

Transfers of Modernism: Constructing Soviet Postwar Urbanity

The housing shortage during the postwar period has brought a new surge in the development of prefabrication technologies, especially in 1950s East Germany, France and the Soviet Union— the countries that suffered significant physical damage from the war.

Although the prefabrication building techniques were evidently not an invention of the 1950s and there has been a long tradition of similar types of construction and experimentation in building culture, the need for a new and improved efficiency in construction rapidly emerged in the situation of an extreme postwar housing crisis. Formed by the multiple geopolitical and economic aspects of the postwar architectural context, the new method focused on the construction with large concrete panels prefabricated offsite, which allowed cutting down production costs and significantly reducing time of construction. This development was inseparable from architecture's political and social context: most of the building associated with the new typology in the reconstruction period was subsidized by the state, characterized by the intense involvement of political figures.

Originally developed in France with the initiative of the Ministry of Reconstruction and Urbanism in the late 1940s, the large-panel system building experienced a rapid adaptation across Europe: its aesthetic and technological qualities underwent “back-and-forth” cultural alterations between the countries, and eventually determined the failure of the system in the West, and its long-lasting success in Eastern Europe. The technological basis of most European prefabricated buildings was developed in European states with stable social-democratic policies, particularly in Scandinavia, Great Britain, and France. In France, due to its strong state-run housing programs, Tony Garnier, Jean Prouvé and Le Corbusier have already done preparatory work on the aesthetics and concepts behind experimental industrialized buildings. The Ministry of Reconstruction and Urbanism (MRU) encouraged the development of new forms of construction for housing, and their influence increased with the 1948 arrival of a new minister, Eugène Claudius-Petit, whose priority was to shift the attention from the immediate problems of reconstruction, to the longer-term goals of construction.

The Plattenbauten technologies in East Germany, where architecture became considerably more politicized than in other countries, were based on a dual influence: on one side a technological impact stemming from the more advanced traditions of France, and on the other, the ideological influence from the Soviet side. These tendencies caused a

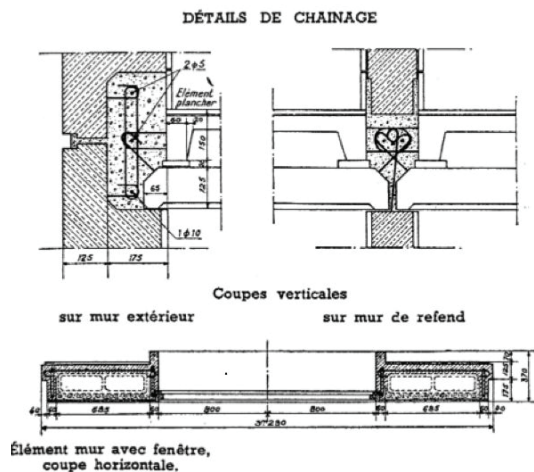
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Figure 1: Bernard Anthonioz, Jean Prouvé, Eugène Claudius-Petit and Le Corbusier, studio at 35 rue De Sèvres, Paris, 1964

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rapidly increasing split within the previously uniform European tradition in prefabricated technologies. While France was advancing the industrialization process in the building sector, East and West Germany were more focused on dissociating their politics (which would inevitably affect architecture and the construction industries) from the war. The prewar technocratic planning of the Nazi State prevented an easy transition into a standardized, rationalized mass-housing mode, as it happened in neighboring countries. In the early 1950s, East Germany quickly shifted towards the style of Soviet Socialist Realism and a more conservative urban planning, criticizing modernism as a “pro-American” building tradition.¹ The design of the Stalinallee—one of the biggest architectural achievements in East Germany—was a purely ideological project and an attempt to establish a clear difference in the very theoretical basis of architecture of the East, following the guidelines from the “Sixteen principles of urban design,” compiled under Kurt Liebkecht after his visit to Moscow. The pamphlet represented a counter concept to the Athens Charter and rejected all aspects of modernist theory: Liebkecht specifically criticized Ernst May’s prefabricated housing experiments in Frankfurt, the concept of satellite towns and linear construction, and condemned the Bauhaus as “cosmopolitan, anti-national and anti-public” and engaging in rationalist architecture. East German architects were in response accused by their western rivals of continuing Albert Speer traditions in architecture. This ideological battle continued until Stalin’s death in 1953 and was brought to end by Khrushchev’s 1954 speech denouncing Stalin’s legacy and proclaiming a total industrialization of cities for both Soviet Union and its satellites (“Besser, Billiger, Schneller bauen”).² That also meant an ideological ‘confusion’ for East Germany that was now forced to embrace the previously loathed modernist style.³ As a strategic ‘loophole’, Herman Henselmann, the head architect of East Berlin, organized an all-country competition for a housing project in the district of Berlin-Fennpfuhl, “allowing” West German architect Ernst May to win. Announcing the winner he officially proclaimed: “Wir haben’s geschafft—unsere Architektur können Sie von der westdeutschen nicht mehr unterscheiden!”⁴ Ernst May’s modernist proposal⁵ marked a point of stylistic “reconciliation” between East and West and represented a purely political move, introducing industrialized building and prefabrication methods to the East German building industry.



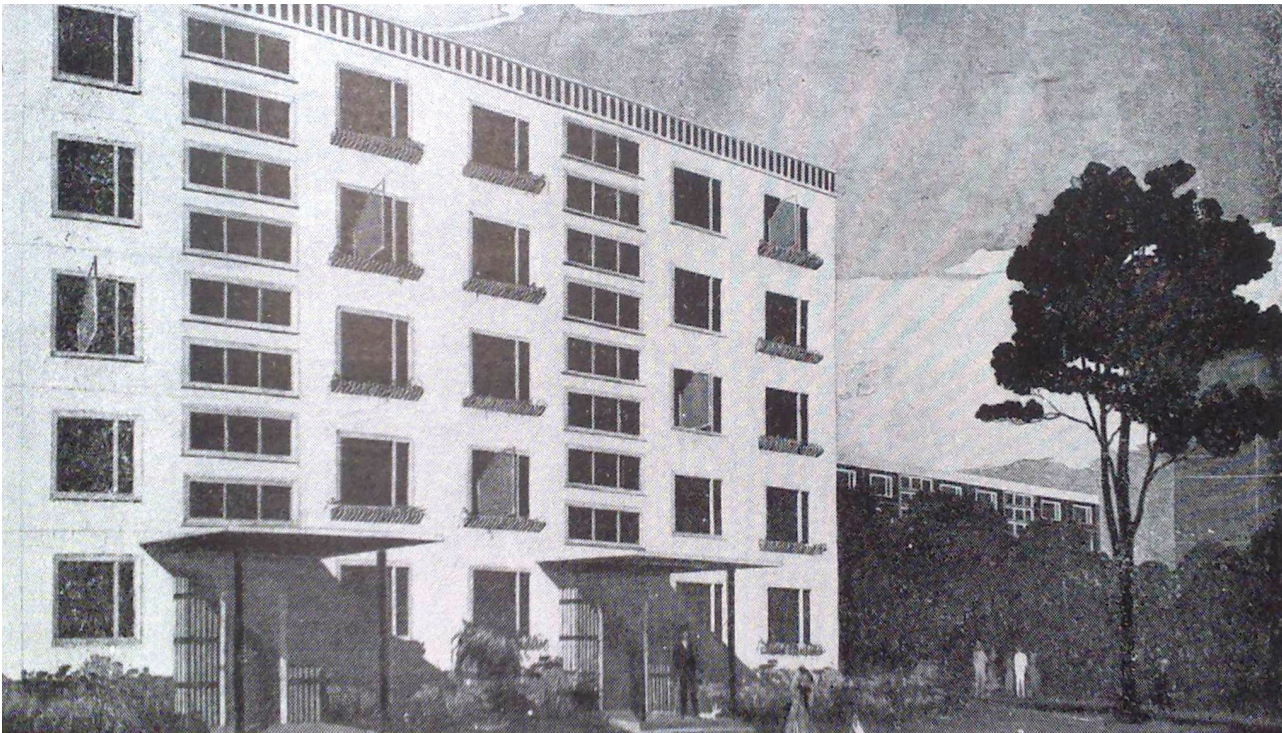
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The Soviet Union was lagging behind the technological development of western European countries, and in the late 1950s adopted the French methods originally designed by the French engineer Raymond Camus in 1948, eventually exporting the adopted French model, transformed by multiple technological, political and cultural aspects, to the developing industrial towns of East Germany.

Figure 2: The “Camus system” in Le Havre: details of the panel and assembly on site.

The Soviet adaptation of the Camus process to the local peculiarities of mass production, large-scale integrated standardization and prefabrication was quick, but the results suffered significantly from the deliberate rejection of the ‘extras’ in accordance with Khrushchev’s rejection of the embellishment as specific to “bourgeois architecture.” Camus’s examples had “design attributes” such as high ceilings, separate bathrooms, built-in blinds and shutters, large kitchens, and varying window sizes depending on exposure to the sun. The Soviet speed and the scale of the micro-district construction required maximum unification, and such details were often omitted.

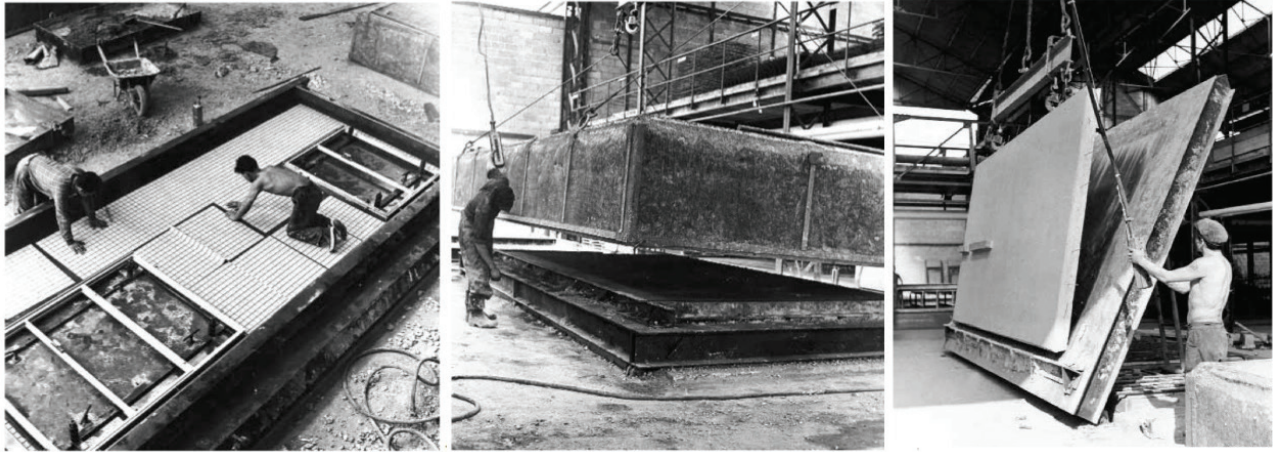
Despite the great influence on the Soviet building industry, Camus was not solely responsible for the introduction of a five-story landscape to postwar Soviet urbanity. Paradoxically, one of the first architects to study and implement this concept on a large scale was Boris Iofan: these experiments were the final stage of his career (mostly devoted to building in Stalinist Empire style) and resulted in a series of typical housing units built in the Izmailovo and Mar’ina Grove districts. He proposed to use plastic panels to reduce the cost of construction.



One of his latest completed projects was the sixteen-story high-rise complex on Scherbakovskaya Street in Moscow: A series of residential buildings were connected with shops and services on the ground floor. In 1952-1953 another “unlikely candidate”, Neo-Classical Ivan Zholtovsky, participated in two rounds of the first competition to develop new models for large-panel prefabricated buildings. He looked for analogies in the Italian Renaissance, eventually choosing the Doge’s Palace in Venice as his primary inspiration, and adapting the composition of the Palace to high-rise apartment buildings in Moscow. He later decided that a large-panel building facade will prove more efficient as a smooth wall, abandoned the idea of a classical cantilever cornice and as the only decorative element, highlighted the crowning cornice (as in the Doge’s Palace).

The projects of the first round of the competition accompanied by Zholtovsky’s article,

Figure 3: North Izmailovo. “Plastic House”: experimental large-panel construction using innovative plastic material technologies. Architects B. Iofan, V. Kalinin, D. Alekseev, K. Sterioni, I. Turunovskaya.



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were published in the 1953 issue of *Arkhitektura SSSR* and made a big impression on the architectural circles, witnessing an entirely 'different' Zholtovsky. In his article he spoke about the necessity to adopt a rational method of artistic understanding of this new type of construction. "In order to address the architecture of large-panel structures it is particularly important to have the full opportunity to freely sculpt the volume of the building. In the circumstances of this particular typology, the architect does not have to pay attention to the delicate articulation of the wall, the nuances of its sculptural plastics, or the decorative details of the facade: this is contrary to the very principles of mass-production and installation of prefabricated panels and the new tectonic expression of the new building material. Thus, in order to achieve expression in architecture of this new type, it is necessary to work with large-scale composition, volume, space, silhouette."⁶

In April 1955, the Moscow Architecture and Construction Council Planning Authority considered and approved Zholtovsky's facades for the prototypes of eight-story apartment buildings. Several months earlier, in his speech at the National Conference of Builders, Khrushchev praised Zholtovsky's designs, regretting that they were still not fully realized: "In 1953, the City Council presented design solutions for the facades of large panel buildings. One of the best solutions was offered by the member of the Academy of Architecture of the USSR, I. Zholtovsky. During the past two years it would have been entirely realistic to adopt this solution as a model and already begin to implement it in practice. However, this has not been done."⁷ The architect and engineer Vitaly Lagutenko, who was officially considered the author of the first prefabricated five-story typology, continued this legacy in a popular housing series K-7. The Soviet version of the history of large-panel construction, however, refers to the national experimental heritage, avoiding references to any foreign influence, such as Camus technologies. "The development of our large-panel construction was preceded by long experimental work of Soviet scientists and engineers, beginning in 1931-1933" are the opening words of the 1952 article⁸ by K. Zhukov, who claimed that the Soviet Union outperformed the US in the use of concrete block construction that preceded large-panel technology.⁹

The description of the K-7 series often states that the ceiling height of 2.5 meters was selected on the basis of calculations of the ideal proportions developed by Le Corbusier, although the one in the "Modulor" offered an even more modest value of 2.26 meters. It is noteworthy that some of the K-7 examples include balconies and in some cases they even 'turn' around the corner of the building, a feature specific to the Camus project.¹⁰ The projects were developed by Gosstroyproekt (with the participation of the Academy of Architecture of the USSR) and Mosgorproekt.¹¹ Officially, the author of the project was

Figure 4: Camus process of on-site installation (preparing and filling the mold) used in Soviet micro-districts. Montesson-sur-Seine.

Lagutenko, who originally proposed a steel frame construction, but due to the large metal consumption (more than 16 kg per 1 m³ of the building), the structure was switched to a reinforced concrete frame (steel consumption was lowered to 3, 75 kg per 1 m³). After this experiment was accepted as successful, starting in 1950, Moscow, Leningrad, Kiev, Magnitogorsk and other major cities began to widely utilize the frameless panel construction.¹² After the initial success, the Resolution of the Council of Ministers no. 1911 from May 9, 1950 “On the Reduction of the Cost of Construction” initiated the first design of highly mechanized factories for the production of reinforced concrete.

In terms of the authenticity of the Soviet designs it is possible to speculate that during his 1960 trip to France Khrushchev acquired the patent for Camus technology (at that time already obsolete), however the principle had been already implemented in the Soviet Union prior to his trip based on images in Western magazines (for example in the Cheryomushki district). Before the launch of the first mass-produced K-7 series, there were other panel-construction technologies. Isolated experiments were already conducted



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before the war, but were not largely successful. In 1948, the Sokolinaya Gora District in Moscow became the first site for experimental housing based on Plattenbau technology exported from Germany, and a year later, Michael Posokhin together with Ashot Mndoyants and Vitaly Lagutenko initiated the construction (Khoroshevskoe highway) of the frame panel housing of ‘local’ design: the panels were cast in metal molds directly on the construction site. These so-called “Stalinist panels” overall proved to be more costly than brick construction and were eventually discontinued.

The large-scale transition to the new and progressive solutions in the field of construction began with the Resolution of the Central Committee of the CPSU and the USSR Council of Ministers on 19 August 1954 “On the Development of Precast Concrete Structures and

Figure 5: Experimental house from the K-7 series, Vitaly Lagutenko, mid-1950s. Grimau Street, 16. Arguably, the first experimental “Khrushchevka” built in 1957. Photo is taken between 1960-1965, in “Arkhitektura Sovetskoy Rossii,” 1987.

Components for Construction,” which included the construction of 402 precast concrete structures and the manufacturing of parts on two hundred experimental sites. On July 31, 1957 the Central Committee of the CPSU and the USSR Council of Ministers adopted a decree “On the Development of Housing Construction in the USSR”, which laid the foundation for a new type of housing development. Soon after, the empty fields around the outer Moscow district of Cheryomushki became the first practical construction site, where at the factory pre-made housing structures were turned into five-story apartment buildings. Arguably, the first Moscow “Khrushchevka,” built in 1957 is located on Grimau Street no. 16.

It should be noted that the first large-panel complexes were based on the four-story model. For example, 16 Grimau Street, which has been preserved to this day and is considered the first ‘Khrushchevka’ in Moscow, has only four floors. The eventually established five-story limit was dictated by the maximum floors in a walk-up building, and was later exceeded when elevators were introduced. The standard five-story typology acquired only minimal variety with the introduction of a new series of II-32 panels that introduced balconies on thin concrete footings. The experience of the Cheryomushki district was later extended to the entire country.

In February 14-25, 1956, the Twentieth Congress of the Communist Party (the first after Stalin’s death) identified major challenges facing the country, such as the improvement and development of the construction industry, the rate of the acceleration of technological progress, and the improvement of the organization of production. These include the projected solution to the long-standing issue of providing the population with separate apartments in order to solve the problem of widespread communal living,¹³ as well as the redistribution of the population within the country. In 1955, four years after the founding of Gosstroy (The State Construction Committee), the Academy of Architecture of the USSR was abolished and replaced by the Academy of Construction and Architecture of the USSR (ACIA). By 1956, the structure of the ACIA and its constitution were finalized based on the maximum number of activities for which the new organization was responsible: in the shortest time possible, the Academy was required to provide architectural practices with the necessary scientific developments, working in parallel on the fundamental problems of history and theory. The scale and the range of the expectations from the ACIA can be judged from the records of its constitution: “In order to accelerate industrialization, improve the quality of construction, reduce construction time and costs to further improve economic growth of the Soviet State and improve living conditions of its population, ACIA will provide: research of the most important scientific problems in construction, architecture, manufacturing, and the use of new building materials, as well as the efficiency of construction, and experimental work in developing new typologies of buildings and structures, the alignment of structures and products; coordination of scientific work done by research organizations and higher technical education institutions working in the field of construction and architecture, to provide extensive information on Soviet and foreign experience in construction, preparation of highly qualified scientific personnel, to ensure cooperation with the ministries and their institutions, as well as the introduction of scientific and technical achievements to the practice of construction, design and manufacturing.”¹⁴

It seems that this lengthy and well-discussed list of tasks of the new ACIA would immediately have the strongest impact on the realization of many solutions of social and economic problems within the architectural sphere; however, in reality it was not as efficient as expected. ACIA was immediately faced with demands of concrete solutions to the urgent problems of practice, not taking into account that the majority of these issues required fundamental research and experimental validations. However, the practice had no desire

to wait, propelled by the government's goal to "build communism" in the very near future. Nonetheless, as the resolutions of important urban problems in reality required a lot of time and money, and despite the urgent demands and lack of funds, it could not have been achieved without at least some level of preparatory work.

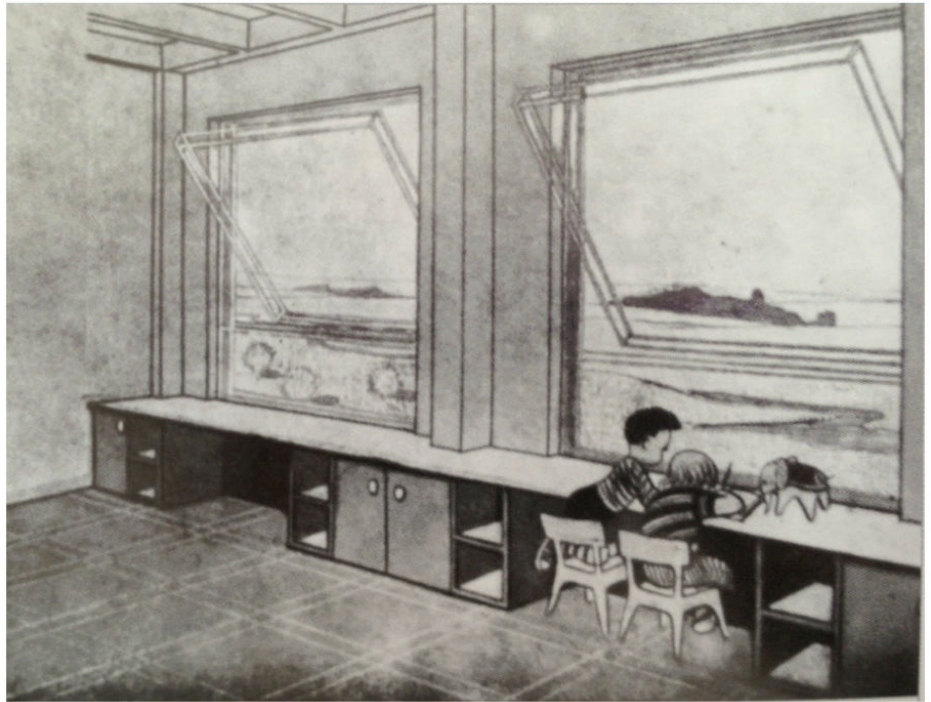
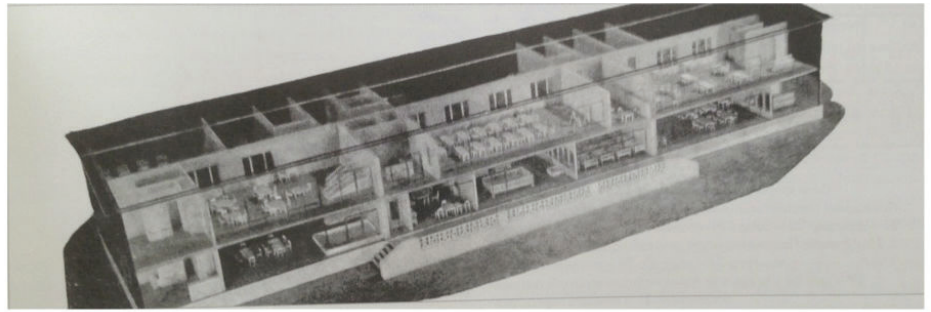
Thus, one can trace a certain necessary logic of interaction of various scientific disciplines in architectural science and practice of that time, such as regional planning and sociology that formed the requirements and goals of the practice. These demands were the task for the disciplines of the typological nature related to the types of buildings: residential, public, educational, etc. These disciplines were created to collect and systemize the general knowledge in design and construction, and on its basis to form construction standards for each architectural typology. Each type of buildings, thus required certain design and construction standards, characteristic only for this particular typology, which were developed by the disciplines adjacent to architecture, such as theoretical mechanics, the study of mechanical equipment in buildings, structural statics, construction economics, that basically dictated the nature of architectural typology. Despite the consistency of the whole system, in practice however, this chain of operation worked somewhat differently. The entire architectural and construction processes were strongly affected by limiting factors such as efficiency, speed of construction and quantity, stated by the government's directives. As a result, the implementation of a scientific approach and the necessary experimental studies often took place during, and sometimes after construction already had begun.

By the beginning of the 1950s it became apparent that building standards were outdated and not fit for the new challenges. The development of the new methods was carried out by the Institute of Urban Development at the ACIA in conjunction with Gosstroy and the outcome document titled "The Norms and Regulations of Planning and Construction" was drafted on the basis of the study of Soviet and foreign experience in urban planning. "The Norms" consisted of eleven sections, which contained data for the design and construction of residential areas and neighborhoods, including standards and guidelines for large-scale urban developments for the near future. "The Norms" were used in experimental design and demonstrative construction, which, as a method were based on the need for the urgent development and testing of specific typologies, which could be immediately used by the architectural practice and were meant to bring improvements in the quality of building. One of the major experimental developments that the ACIA selected for a practical realization was the development of one of the experimental districts in Chelyabinsk.

The experiment was meant to test the idea of an integrated approach, which was also adopted from Western experience. In France the concept of micro-districts (a large residential area with all the necessary infrastructure and consumer services on its territory) was relatively widespread from the 1950s-60s. One of the most successful examples that served as an influence was Grand Ensemble des Grandes-Terres in Marly-le-Roi, designed by Marcel Lods among others.¹⁵ Similarly, the work of British architect A. W. Cleeve Barr, who employed the architectural method of mixed buildings in residential areas, was published on the pages of the major Soviet architectural magazine *Arkhitektura SSSR*, and was widely accessible to Soviet architects.¹⁶ In the Soviet Union, the prototype districts were created on the outskirts of major cities and served as an experimental laboratory for the development of new concepts. They consisted of several building typologies with various parameters intended for use by families with different quantitative composition and income. Such mixed development on the example of Chelyabinsk enabled Soviet architects to use a variety of formal approaches, such as composition, contrast, silhouette, as well as it allowed for additional creative freedom, otherwise restricted under the close control of the authorities.

ENDNOTES

1. Francesca Rogier, "The Monumentality of Rhetoric: The Will to Rebuild in Postwar Berlin" in *Anxious Modernisms. Experimentation in Postwar Architectural Culture*, Rejean Legault and Sarah Williams Goldhagen, eds. (Cambridge, Mass.: MIT Press, 2000).
2. "Better, Faster, and Cheaper" from German.
3. Peter Richter, *Der Plattenbau als Krisengebiet: Die Architektonische und politische transformation industriell errichteter Wohngebäude aus der DDR* (Dissertation zur Erlangung der Würde des Doktors der Philosophie der Universität Hamburg), 2006.
4. "We made it: Our architecture is now indistinguishable from the West German model!" My translation. See Richter, 56.
5. Ernst May's postwar work was rooted in the pre-war experimentation. He had previously worked in the Soviet Union, designing several proposals for experimental new cities based on industrial production methods.
6. I. Zholtovsky, "O nekotorykh priznakakh krupnopanel'nogo domostroeniya", *Arkhitektura SSSR*, no. 7 (1953): 6.
7. I. Onufriev, *Vsesoyuznoe soveshchaniye stroitelej, arkhitektorov i rabotnikov promyshlennosti stroitel'nykh materialov, stroitel'nogo i dorozhnogo mashinostroeniya, proektnykh i nauchno-issledovatel'skikh organizacij*. (National Conference of Builders, Architects, Workers in the Construction, and Employees of Design and Research and Development Organizations), 30 November - 7 December, 1954. Transcript. (Gosizdat: Moscow, 1955).
8. K. Zhukov, "Ob arkhitekture krupnopanel'nykh zdaniy", *Arkhitektura SSSR*, no. 9 (1952)
9. However, already in 1910, one of the first experiments of large-panel construction was implemented in Forest Hills Gardens in Queens, New York.
10. Some of these examples can be found in Zelenograd.



The experimental district employed an open-plan principle, which allowed to place residential buildings primarily along the perimeter, and to locate schools and childcare centers in close proximity to public parks. The landscape architects have projected four types of green areas for the new district: landscaped inner yards, landscaped areas between the residential buildings, smaller parks for residential complexes and the central public park that could be used by the population of the neighboring districts. Experimental buildings employing an open-plan principle were considered a promising urban concept at the time and was seen as a main line of propaganda to advocate for a broad introduction of mass housing developments and new, progressive housing typologies, which, as a final goal, were all to provide every family with a separate apartment. Based on the principle of differentiation within typologies, it was projected to develop five housing types in Celyabinsk: the first type presented four-story sectional building complexes, with one-, two-, three- and four-bedroom apartments; the second example was a six-story hotel-type buildings for singles, the third type—six-story hotel-type buildings for small families, the fourth—two-story row houses for families of five, six and more people, and finally, the fifth type—one-story buildings for the elderly. It was assumed that the fifth type would be eventually used as the main element in urban planning of future districts and even entire cities. It was believed, however, that with the rise in the rate of resettlement and the growing demands for higher quality housing in the future, the building typologies would adjust accordingly to the improving living conditions. The experience gained from the prototypes was used not only in designs of industrial areas, but also in planning the new so-called

Figure 6: Design for an experimental prototype of a kindergarten for 135 children. Model and Interior (including 'modernized operable window frames and a built-in desk. Chelyabinsk.

Science Towns. In 1958 the research institutes at the Academy developed a project for Akademgorodok near Novosibirsk, which was to become the center of the Siberian Branch of Science. Several questions were raised, however, with the increasing number of new cities in the Soviet Union: one of the most important ones was the question of the optimal size of the Soviet city as well as the choice of its strategic location, that needed to take into account both its present and future needs. However, at the time there were many examples where the site of a projected city was chosen without the participation of the planning experts: such were the cases for Magnitogorsk, Novokuznetsk, Komsomolsk-on-Amur, and other industrial cities. The responsibility for the revision of these errors was naturally placed on the scientific research and design institutes at the ACIA.

Although questions of experimental design had national significance and were controlled by the government, often, construction and design offices in general did not have the budget to pay for the required experimental preparatory design work, testing of new materials, as well as the implementation of new ideas. Similarly, the factories that produced prefabricated building materials did not include experimental work in their agendas and budgets, which became one of the main reasons for a lower quality of construction. One of the reasons for such weak implementation of scientific research into practice was the fact that the new system of planning did not consider the lack of financial interest of agencies involved in construction, and in the introduction of new developments into production. Thus, at the first session of the ACIA, which took place in 1956, and addressed the need for experimental work as part of the architectural practice, M. Makotinsky underlined the enormous complexity of the implementation of experimental design. In particular, he offered an example of the Academy's failed attempts to suggest new interior finishes and equipment for a newly developed building typology: "The Ministry of Industry and Building Materials has agreed to perform the first test of a new type of PVC linoleum in different colors. The proposal was submitted to the Mytishchi plant, which despite a long correspondence, still failed to produce this requested experimental series."¹⁷ At the same session, the vice-president of the Academy A. Vlasov, noted that "our research organizations cannot provide the complete design recommendations to practicing offices due to the small experimental division with the Academy."¹⁸ As a result, and despite its initial inability to solve the problems of such scale, the Academy had to nevertheless officially take over the initiative in experimental design and its implementation. For these purposes, in February 1958, the government established a scientific research Institute of Experimental Design (NIIEP). Its main task was to develop "prototype projects of prospective typologies for residential, public, industrial, agricultural buildings and structures, as well as new advanced construction technologies and the development of innovative engineering equipment and building materials."¹⁹

Within a short period of activity as an autonomous institution (it only existed for two years), the Institute had created many new and promising projects and even had implemented a few of the prototypes in practice. Nevertheless, its scientific experimental work was severely criticized on the pages of professional publications such as *Sovetskaya Arkhitektura*: "In its early stages, the Institute outlined the unnecessarily excessive number of experimental objects and spread its attention thin on too many sites, making it difficult to implement the prototype projects in practice. In some of its studies, there was detected a superficial and uncritical use of forms and methods of foreign architecture. Some of the individual projects can be even criticized as "promotional" in their nature. The proposed excessive amount of design options for the development of experimental housing types was a methodological mistake."²⁰ However, in reality, the shortcomings in the work of the Institute for the most part could be associated with the lack of resources and staff due to the relatively minor and isolated position within the structure of the Academy, which did

11. Moscow City Project (Mosgorproekt) was established in 1944 and was responsible for the development and planning of highways, public squares, and residential districts, projected in the General Plan of Reconstruction. In the 1950s, its responsibilities also included the development of large-panel construction. ("On the Organization of the Architectural Institute "Mosgorproekt", 15 June 1944)
12. V. Ivanov, *Istoriya stroitel'noj tekhniki* (Moscow, 1962)
13. Communal apartments or *kommunalki* referred to the state-owned apartments populated by the state authorities in accordance with the minimum standards of living area per person, regardless of marital status and configuration of the apartment tenants. Typically, a communal apartment housed several families or single individuals. Each family occupied one room, while the common areas such as bathroom, toilet and kitchen, as well as a corridor and entrance hall were shared between the families.
14. RGAE (Russian State Archive of Economics) Fond 339, Opis 3, Delo 181, 1.
15. On this project Marcel Lods collaborated with Russian-born engineer Vladimir Bodiansky, who also closely worked with Le Corbusier. In 1945, Bodiansky and Le Corbusier co-founded the technical design office *Atelier de Bâtitseurs*.
16. *Arkhitektura SSSR*, no. 5 (1960).
17. RGAE, Fond 293, Opis 5, Delo 3.
18. *Ibid.*
19. RGAE, Fond 293, Opis 5, Delo 110.
20. A. Dorokhov, B. Rubanenko, "Osnovnye napravleniya zhilykh i obshchestvennykh zdaniy", *Sovetskaya Arkhitektura*, no. 13 (1961).

11. Moscow City Project (Mosgorproekt) was established in 1944 and was responsible for the development and planning of highways, public squares, and residential districts, projected in the General Plan of Reconstruction, as well as in the postwar reconstruction. In the 1950s, its responsibilities also included the development of large-panel construction. ("On the Organization of the Architectural Institute "Mosgorproekt", 15 June 1944)
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20. A. Dorokhov, B. Rubanenko, "Osnovnye napravleniya zhilykh i obshchestvennykh zdaniy", *Sovetskaya Arkhitektura*, no. 13 (1961).

not allow it to draw on the existing experience as well as to meet deadlines and adequately address the objectives of the demands for advanced developments in architecture.

Thus, on one side, the industrialization, the country's transition to mass construction, the government's policy in strengthening the scientific and technological progress in all sectors of architecture and construction, led to the creation and implementation of new architectural and design solutions, materials and technology in the shortest time possible. On the other side, the lack of administrative organization and supervision, financial shortcomings and pressing deadlines, as well as nonsystematic and the often superficial use of foreign experience, prevented the rise of experimental design into its own independent role within the architectural field.

Thus, on opposite to common belief, the prefabricated large panel construction was not an invention of the socialist states, but largely an import from the West. A common perception of the contrary has eventually turned the German *Plattenbauten* based on the French *Camus* system into a symbol of socialism. Much of this phenomenon is perhaps owed to the qualitative aspects associated with prefabrication—its cheap construction, uniform aesthetics (or lack of design) and overall low quality of construction as an attribute of mass socialist housing. However, despite its problematic architectural aesthetics and sometimes inadequate quality of construction, this century-old tradition has triggered constant experimentation and the vigorous exchange of architectural ideas between East and West, bridging the historical and political gap and acting as a reminder of both mistakes and aspirations of modernity-driven postwar Europe.