Plan shook not only Soviet economics, but also Soviet geography. In geography, it was marked by the polemics between the so-called industrial- (*otraslevaia*) and regional schools. The industrial school argued that industrialization should be managed by ministries, whereas the regional school posited that it should be governed by regional authorities. The leader of the industrial school and the founder of economic geography in Russia, Vladimir Dehn, accused the regionalists (led by Baransky and Bernstein-Kogan) of Hettnerianism—of conflating natural and social factors, leading to geographic determinism.[41] In 1929, however, Baransky mounted a counterattack, accusing Dehn of disregard for the natural environment.[42] Although short-lived, the regionalists' victory would prove fateful. This victory was cemented by the founding of the program in economic geography at Moscow State University, which Baransky would lead until his death in 1963.

The White Sea-Baltic combine was one of the outcomes of the regionalists' victory. As a novel form of economic organization, it was preceded by the Murmansk Railway combine and by the far more ambitious Urals-Kuznetsk combine.[43] Founded in 1929 and planned by Baransky's colleague Nikolay Kolosovsky, the Urals-Kuznetsk Combine was based on the principle of the territorial division of labor. It relied on a transportation artery—the "super-mainline" (*sverkhmagistral'*)—a 1200 mile-long segment of the Transsiberian railway, which the imperial government had constructed in the early twentieth century.[44] The super-mainline's western point was the industrial center of Chelyabinsk in the Ural Mountains, rich in metal deposits, while its eastern end was the newly discovered coal deposits in Siberia's Stalinsk (today, Novokuznetsk). The railroad united these two geographically distant regions into a single production cycle—a "geographical conveyor belt".[45] According to Kolosovsky, this combined production cycle would enable a large increase in the metal-producing capacity of the Urals (where industry had previously relied on wood-burning), thus creating a new center of steel manufacturing (**fig. 5**).[46] The Urals-Kuznetsk combine was the largest ever planned interregional complex. It encompassed several branches of heavy industry located on 2.3 million square miles, a territory greater than the entire European part of the Soviet Union. It included the Urals, the Bashkir Republic, Western Siberia, and northern Kazakhstan.[47] The Chelyabinsk-Stalinsk railroad segment was to enable the development of industrialized agriculture on the "giant industrially naked plain" that it crossed and

thus the densification of the plain's settlement, as smaller lines would spin off the main railway thoroughfare.[48] The creation of steel plants on both ends of the railroad segment in 1929—one in Magnitogorsk in the Urals and one in Stalinsk—made these plans concrete.

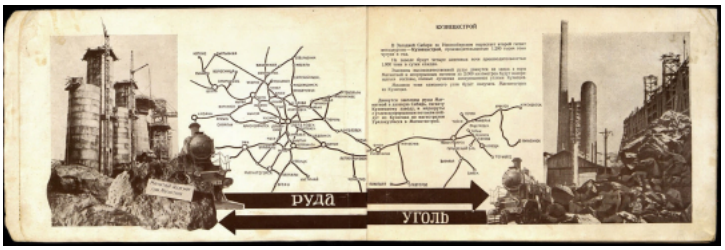


Fig. 5. The Urals-Kuznetsk Combine. The arrows mark the movements of iron ore and coal.
Stroim Uralo-Kuznetskii Kombinat: Albom stroitel'stva vrotoi ugol'no-metallurgicheskoi bazy SSSR (Building Urals-Kuznetsk Combine: The Album of Construction of the Second Coal-Metallurgical Base of the USSR) (Sverdlovsk, 1932).

If human geography, with its evolutionary hierarchy of cultures, provided rationale for extractive colonialism, its offspring, regional geography, served to support internal colonization. Substituting economic analysis for the analysis of culture, it similarly neglected indigenous populations, moving from the concept of architectural type as adaptation to the environment to the image of the exploitation and transformation of the environment as the mechanism for changing social and economic relationships. The debate about the socialist city was an outcome of this shift.

Scaling Down: Socialist Settlement

In the minds of Soviet theorists, economic geography, regional planning, urban planning, landscape architecture, and finally, housing, all addressed the same problem—regional development—on different scales. This scalability of the region, which goes back to the scalability of Hettner's country, explains the remarkable politicization of the debate about the type of socialist settlement. This debate ignited in 1929 at the moment of industrialization and the supporting collectivization of agriculture, which led to the catastrophic famine of 1932-1933.[49] The grouping of villages around machine-tractor stations, which were centers of technical support as well as of state control, was seen as an enabling factor for collectivization (on machine-tractor stations, and on the urbanism-disurbanism debate, see the contribution of James Graham to this collection). It promised to elevate peasants, who were portrayed as backward and ignorant, and to bring economic prosperity to villages. In this context,

Soviet planners articulated the response to the Marxist critique of the division between the city and the country in terms of blending the programs of industrialization and collectivization within the framework of regional development.[50]

The political debate was as violent as its context. Leon Trotsky, who had insisted on the program of "superindustrialization," was expelled from the Party in 1927. His radical position, however, was appropriated by Stalin, who pushed out two other top politicians, Anatoly Rykov and Nikolay Bukharin, the following year for calling to slow down the pace of industrialization and to support the peasantry.[51] If in 1927 Chelintsev had hoped to employ his earlier theory of regionalization for the needs of collectivization, defining the region as "an evolutionary stage," by 1930 this definition was criticized by party functionaries as being "based on the idea of foresight" rather than on the principle of "engineered design." Regionalization, like Soviet economics, politics, and science, was to become not merely projective, but "teleological"—based on consciously setting goals for the future rather than on observation and analysis.[52]

The initiators of the debate about the type of socialist settlement were not architects, but economists. The urbanists were led by Leonid Sabsovich, who previously headed the department of ferrous metallurgy at Gosplan.[53] His publications on urbanism appeared alongside his book *Soviet Union in Fifteen Years*, which promoted Stalin's great acceleration.[54] Sabsovich envisioned a network of mid-size settlements (between forty and sixty thousand residents each) for workers employed in industrialized agriculture and other industries.[55] The theorist of disurbanism was Mikhail Okhitovich, a sociologist and politician who had earlier been expelled from the Communist Party after publicly supporting Trotsky, but who was later restored (he would, however, eventually be executed for criticizing collectivization).[56] At the time when cooperation was seen as the mechanism of collectivization and a solution to the housing crisis, Okhitovich turned to it in search of a new model of settlement. Citing the French theorist of economic cooperation Charles Gide, Okhitovich proposed getting rid of agglomeration centers altogether. Like those of the Spanish planner Arturo Soria y Mata before him (and like the "band-town" that Otto Königsberger would later propose), his settlements would instead stretch along transportation lines.[57] Both Sabsovich and Okhitovich thus saw social change, industrialization, and territorial expansion as intertwined. The difference between their programs is

commonly articulated in terms of the housing model. Sabsovich proposed to house people in phalanstery-like "residential combines" of two to three thousand residents (citing the Vesnins' projects for house-communes as examples); Okhitovich envisioned small individual living modules with collectivized services.[58] However, the debate's stakes were broader and concerned not only the microscale of everyday life and social structure, but also the macroscale of economic planning: whereas Sabsovich proposed a network of development, Okhitovich envisioned a vector—a scaled-down interregional combine.

Okhitovich's key supporter among architects was the collaborator of the Vesnins, the Constructivist Moisei Ginzburg, who in 1921 had published a series of articles analyzing the construction tradition of the Crimean Tatars, emphasizing the organic connection between the environment and the building type.[59] After moving to Moscow, Ginzburg joined the State Construction Committee as the head of the Section of Typification and later of the Section of Socialist Settlement, developing a series of typified, prefabricated, and easily assemblable units to be used in disurbanist settlements. The 1930 competition for the masterplan of Magnitogorsk, which was chaired by Gorky's old associate Anatoly Lunacharsky, offered the Constructivists an opportunity to explore disurbanism (**fig. 6**). The submission by the constructivist Association of Contemporary Architects (OSA), among whose authors was Ivan Leonidov, proposed a 15-mile-long line of settlement, which, like the interregional combine, would stretch between the industrial center on one side and the giant-scale collective farm on the other.[60] Reminiscent of the American urban grid, the grid in this project acted as infrastructure for a boundless expansion in space (**fig. 1**).[61]

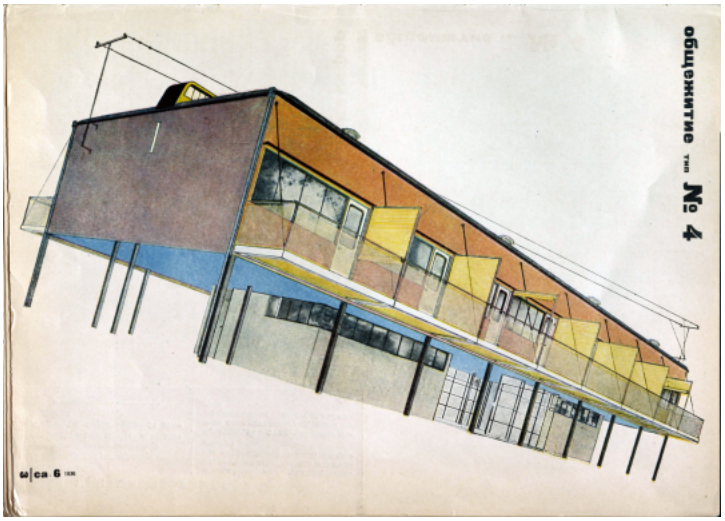


Fig. 6. Section of Socialist Settlement of the State Planning Committee of the USSR (Moisei Ginzburg, Mikhail Okhitovich, et al.). Dormitory type No. 4.
Sovremennaya arkhitektura, No. 6 (1930).

In his own submission, developed with another group of constructivist architects, Okhitovich went further, changing the name, and with it, the scale of the project.[62] The authors addressed not the city, Magnitogorsk, but *Magnitogorye*, the region that encompassed mines, factories, supporting industries, and agriculture. The project envisioned a hydroelectric power plant whose dam creates an artificial lake, providing water for chemical and metalworking factories (**fig. 7**). Perforated by mines, the Magnetic Mountain, the source of iron ore, is the heart of the project. Eight lines of settlement, each 15 miles long, radiate from it, linking it to the agricultural and livestock production regions. Housing consists of Ginzburg's individual modules, whose lines are interspersed with cultural and consumer centers. Addressing the brief's call for self-building and self-funding solutions to housing construction, Okhitovich's team proposed using local leftover industrial materials such as adobe and reed panels. Coupled with the freedom provided by living in individual units, this self-sufficiency recalls not only the GULag's construction methods, but also anarchist ideals.[63] Indeed, as Okhitovich explained, territorially, his solution was "almost identical" with Peter Kropotkin's anarchist vision; the difference lay in the fact that Kropotkin's settlement relied on craftsmanship, whereas his was based on industrial production.[64]

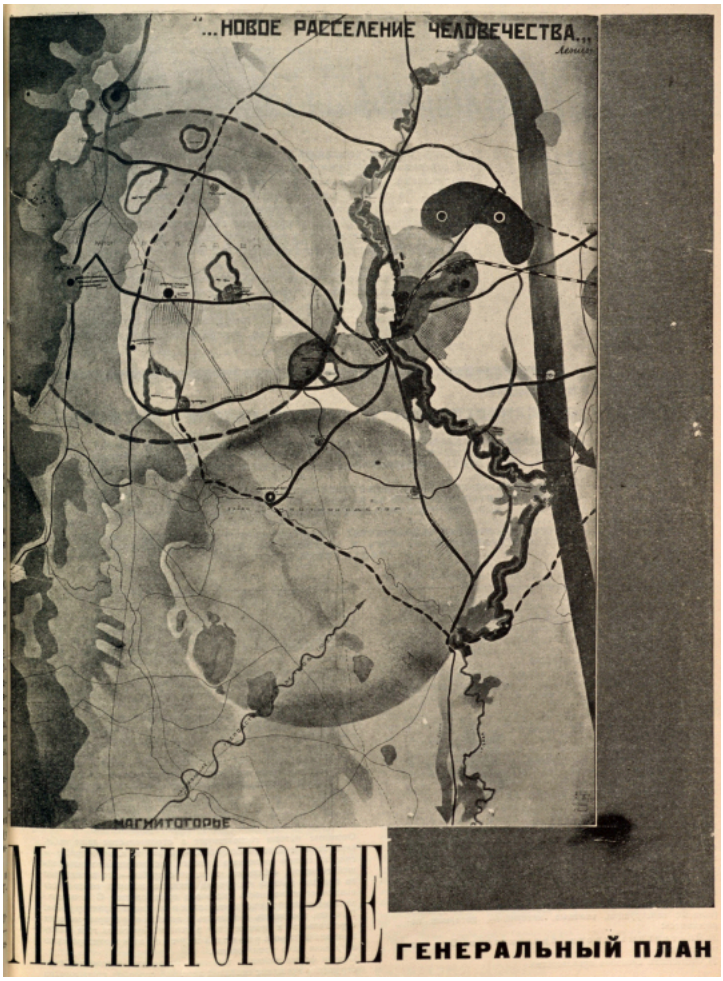


Fig. 7. Mikhail Barshch, Vyacheslav Vladimirov, Mikhail Okhitovich, and Nikolay Sokolov, with Georgy Vegman, Nina Vorotyntseva, Alexander Pasternak et al., Magnitogorye (competition project), 1930.

The debate attracted a great deal of attention from officials and the public. The government rejected the radicalism of Sabsovich and Okhitovich, suggesting to focus instead on the more pressing issues of hygiene and cost-efficiency. Attended by over one thousand people, the meeting at the Communist Academy in May of 1930 was opened by Nikolay Milytin, the minister of finance, who, as the head of the government committee on the construction of new towns, was the vice-chair of the jury in the Magnitogorsk competition. Milytin's book *The Socialist City* [*Sotsgorod*] delineated his version of the linear city subordinated to the logic of the territorial division of labor. Arguing for a model that is based on "the functional-assembly-line system," he envisioned an industrial center where functional zones stretch in parallel to the river, which supplies industry with water, and to the transportation arteries linking production processes.[65] Concerning social organization, however, Milytin proposed not a revolution (as advocated by Sabsovich), but an evolution, reflecting the moderate position of his patron,

Rykov, a critic of forced industrialization. In this, he sided with Ginzburg, the architect of the residential block of the ministry of finance (Narkomfin), where Milytin resided. Both the Narkomfin and Milytin's linear city were envisioned as spaces of "a transitional type" for what was termed "the transitional economic period."[66] Both were to encourage–not force–residents to gradually move towards more communal forms of everyday life. Cited by Hilberseimer and other modernists, Milytin's book was translated into English in 1975, remaining the most consequential outcome of the discussion.[67] Its impact in Russia, however, was short-lived: after the fall of Rykov and Bukharin, Milytin lost his political influence and subsequently retrained as an architect.

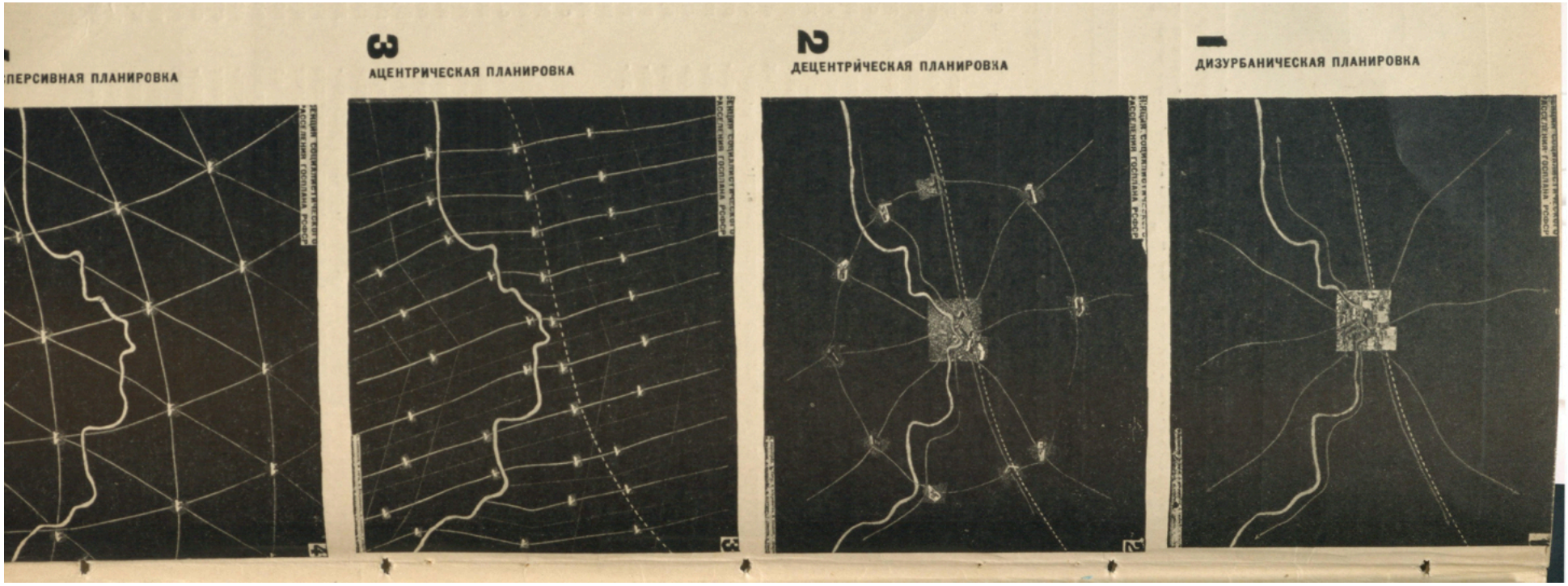
Meanwhile, Hettnerianism was banned from Soviet geography, and with it, Baransky's regionalism was subjected to political critique. All non-materialist human geography fields—a heterogeneous mix: geography of race, demography, colonial geography, eugenics, and cultural history among others—disappeared from teaching and research, leaving economic geography as the sole survivor. As Baransky later complained,

> Having destroyed the old human geography, 'the new movements' did not create anything in its place; the section on population, where in old geographic descriptions one could find substantial information not only about the composition of the population, its distribution, settlements, but also about character, traditions, and culture, completely disappeared from the new publications […]. The human was forgotten!!![68]

Yet Baransky himself had contributed to this crusade, suggesting that geography should become a study of the spatial distribution of economic activity.

The rejection of human and regional geography mirrored the political rejection of comprehensive and coordinated regional development. Once the first stage of industrialization was completed, international trade declined, while the discovery of the deposits of coal in the Urals and of iron ore in the Kuznesk area rendered the interregional scale of the Urals-Kuznetsk combine obsolete. The connections between regions lost their importance. Far from empowering the regions, however, this increase in autarchy had the opposite effect: the constitution of 1936 returned national governance to the centralized, industrial approach.

At the end of 1930, Okhitovich and Ginzburg made their last attempt to save the work of the Section of Socialist Settlement by adapting it to this new program.[69] In their report to the Presidium of Gosplan, published in the Constructivist journal *Sovremennaya arkhitektura* (*Contemporary Architecture*), they addressed not social or geographic, but economic diversity, proposing to typify models of regional development rather than buildings or settlements. They no longer sought to overcome the differences between the city and the country, but the differences between agricultural, extractive, and industrial economies. "Socialist settlement" now appeared not as a type, but as the teleological end of regional planning, which, unlike regional planning in the West, "views the particular as an element of the general, and therefore, from the very start, plans not cities, not villages, not towns for workers of this or that enterprise or their combination, but the general network of settlement of the entire economic region" (**fig. 8**).[70] The first type of development addressed existing cities, offering a linear model for dispersing their population. The second was intended for industrial areas, proposing to de-densify them by removing smaller industries to satellite centers. The third, for agricultural and extractive regions, intended to create a series of manufacturing centers. Finally, the fourth type was for regions where industry and agriculture had already merged, utilizing planning to balance their distribution by creating an even network of settlement. All housing in these settlements was to be built according to Ginzburg's typified modular projects, while the role of regional specificity was now reduced to that of a cost-saving strategy; as in Okhitovich's project, the modules were to be constructed of local or leftover industrial materials (**fig. 9**).


ЛЕРСИВНАЯ ПЛАНИРОВКА
3
АЦЕНТРИЧЕСКАЯ ПЛАНИРОВКА
2
ДЕЦЕНТРИЧЕСКАЯ ПЛАНИРОВКА
1
ДИЗУРБАНИЧЕСКАЯ ПЛАНИРОВКА

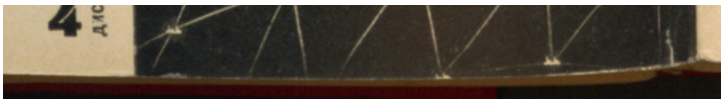


Fig. 8. Diagrams.
Moisei Ginzburg, Mikhail Okhitovich, et al., "Report of the Section of Socialist Settlement of the State Planning Commission," *Sovremennaya arkhitektura*, No. 6 (1930).

Fig. 9. Maps.
Moisei Ginzburg, Mikhail Okhitovich, et al., "Report of the Section of Socialist Settlement of the State Planning Commission," *Sovremennaya arkhitektura*, No. 6 (1930).

A similar move from typifying social function to typifying development took place on a smaller scale: that of an urban park. In 1931, Ginzburg envisioned his plan for the Park of Culture and Leisure in Moscow as a series of functional zone strips following, in Miliytin's spirit, the curve of the river. In 1934, architects Militsa Prokhorova and Lyubov Zalesskaya used regional development models to design a new public park in Chelyabinsk, the western endpoint of the Urals-Kuznetsk combine, which was allocated a giant territory of

over seven square miles.[71] Prokhorova and Zalesskaya presented the project not as a design, but as a diagram of growth types. The first growth type created a wedge that widened towards the park's periphery (**fig. 10**). The second established several expanding circular cores. The third, or "linear," model proposed axes of growth extending in both directions. Finally, the last model suggested creating smaller "park-combines," each providing the basic minimum of all functions, in different parts of the park. Prokhorova and Zalesskaia's diagram for Chelyabinsk suggested combining all of these models.[72]

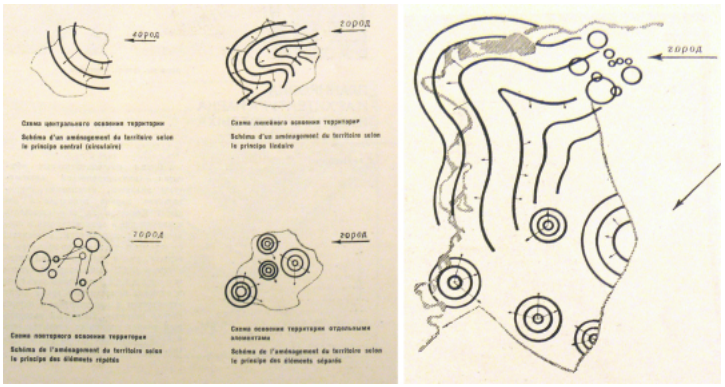


Fig. 10. Four models of the growth of a park by Lyubov Zalesskaya and Militsa Prokhorova (left). Scheme for the prospective development of the Cheliabinsk park of culture and leisure (right).
Arkhitektura SSSR, No. 5 (1934).

The pre-World War II militarization of the economy required a concentration of both material and human resources in the construction and servicing of large factories. These factories' workforce would be most conveniently settled in cities such as the ones designed by Ernst May, the architect of New Frankfurt, who would become the planner of Magnitogorsk. May's CIAM-esque dispersed planning, however, would soon become obsolete and replaced by concentric urbanism. As the White Sea Canal construction seemed to have proven, it was the use of incarcerated labor that appeared as the ultimate cost-saving solution. Not the networks or vectors of settlements, but the "Gulag Archipelago," which spread throughout the country until the mid-1950s, was to provide extraction and construction sites with labor.

Epilogue

Several key documents codifying the development of international regional planning appeared in 1933: Abercrombie's *Town and Country Planning* in Britain; the Tennessee Valley Authority act in the United States;

Christaller's *Central Places in Southern Germany* in Germany; and CIAM's Athens Charter, which postulated that "The city must be studied within the whole of its region of influence. A regional plan will replace the simple municipal plan."[73] Regional planning also remained present in Soviet theory. Despite political assaults, it was discussed in Gosplan's collection of articles on urban planning, which was published as a single volume the same year. Appearing in this book, the programmatic article by M. N. Petrov drew both a distinction and a connection between the regional or municipal plan (*planirovka*) and centralized economic planning (*planirovanie*):

> Inasmuch as the plan of construction and building is the means of achieving economic production plans, *planirovka* is the first stage of fulfilling the plan of people's economy, [because it] provides enterprises with a rational location and mutual connections. Although *planirovka* organizes the territory in a planned manner [*planomerno*], that is, according to the demands of the plan of people's economy, it is different from *planirovanie* because it does not create or direct the plan of people's economy, serving only to support *planirovanie*.[74]

Addressing "quite long-term perspectives of the city's development," *planirovka* had to include the functional zoning system, an intra- and interregional transportation scheme, schemes for the park and sewage systems, residential areas, service centers, and defense.[75] Despite being subordinate to *planirovanie, planirovka* was seen as its scaled-down version. Its basic "planning unit" was the "economic (production) complex of settlement," which included the city and the agricultural zone economically linked to it. It was followed by a hierarchy of higher-order categories: the "planning complex" (*planirovochnyi kompleks*), or economic region; an economic district (*ekonomicheskaia oblast'*), a sum of economic regions; and finally, the "planning scheme of the Union." Since these higher-order plans, Petrov explained, were still missing, their development had to become Gosplan's priority.[76]

This focus on the bottom and top of the hierarchy—the municipal and the economic plan—meant that, following the demise of the horizontal connections between the regions, the mesoscale of regional planning lost its in significance. Yet, it did not disappear altogether. A government decree from June 27, 1933 distinguished four cases in which it was applicable: industrial regions, agricultural regions, resort

regions, and suburban zones of big cities.[77] With both Leonidov and Zalesskaya on his team, Ginzburg returned to Crimea in the 1930s to head the work on the regional plan for the resort region of its southern shore.[78] Ivanitsky, serving as professor of urban planning at Moscow Architectural Institute, continued to develop his concept of regional planning throughout the 1930s and 40s. By 1935, Baransky was active again, as an academic rather than as a practitioner. In this role, he and his circle were instrumental in training generations of Soviet geographers. Within the same decade, Kolosovsky, by then a professor of economic geography at Moscow State University, developed the principles of the combine into the concept of the "territorial-production complex," which, synthesized with Ivanitsky's school of regional planning, would dominate Soviet urbanism for the rest of the Cold War.[79]

In the aftermath of decolonization, the promise of economic development that this program of regionalization carried would find resonance in India, Cuba, and beyond, channeled by a set of associated principles and concerns including productivism, system-thinking, decentralization, standardization, and population distribution.[80] Defined based on natural conditions, population size, and above all, economy, the region remained a fundamental category within this school of development theory. And while the horizontal rationalization of regionalism would never regain its full importance in Soviet economic and regional planning, the vertical rationalization of typification—an instrument of scaling—would persist, deepen, and lead to new forms of organization and control.

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✓ Transparent peer-reviewed

Alla Vronskaya, "Conveyor-Belt Urbanism: Architecture and Regionalization during the First Soviet Five-Year Plan," *Aggregate* 14 (April 2026), https://doi.org/10.53965/NUBD7264.

1 Manfredo Tafuri and Francesco Dal Co, *Modern Architecture,* trans. Robert Erich Wolf (New York: H. N. Abrams, 1979), 204–220. ↑

2 Ayala Levin, “The village within: an alternative genealogy of the urban village,” *Journal of Architecture 23*, no. 3 (March 2018): 392–420. ↑

3 The term “constructive” was used in relation to regional planning as early as 1930. See: E. S. Efraimskii, “Poraionnyi plan i ego znachenie dlia kooperativnogo planirovaniia,” *Planovoe khoziaistvo*, no. 7 (1930): 75–93, no. 9 (1930): 151–165 (159). “Constructive geography” was introduced by Innokentiy Gerasimov in the 1960s. See: I. P. Gerasimov, “Konstruktivnaia geografiia: tseli, metody, resultaty,” *Izvestiia Vsesoiuznogo geograficheskogo obshchestva* 98, no. 5 (1966): 389–403. The principles of this approach, however, go back to the work of Nikolay Baransky, discussed in this article. In their article comparing the French *géographie volontaire* with the Soviet regionalist approach as initiated by Baransky and developed by Nikolay Kolosovsky, Kenny Cupers and Igor Demchenko use the term “projective geography.” See: Kenny Cupers and Igor Demchenko, “Projective Geographies between East and West” in *Re-Scaling the Environment: New Landscapes of Design, 1960–1980*, ed. Ákos Moravánszky and Karl R. Kegler (Basel: Birkhäuser, 2017), 135–151. ↑

4 D. I. Bogorad, *Konstruktivnaia geografiia raiona: osnovy raionnoi planirovki* (Moscow: Mysl’, 1965), 3. ↑

5 See: Patrick Abercrombie’ plans for Doncaster (1922) and Deeside (1923). ↑

6 Meanwhile, the Regional Planning Association of America critiqued Thomas Adams’s *Regional Plan of the City of New York and its Environs* (1929–1931) as insufficiently projective: the plan, they argued, accepted existing urban and territorial structures without taking the responsibility for redesigning them. Quoted in Peter Hall, *Cities of Tomorrow: An Intellectual History of Urban Planning and Design since 1880* (Hoboken, NJ: Wiley-Blackwell, 1997), 169. ↑

7 Harald Kegler, *Landesplanung Mitteldeutschland. Spiel-Räume: Die Entstehung der wissenschaftlichen Raumordnung in Deutschland — das Dezentralisierungsparadigma, die Internationalisierung, der Planungsatlas und die demokratisch basierten Strukturen in den Schlüsseljahren 1925–1932* (Hannover: Akademie für Raumforschung und Landesplanung. Leibniz-Forum für Raumwissenschaften, 2015), 79–80. ↑

8 Kegler, *Landesplanung Mitteldeutschland,* 142–144; Anna Vallye, “On the diagrammatic rationality of Hilberseimer’s planning,” in *Architect of Letters: Reading Hilberseimer*, ed. Florian Strob (Basel: Birkhäuser, 2022), 178–192. ↑

9 Vladimir Lenin, *Imperialism: The Highest Stage of Capitalism* (London: Penguin Classics, 2010). ↑

10 Several forms of national autonomy appeared in the context of the civil war in 1918, including Turkestan-, Donetsk–Krivoy Rog-, Terek-, and several other Soviet Republics. A number of “national autonomous republics” appeared in 1920–1921 (Kyrgyz, Tatar, Dagestan, and others). All of these autonomies were considered parts of the Russian Federation. ↑

11 The decree of the Council of Labor and Defense (STO) from October 7, 1924, defined colonization as “the sum of measures for the economic exploration [*khoziaistvennoe osvoenie*] of new regions with the purpose of the increase in agricultural-economic and industrial production” and “with the purpose of the densification and solidification of regions possessing economic and political significance.” Cited in G.F. Chirkin, *Transportno-promyshlennyi-kolonizatsionnyi kombinat Murmanskoi zhel. dor. Ego vozniknovenie, razvitie i metod rabot* (Moscow-Leningrad: Glavnauka, 1928), 68. ↑

12 See: Francine Hirsch, *Empire of Nations: Ethnographic Knowledge and the Making of the Soviet Union* (Ithaca: Cornell University Press, 2005), 88–89. ↑

13 I. G. Aleksandrov, “Economicheskoe raionirovaniie Rossii,” *Trudy VIII vserossiiskogo elektrotekhnicheskogo s’ezda*, vol. 2 (Moscow: Izd. Gosplana, 1921). Cited after E. S.

Efraimskii, “Poraionnyi plan i ego znachenie dlia kooperativnogo planirovaniia.” ↑

14 A. Ivanitskii, “O planirovke oblastei i raionov v Anglii i SShA,” *Trudy II Vsesoiuznogo (XIV) vodoprovodonogo i sanitarno-tekhnicheskogo s’ezda* (Moscow: Izd. post. biuro vodoprov. i san.-tekhn. s’ezda, 1927): 221–223. Vladimir Semenov, who with Alexander Ivanitsky and others designed Prozorovskaya garden-city near Moscow in 1913, had earlier participated in the garden-city movement in Britain. He met with Raymond Unwin during a trip to London in 1924. See: V. G. Davidovich and T. A. Chizhikova, *Aleksandr Ivanitskii* (Moscow: Stroiizdat, 1973), 18–21. ↑

15 M. Gorky, “‘Po Soiuzu Sovetov,’ 1928-1929 gg.,” *Collected works, Vol. 2 (1924–1931)* (Moscow: Goslitizdat, 1962), 229. Cited in Ivanitsky, 53–54. For a discussion of typification in this project, see: Christina E. Crawford, *Spatial Revolution: Architecture and Planning in the Early Soviet Union* (Ithaca: Cornell University Press, 2022). ↑

16 Georg Cleinow, *Roter Imperialismus: Eine Studie über die Verkehrsprobleme der Sowjetunion* (Berlin: Julius Springer, 1931), 27. ↑

17 On the history of the canal, see, for example: Nick Baron, *Soviet Karelia: Politics, Planning, and Terror in Stalin’s Russia, 1920–1939* (London: Routledge, 2007); Konstantin Gnetnev, *Belomorkanal: Vremena i sud’by* (Petrozavodsk: Ostrova, 2008); Cynthia A. Ruder, *Making History for Stalin: The Story of the Belomor Canal* (Gainesville: University Press of Florida, 1998). ↑

18 On the economic reasoning (and its conflicting visions) behind the canal, see: Baron, *Soviet Karelia*, 129–163. ↑

19 In doing so, Soviet planners were inspired by the North American model (known as “canadization”) of railroad construction and management, under which the government granted railroad companies land, which was then sold to the settlers: the construction was financed by land speculation rather than by government subsidies. See Chirkin, *Transportno-promyshlennyikolonizatsionnyi kombinat Murmanskoi zhel. dor.*, 20–29. ↑

20 G. F. Chirkin, *Transportno-promyshlennyi kolonizatsionnyi kombinat Murmanskoi zhel. dor.* (Moscow-Leningrad: Glavnauka, 1928), 27. ↑

21 M. Gorky, L. L. Averbakh, and S. G. Firin, eds., *Belomoro-Baltiiskii kanal imeni Stalina: Istoriia stroitel’stva, 1931–1934* (Moscow: OGIZ, 1934; reprint by unknown publisher, 1998), 555. ↑

22 Gorky, Averbakh, and Firin, eds., *Belomoro-Baltiiskii kanal imeni Stalina,* 126–127. ↑

23 Gorky, Averbakh, and Firin, eds., *Belomoro-Baltiiskii kanal imeni Stalina,* 555. ↑

24 On the Murmansk Railway and settlement in Karelia, see: Baron, *Soviet Karelia*, 75–83. On the notion of “civilization” and its relation to colonization and the White-Sea Canal, see: Alla Vronskaya, “Towards a Territorial History of (a Northern) ‘Desert,’” in *Deserts Are Not Empty*, ed. Samia Henni (New York: Columbia Books on Architecture and the City, 2022), 316–339. ↑

25 On the combine, see: Gnetnev, *Belomorkanal*, 331–337 and Baron, *Soviet Karelia*, 135–156. ↑

26 Kegler, *Landesplanung Mitteldeutschland*, 183–184. ↑

27 Friedrich Ratzel, *Der Lebensraum: Eine biogeographische Studie* (Tübingen: H. Laupp, 1901). ↑

28 A. N. Chelintsev, *Sel’skokhoziaistvennye raiony evropeiskoi Rossii kak stadii sel’skokhoziaistvennoi evol’utsii i kul’turnyi uroven’ sel’skogo khoziaistva v nikh* (St. Petersburg: Tip. Sel’skogo vestnika, 1910). ↑

29 Hettner was the head of the Heidelberg Section of the German Colonial Society between 1920 and 1931. ↑

30 Hettner’s book on European Russia had been translated in 1907, contributing to his popularity in the country. ↑

31 Alfred Hettner, “Unsere Auffassung von der Geographie,” *Geographische Zeitschrift* 35, no. 7/8 (1929): 486–491 (490). ↑

32 L. S. Berg, *Nomogenesis; or, Evolution Determined by Law*, trans. J.N. Rostovtsov (Cambridge, MA: MIT Press, 1969). ↑

33 For more on neo-Lamarckism in Soviet intellectual and architectural culture, see: Alla Vronskaya, *Architecture of Life: Soviet Modernism and the Human Sciences* (Minneapolis: University of Minnesota Press, 2022). ↑

34 Patrick Sériot, *Structure et totalité: Les origines intellectuelles du structuralisme en Europe centrale et orientale* (Paris: Presses Universitaires de France, 1999), 149–150. ↑

35 S. V. Bernshtein-Kogan, *Ocheki ekonomicheskoi geografii* (Moscow-Petrograd, 1924). ↑

36 N. Baranskii, *Ekonomicheskaia geografiia SSSR. Obzor po oblastiam Gosplana* (Moscow: Gosizdat, 1927). ↑

37 N. Baranskii, “Ot redaktora,” Al’fred Gettner [Alfred Hettner], *Geografia: ee istoriia, sushchost’ i metody*. Ed. by N. Baranskii (Moscow-Leningrad: Gosizdat, 1930), 3. ↑

38 Baranskii, “Ot redaktora,” 4–5. ↑

39 N. N. Baranskii, “Ob ekonomiko-geograficheskom izuchenii gorodov,” in *Ekonomicheskaia geografiia. Ekonomicheskaia kartografiia* (Moscow: Gosudarstvennoe izdatel’stvo geograficheskoi literatury, 1960), 172. ↑

40 The old imperial industrial base, the Donetsk region in Ukraine, was indeed occupied during the civil war and would again be occupied during the Second World War. ↑

41 Bernstein-Kogan (1886–1951) had to move from economic geography to the geography of water transportation after Dehn’s vitriolic critique of his book *Introduction to the Economy of Industry*. He was arrested in 1930 and sentenced to death. The sentence was later replaced by a labor camp term, which he served at the construction of the Moscow Canal. He was released in 1932 and returned to academic work. ↑

42 Vladimir Dehn (1867–1933) founded the first chair of economic geography in Russia (in the Polytechnic Institute in St. Petersburg) in 1902 and was the head until 1931. Although he was not arrested, his successor, Heinrich (Genrikh) Möbus took his life after being interrogated in 1931. ↑

43 “Plan of Prioritisation of Hydroelectricity Construction and the Development of Industry in BBK Districts,” 1935. Cited in Baron, *Soviet Karelia*, 137, 147. ↑

44 See: G.M. Krzhizhanovskii and P.S. Osadchii, eds., *Problema sibirskoi sverkhmagistrali* (Moscow: Plankhoz, 1929). ↑

45 K. I. Ivanov, *Territorial’ye sistemy obshchestvennogo proitzvodstva* (Moscow: Mysl’, 1975), 132–141. The author of the quotation, Kuzma Ivanov, was a student of Kolosovsky. For the period use of this term by Okhitovich, see the contribution of James Graham to this project. ↑

46 N. Kolosovskii, *Budushchee Uralo-kuznetskogo kombinata* (Moscow: Gosudarstvennoe sotsial’no-ekonomicheskoe izdatel’stvo, 1932). ↑

47 See: Franklyn D. Holzman, “The Soviet Ural-Kuznetsk Combine: A Study in Investment Criteria and Industrialization Policies,” *The Quarterly Journal of Economics* 71, no. 3 (August 1957): 368–405. ↑

48 Ia. A. Ioffe, “Uralo-kuznetskii kombinat kak vazhneishii faktor industrializatsii vostochnykh raionov SSSR” in *Uralo-kuznetskii kombinat. Sbornik statei*, ed. A. O. Zolotarev (Moscow: Gosudarstvennoe sotsial’no-ekonomicheskoe izdatel’stvo, 1931), 26. ↑

49 The word “type” in relation to the discussion was used, for instance, by architect Alexander Zelenko in the talk given at the Discussion of Planning Workers in November 1930. See: A. U. Zelenko, “Stroitel’stvo sotsialisticheskikh

gorodov," *K probleme stroitel'stva sotsialisticheskogo goroda. Diskussiia v klube planovykh rabotnikov im. G. M. Krzhizhanovskogo* (Moscow: Plankhoz, 1930), 7–26 (9). ↑

50 On the management of rural population, see also: Levin, "The village within." ↑

51 All three would eventually be killed. ↑

52 Cited in Efraimskii, "Poraionnyi plan i ego znachenie." See also: Susan Gross Solomon, *The Soviet Agrarian Debate: A Controversy in Social Science, 1923-1929* (Boulder: Westview Press, 1977), 168–170. ↑

53 Little biographical information about Leonid Sabsovich remains available; he was likely incarcerated (and executed) in the immediate aftermath of the discussion. See: D.S. Khmel'nitskii, "Leonid Sabsovich ili Kto pridumal obobshchestvlenie byta," Archi.ru, September 8, 2011, accessed February 23, 2024, https://archi.ru/almanac/91610/leonid-sabsovich-ili-kto-pridumal-obobschestvlenie-byta . ↑

54 L. M. Sabsovich, *SSSR cheerz 15 let: Gipoteza postroeniia sotsializma v SSSR* (Moscow: Plankhoz, 1929); see also: Leonid Sabsovich, *L'U. R. S. S. dans dix ans; plan général de la construction du socialisme (hypothèse)* (Paris, Bureau d'éditions, 1930). ↑

55 L. Sabsovich, *Sotsialistichskie goroda* (Moscow: Moskovskii rabochii, 1930) and L.M. Sabsovich, "Novye puti v stroitel'stve gorodov," *Stroitel'stvo Mosky* 1, no. 1 (1930): 3–5. ↑

56 Okhitovich's elder brother Evgeny was a demographer who studied population distribution. See: S. O. Khan-Magomedov, *Mikhail Okhitovich* (Moscow: Russkii avangard, 2009). On Okhitovich's trial and execution, see: Hugh D. Hudson, *Blueprints and Blood: The Stalinization of Soviet Architecture, 1917–1937* (Princeton: Princeton University Press, 1994). ↑

57 M. Okhitovich, "Ot chego gibnet gorod?" *Stroitel'stvo Moskvy* 1 (1930): 9–11 (11). See also: M. Okhitovich, "K probleme goroda," *Sovremennaia arkhitektura* 4 (1929): 130-134; M. Okhitovich, "Zametki po teorii rasseleniia," *Sovremennaia arkhitektura* 1–2 (1930): 7–16; and M. Okhitovich, "'Marksistskaia' zashchita kommunal'nogo sotzializma," *Sovremennaya arkhitektura* 5 (1930): 7. For the comparison between Königsberger's concept of "band-town" and the disurbanist linear city, see: Levin, "The village within." Königsberger studied architecture in Berlin, graduating in 1931. ↑

58 See, for example: Kopp, *Town and Revolution*, 168–178; Crawford, *Spatial Revolution*, 131–140; Aglaya Glebova, "'Down with the Skyscrapers of Historical Backwardness,' or the Paradoxes of the Disurbanist Revolution," *Modernism/modernity* 9, no. 2 (February 2025), https://doi.org/10.26597/mod.0313. ↑

59 M. Ia. Ginzburg, "Tatarskoe iskusstvo v Krymu," *Sredi kollektsionerov*, no. 11–12 (1921): 29–40; no. 1. (1922): 19–25; no. 3 (1922) 18–26; no. 7–8 (1922): 22–28. Ginzburg lived in Crimea between 1917 and 1921 and designed the Crimean pavilion for the 1923 All-Russian Agricultural Exhibition in Moscow. ↑

60 Brigada OSA (Aleksandrov, Ermilov, Kuz'min, Kuznetsov, Kibiev, Leonidov, Maksimov, P'iankov, Samarin), "Poiasnenie k sotsialisticheskomu rasseleniiu pri Magnitogorskom khimiko-metallurgicheskom kombinate," *Sovremennaia arkhitektura* 3 (1930): 1–4. ↑

61 See: Crawford, *Spatial Revolution*, 179. ↑

62 M. Barshch, V. Vladimirov, M. Okhitovich, N. Sokolov, "Magnitogor'e," *Sovremennaia arkhitektura* 1–2 (1930): 38–56. ↑

63 For an analysis of the organization of individual units, see: Glebova, "'Down with the Skyscrapers of Historical Backwardness.'" ↑

64 Okhitovich, "Zametki po teorii rasseleniia," 14. On the importance of anarchist ideas for the contemporaneous and

related OSA (Ginzburg and Mikhail Barshch) project of the Green City, see: Levin, "The village within." ↑

65 N. A. Miliutin, *Sotsgorod: The Problem of Building Socialist Cities*, trans. Arthur Sprague (Cambridge, MA: MIT Press, 1974) 70. ↑

66 Miliutin, *Sotsgorod*, 79. ↑

67 L. Hilberseimer, *The New City: Principles of Planning* (Chicago: Paul Theobald, 1944), 70–71. ↑

68 N. Baranskii, "Stranovedenie i geografiia fizicheskaia i ekonomicheskaia" in *Izbrannye trudy. Nauchnye printsipy geografii* (Moscow: Mysl', 1980), 18–51 (25). ↑

69 "Otchetnaia rabota sektsii sotsialisticheskogo rasseleniia stroisektora Gospalna RSFSR," *Sovremennaia arkhitektura* 6 (1930): 1-18. ↑

70 "Otchetnaia rabota sektsii sotsialisticheskogo rasseleniia," 1. ↑

71 See: Alla Vronskaya, "The Utopia of Personality: Moisei Ginzburg's Project for the Moscow Park of Culture and Leisure," *Quaestio Rossica* 4 (January 2015): 40–56. ↑

72 Leonid Lunts, "Parki kul'tury i otdykha gorodov-novostroek," *Arkhitektura SSSR* 5 (1934): 20–29 (24–27, 29). ↑

73 Le Corbusier, Jean Giraudoux, Anthony Eardley, and José Luis Sert, *The Athens Charter* (New York: Grossman Publishers, 1973), 99. ↑

74 M. N. Petrov, "Osnovnye voprosy organizatsii i metodologii planirovki gorodov," Gosplan SSSR, *Rekonstruktsiia gorodov SSSR*, Vol. 1 (Moscow: Standardizatsiia i ratsionalizatsiia, 1933), 46–71 (49–50). ↑

75 M. N. Petrov, "Osnovnye voprosy organizatsii i metodologii planirovki gorodov," 68–69. ↑

76 Petrov, "Osnovnye voprosy organizatsii i metodologii planirovki gorodov," 61. ↑

77 "Postanovlenie Tsentral'nogo ispolnitel'nogo komiteta i Soveta narodnykh komissarov o sostavlenii i utverzhdenii proektov planirovki i sotsialisticheskoi rekonstruktsii gorodov i drugikh naselennykh mest Soiuza SSR. 27 iunia 1933 g," *Sobranie zakonov i rasporiazhenii Raboche-Krest'ianskogo pravitel'stva SSSR za 1933 g.* Otdel pervyi (Moscow: n.p., 1948), 495–497. ↑

78 M. Ginzburg, "Raionnaia planirovka iuzhnogo berega Kryma," Komitet po planirovke iuzhnogo berega Kryma, *Sotsialisticheskaia rekonstruktsiia iuzhnogo berega Kryma. Materialy raionnoi planirovki IuBK* (Gosudarstvennoe izdatel'stvo Krym. ASSR, 1935), 11–19. ↑

79 See: Diana Kurkovsky West, "Cybernetics for the command economy: Foregrounding entropy in late Soviet planning," *History of the Human Sciences* 33, no. 1 (February 2020): 36–51. ↑

80 For a comparative approach, see: Levin, "The village within." Immediate connections included Vadim Pokshishevsky, who taught one of the first courses of urban geography in the Soviet Union at Baransky's Chair of Economic Geography, work as the consultant for the Soviet-Indian collaboration on regionalization. On the Soviet side, his student Galina Sdasyuk coordinated this collaboration in the 1950s–70s. See: Dr. (Miss) P. Sen Gupta and Dr. (Mrs.) Galina Sdasyuk, *Economic Regionalization of India: Problems and Approaches* (New Delhi: A. Chandra Sekhar, 1968). On regional planning in Cuba, see: Eduardo Salinas Chavez, "El ordenamiento geoecológico en la planificacion regional en Cuba," *Medio Ambiente y Urbanizacion* 49 (1994): 89–99 (cited after Marina Frolova, "From the Russian/Soviet landscape concept to the geosystem approach to integrative environmental studies in an international context," *Landscape Ecology* 34, no. 7 (July 2019): 1485–1502). ↑